

IMPACT OF TECHNOLOGY ON STUDENTS' ACHIEVEMENT IN ENGLISH VOCABULARY IN SENIOR SECONDARY SCHOOLS IN ODEDA LOCAL GOVERNMENT AREA, OGUN STATE

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Abstract

This study investigated the impact of technology on students' achievement in English vocabulary in Odeda Local Government Area, Ogun State. The study adopted the survey research design. Three senior secondary schools were randomly selected from 12 public senior secondary schools in Odeda Local Government Area of Ogun State. Fifty SS II students were randomly selected from each school making a total number of 150 SS II students. A questionnaire on the Impact of Technology on Achievement in English Vocabulary ($r=0.76$) was used for data collection. The instrument was validated by experts in Language Education. Data collected were analysed using descriptive statistics of frequency count, percentage scores, mean, standard deviation and inferential statistics of t-test at 0.05 level of significance. Findings of the study revealed among others that there was no significant difference between the level of impact of technology on male and female students' achievement in English vocabulary ($t = -.411$; $df=148$; $p>0.05$). Based on the findings, it was recommended among others that English language teachers should create a friendly and supportive environment that will allow technology to be properly used in teaching English vocabulary.

Keywords: Technology, English Vocabulary

Introduction

The English language is unique in Nigerian education because of the significant role it plays. It enhances students' educational attainment and improves their communicative competence. Nigerian government made it a core and compulsory subject for students in Nigerian schools. The importance of the language in Nigeria's educational system cannot be over-emphasized because it plays a crucial role. Apart from being the medium of instruction, especially at the upper primary, secondary and tertiary levels of education, it is also the language of the textbooks (Ezeokoli, 2005). Since proficiency in English is mandatory for academic and career advancement, efforts must be made to ensure teaching and learning of the subject is effective. English is important in securing good jobs and a credit pass in the language is a prerequisite for admission into the universities (Ohia, 2008; Oyeleye, 2016). Students who are not proficient in the English language will find it difficult to make meaningful progress in school (Fakeye and Ogunsiji, 2009).

Vocabulary is central to the teaching of the English Language. Without sufficient vocabulary, it will be impossible for students to understand other people or express their ideas. So, vocabulary aids expression and communication. Hornby Dictionary (2004) defines vocabulary as all the words that someone learns, knows and uses. It could also be defined as the special set of words used in a particular kind of business or

work. It is the lexis or the entire stock of words in any language. Vocabulary is the total number of words that are needed to communicate ideas and express a speaker's meaning. A student who lacks the knowledge of vocabulary will perform poorly in the English language. Without grammar very little can be conveyed, without vocabulary, nothing can be conveyed (Araromi & Olatunji, 2020).

Vocabulary is the number of lexicons or items used by an individual to communicate effectively in a particular language. It is described as one of the components of reading. It is the essential word that a reader takes cognisance of while reading to comprehend a passage (Oyinloye & Ayodele, 2020). Nation (2001) emphasised that vocabulary has three important aspects which are form, meaning and use. The form of a word deals with pronunciation (spoken word), spelling (written form), and any word that makes up the particular item (such as prefix, root and suffix). Meaning is a concept, what is being referred to and the association that comes to mind when people think about a specific word or expression while use is a combination of both receptive and productive dimensions. Knowing these three aspects for each word will assist students' ability to read.

Vocabulary acquisition is one of the most essential skills for learning. If a reader does not understand word meanings, understanding content can be very difficult. Typically, students are expected to read a textbook and instantly know what the particular text is talking about. Without knowing what the vocabulary means, students will have difficulty mastering their content material (Fisher, Grant and Frey, 2009; Donnelly and Roe, 2010). As learners develop greater fluency and expression in English, it is significant for them to acquire more productive vocabulary knowledge and to develop their personal vocabulary learning strategies. Vocabulary knowledge is the knowledge of the quantity of words and word meanings that one has in a particular language (Thornbury & Harmer, 2002). It is also described as not just knowing the dictionary meaning or meanings of a word, it also means knowing the words commonly associated with it (its collocation) as well as its connotation including the register and its cultural accreditations (Thornbury & Harmer, 2002).

If language structures make up the skeleton of a language, then it is vocabulary that provides vital organs and flesh. The English language is considered to have the largest vocabulary in the world (Crystal, 2002). Vocabulary is an aspect of the English language which is exhibited during communication. It indicates that a learner has learnt a particular language at any given time in his/her experience. It improves students' literacy and verbal test scores; this is so in clear expression and confidence in doing so. The situation encourages the students' curiosity skills to have an interest in learning to be developed. The vocabulary items enhance the improvement ability to think critically and creativity too to make him comfortable during pressure or when faced with challenges.

Despite the importance attached to the teaching and learning of English vocabulary especially at the secondary school level, students' performance in English Language in both internal and external examinations is still not encouraging. The table below shows the analysis of the West African Senior School Certificate Examination results from 2006 to 2015.

Students' performance in the English Language in the West African Secondary School Certificate Examination (WASSCE) May/June 2006-2015

Year	Total Entry	Total Sat	Credit above (A1-C6)	Pass		
				D7	E8	F9
2006	1170523	1154266 98.61	375,001 (23.48%)	164163 14.2223	229831 19.9114	342311 29.6502
2007	1270137	1252570 98.62	379,831 (30.32%)	242666 19.3734	223712 17.8602	379006 30.2583
2008	1292910	1274166 98.55	446,285 (35.02%)	215245 16.8630	190697 14.9664	400126 31.4030
2009	1373009	1355725 98.74	563,294 (41.55%)	197960 14.9340	202464 14.9340	314965 23.2322
2010	1331381	1307745 98.22	459,404 (35.13%)	158597 12.13	249125 19.05	405677 31.02
2011	1540141	1514164 98.31%	866,692 (57.24%)	182709 12.07	183667 12.13	275923 18.22
2012	1695878	1658887 97.82	970,678 (58.51%)	193015 11.64	183985 11.09	272795 16.44
2013	1686990	1660056 98.40	898,418 (51.62%)	229491 13.82	178719 10.77	353428 21.29
2014	1655794	1636103 98.81	647,100 (39.55%)	263979 16.13	231700 14.16	460863 28.17
2015	1602362	1583797 98.84	902,947 (57.01%)	248320 16.67	180719 11.41	222732 14.07

Source: Statistical Office, WAEC, Lagos, Nigeria (2015)

Studies have indicated that the use of traditional methods alone cannot make students globally literate and succeed in this information age (Wells, de Lange & Fieger, 2008). New methods of effective teaching and learning, which meet the expectations of the diverse students and which engage them, should be explored and implemented. Teachers need to use technology for effective teaching and learning processes (Olatunji & Akinsulire, 2022). Efforts to address the problem of teaching and learning of English Language have made scholars and researchers carry out numerous studies. Students' perception of and attitude to online teaching during Covid-19 lockdown: Implications for students' achievement in English grammar (Okeke 2021), Students' attitude to online learning (El-Gamal & El-Aziz, 2011), students' attitude to the use of ICT to support learning (Pappaioannou & Charalambous, 2011; Sweeney and Geer, 2010) and Teachers'

awareness of, attitude to and use of ICT in English language classrooms (Bafunso & Kolawole, 2021). All these studies came up with good contributions to the teaching and learning of the English Language especially but with less emphasis on teachers' perceived influence of technology on students' achievement in English vocabulary

Unquestionably, the use of technology for teaching and learning has been proven to be fundamental and helpful in achieving these objectives; therefore, the National Policy on Education mandates technology integration at all levels of education (NPE, 2013). According to Pitler (2006), "when applied effectively, technology not only increases students' learning, understanding, and achievement, but also augments their motivation to learn, encourages collaborative learning, and develops critical thinking and problem-solving strategies". All these skills and more, as listed by Pitler, are listed as 21st-century skills. As stated in the NPE (2013) is a need for classrooms to be matched with the expectations of the 21st century world. It seems important, therefore, to ensure that young learners develop functional and transferrable skills in the use of technology as well as guide them in making productive use of technology tools in the classroom (Hayes, Mary, Whitebread and David, 2006). Despite the importance attached to the use of technology, especially in teaching English Language. It has been discovered that it has not been given much attention in secondary schools in Odeda Local Government Area, Ogun State. Therefore, this study investigated the impact of technology on students' achievement in English vocabulary in Odeda Local Government Area, Ogun State.

Statement of the Problem

Vocabulary is the number of lexicons or items used by an individual to communicate effectively in a particular language. It is an aspect of the English language as a subject in school and it is also exhibited during communication. Despite the importance attached to the teaching and learning of English vocabulary especially in secondary schools, students' performance in English Language has not been encouraging. As a way of addressing this problem, language experts and scholars in education have advocated the use of Information Communication Technology to improve teachers' competence and pedagogical skills as a way by which teaching the English language can be improved. All these studies came up with good contributions to the teaching and learning of the English language especially in secondary schools but with less emphasis on the impact of technology on students' achievement in English vocabulary in Odeda Local Government Area, Ogun State. Therefore, this study investigated the impact of technology on students' achievement in English vocabulary in Odeda Local Government Area, Ogun State. **Purpose of the Study** This study determined:

1. the impact of technology on students' achievement in English vocabulary in Odeda Local Government Area, Ogun State?
2. the difference between the impact of technology on male and female students' achievement in English vocabulary

Research Questions

The following research questions guided the research:

1. What is the impact of technology on students' achievement in English vocabulary in Odeda Local Government Area, Ogun State? **Hypothesis**

H₀₁: There is no significant difference in the mean response ratings of male and female students on the impact of technology on students' achievement in English vocabulary in Odeda Local Government Area,

Ogun State **Methodology**

The survey research design was adopted for the study. Three senior secondary schools were randomly selected from twelve public senior secondary schools in Odeda Local Government Area of Ogun State. Fifty SS II students were selected from each school making several 150 SS II students (46 males and 104 females). In all, a total number of 150 SS II students participated in the study. A questionnaire on the Impact of Technology on Achievement in English Vocabulary ($r=0.76$) was used for data collection. Data collected were analysed using descriptive statistics of frequency count, percentage scores, mean, standard deviation and inferential statistics of t-test at 0.05 level of significance.

Results

What is the impact of technology on students' achievement in English vocabulary in Odeda Local Government Area, Ogun State?

Table 4.2: Showing the impact of technology on students' achievement in English vocabulary

S/N	Items	SA (%)	A (%)	D (%)	SD (%)	M	Sd
1	Technology promotes the learning of vocabulary among students.	18 12.0	56 37.3	60 40	16 10.7	2.51	.841
2	Technology makes students hard-working.	22 14.7	60 40	55 36.7	13 8.7	2.61	.843
3	Technology gives students have good impression of learning English vocabulary.	16 10.7	54 36.0	69 46.0	11 7.3	2.50	.784
4	Technology increases students' interest in learning English vocabulary.	18 12.0	50 33.3	70 46.7	12 8.0	2.49	.809
5	Technology stimulates students' ability to think very fast.	16 10.7	59 39.3	60 40	15 10.0	2.51	.817
6	Technology should be banned due to poor networks.	24 16	53 35.3	56 37.3	17 11.3	2.56	.894
7	Technology changes students' perception of learning English vocabulary.	16 10.7	70 46.7	51 34.0	13 8.7	2.59	.795
8	Technology can be a challenging activity.	33 22	71 47.3	33 22.0	13 8.7	2.83	.873
9	Technology facilitates the development of students' competency.	24 16.0	71 47.3	45 30	10 6.7	2.73	.810
10	Technology does not develop students' ability to learn English vocabulary.	16 10.7	42 28.0	75 50	17 11.3	2.38	.825

11	Technology makes students passive recipients of knowledge.	22 14.7	44 29.3	66 44	18 12.0	2.47	.887
12	Technology makes students have a positive attitude towards learning English vocabulary.	17 11.3	47 31.3	65 43.3	21 14.0	2.40	.867
13	Technology changes students' wrong impression about learning English vocabulary.	13 8.7	43 28.7	75 50.0	19 12.7	2.33	.808
14	Technology consumes money.	21 14	61 40.7	53 35.3	15 10.0	2.59	.853
15	Technology makes students attend class regularly.	27 18	54 36	56 37.3	13 8.7	2.63	.878
16	Technology makes students to be lazy.	38 25.3	83 55.3	21 14.0	8 5.3	3.01	.781
17	Technology is not a reliable platform for teaching English vocabulary.	38 25.3	90 60	17 11.3	5 3.3	3.07	.706
18	Technology does not allow students to ask questions where necessary.	40 26.7	83 55.3	21 14.0	6 4.0	3.05	.754
19	Technology does not allow students to increase their English vocabulary.	18 12.0	33 22	87 58	12 8.0	2.38	.800
20	Technology is not good for teaching English vocabulary.	42 28.0	66 44.0	28 18.7	14 9.3	2.91	.915
Weighted Mean: 2.63 Threshold: 2.50							

Table 1 reveals the impact of technology on students' achievement in English vocabulary. It reveals the weighted mean of 2.63 out of the 4.00 maximum obtainable scores, which is higher than the standard mean of 2.50. This means that the impact of technology on students' achievement in English vocabulary is very positive.

H₀₁: There is no significant difference in the mean response ratings of male and female students on the impact of technology on students' achievement in English vocabulary in Odeda Local Government Area, Ogun State

Table 2: Showing t-test analysis of the difference between the level of impact of technology on male and female students' achievement in English vocabulary

Group	N	Mean	Standard Deviation	Mean Difference	t	df	p-value	Remarks
Male	46	53.3696	2.49763	-.19774	-.411	148	.668	Not sig.
Female	104	53.5673	2.80348					

Table 2 shows the difference in the mean response ratings of male and female students on the impact of technology on students' achievement in English vocabulary using the independent samples t-test analysis. The result indicates that there is no significant difference between the mean response ratings of male and female students on the impact of technology on students' achievement in English vocabulary ($t = -.411$; $df=148$; $p>0.05$). This implies that gender does not cause a variance in the mean response ratings of male

and female students on the impact of technology on students' achievement in English vocabulary.

Discussion of the Findings

The findings of the study revealed that the impact of technology on students' achievement in English vocabulary was very positive. In support of this finding, Moganashwari (2013) and Bafunso and Kolawole (2021) reported that the use of ICT for teaching had a positive impact on the English language. This is against the study of Bindu (2017) who revealed that in their separate study, the use of ICT for the teaching of English Language was low. The findings of the study revealed that there was no significant difference between the mean response ratings of male and female students on the impact of technology on students' achievement in English vocabulary. This is in line with the view of Okeke (2021) who reported that there was no significant difference between male and female students' impact of ICT on students' achievement in English Language. This is against the findings of Coates, James and Baldwin (2005) who discovered that females have general tendencies to think in negative ways about the tasks in which they engage. **Conclusion**

The study has shown that English vocabulary could be enhanced through the use of technology. Based on the findings of this study, it can be concluded that the impact of technology on students' achievement in English vocabulary was very positive and gender did not cause a variance in the mean response ratings of male and female students on the impact of technology on students' achievement in English vocabulary. The study has provided a better understanding of the impact of technology on students' achievement in English vocabulary in Odeda Local Government Area, Ogun State.

Recommendations

Based on the findings, the following recommendations were made:

1. English language teachers should create a friendly and supportive environment that will allow technology to be properly used in teaching English vocabulary.
2. The Teaching Service Commission (TESCOM) and other educational bodies should organise seminars, workshops and other in-service training for English language teachers on how they can use technology to teach English vocabulary.
3. Teachers should be encouraged to use technology in teaching English vocabulary.
4. The government should provide technological tools and facilities that will make teaching English vocabulary easy.

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Biodata

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