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UTILIZATION OF ELECTRONIC DICTIONARY IN THE TEACHING AND LEARNING OF ENGLISH GRAMMAR IN SENIOR SECONDARY SCHOOLS IN NSUKKA LOCAL GOVERNMENT AREA OF ENUGU STATE

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Abstract

This study investigated the utilization of electronic dictionaries in teaching and learning English grammar in senior secondary schools in Nsukka LGA. Four research purpose and questions guided the study. The study adopted descriptive research design and was carried out in Nsukka LGA, Enugu state. The population comprised of all the 5,800 English language students. The study made use of 300 students as the sample. The study used checklist and a researcher's developed questionnaire for data collection. The checklist is titled: Availability of Electronic Dictionary for teaching grammar in English language Questionnaire (AED-TELQ). The instruments were validated by three experts for its credibility. Data collected from the 30 respondents in Udenu LGA was used to establish the internal consistency reliability of the instrument using the Cronbach Alpha formula. The instrument yielded a reliability index of .80, .78, .81 and .93 for the overall instrument. respectively. The instruments were administered to the respondents, while the data were analysed using frequencies, percentages, mean, standard deviation and t-test statistics. The result revealed that greater percentage of electronic dictionary were not available in senior secondary schools in Nsukka local government area Enugu State; to low extent teachers use electronic dictionaries in the teaching and learning of English grammar; there is low extent to the pedagogical ways teachers integrates electronic dictionaries into grammar lessons; and there are benefit of electronic dictionaries in grammar lessons in senior secondary schools in Nsukka Local Government Area.. It was thereafter recommended among others; provision of Infrastructure: Ensure availability of internet access, mobile devices, and power supply in secondary schools; teacher Training where they will organize workshops to equip teachers with skills to integrate EDs effectively; curriculum; revision; incorporate digital literacy and ED use into the English curriculum for grammar and vocabulary development; monitoring and Supervision where school heads and supervisors should ensure EDs are used appropriately to prevent misuse; awareness campaigns to sensitize students and parents about the benefits of EDs and encourage proper use at school and home.

Keywords: Utilization, Electronic Dictionary, Teaching, Learning, English Grammar, Senior Secondary Schools.

Introduction

The English language serves as the primary language in several countries, including Australia, Canada, New Zealand, the United Kingdom, and the United States, and it functions as a second language in many multilingual nations such as India, Singapore, and the Philippines. Moreover, it is an official language in several African countries, including Liberia, Nigeria, and South Africa, and is spoken in over 100 countries globally. Crystal (2012). As a result, English is widely taught around the world and often serves as a common medium of communication in travel, business, education, and other international contexts. In the Nigerian context, the English language holds a position of paramount importance. It functions not only as the official language but also as the primary medium of instruction across all levels of the formal education system. From upper primary to tertiary education, English is used for teaching, learning, assessment, and official communication. In a multilingual society like Nigeria where over 500 indigenous languages are spoken English acts as a unifying force and a gateway to both educational and socio-economic advancement. Consequently, proficiency in English is considered essential for academic success and national integration. Bolton, and Graddol (2019). Hence, the need for digital tools in its teaching and learning.

The advent of digital tools has reshaped language learning practices worldwide. Electronic dictionaries (EDs) including pocket devices, dictionary apps and online/desktop lexical resources offer quick access to definitions, example sentences, grammatical labels, collocations and pronunciation support, making them potentially valuable for classroom grammar instruction and learner autonomy. Empirical reviews show a marked increase in research on dictionary use since 2010, largely driven by the rise of digital technology; studies report that ED users often look up words more frequently, benefit in vocabulary learning and retention, and exploit multifunctional features (e.g., pronunciation, collocation, example sentences) that printed dictionaries do not provide as accessibly. In EFL/ESL contexts, electronic dictionaries have been associated with improved vocabulary learning and faster look-up behaviour, and they can contribute indirectly to grammar development because learners who find accurate grammatical labels and example sentences can notice syntactic patterns and correct forms. Several experimental and quasi-experimental studies report positive effects of ED use on lexical and receptive language outcomes; other studies also show promising effects for speaking and writing when learners use EDs during task-based activities. However, successful integration of EDs in classroom grammar instruction depends on availability of devices, teachers' awareness and training, learners' dictionary skills, and the degree to which the curriculum and classroom practices encourage ED use. Studies in Nigeria (including work in Enugu State and Nsukka LGA) indicate that technology-based resources are unevenly available and often under-utilized in secondary schools; teachers' proficiency and institutional provision of ICT tools remain significant constraints on effective digital instructional practice.

However, despite its central role, English is not the first language for the majority of Nigerians. For most learners especially at the senior secondary level it is a second or even third language, acquired after their mother tongue and possibly a regional lingua franca such as Hausa, Yoruba, or Igbo. This multilingual complexity presents several challenges to English language acquisition, particularly in mastering grammar, which is the foundation of effective oral and written communication. Grammar provides the structure, clarity, and logic needed to convey meaning accurately. Therefore, without a solid grasp of grammatical principles, students

often struggle with coherence, sentence structure, tenses, and subject-verb agreement. These difficulties are even more pronounced in rural and semi-urban areas such as Nsukka Local Government Area of Enugu State, where educational resources are often limited and teaching quality may vary.

Traditionally, the teaching of English grammar in Nigerian secondary schools has relied heavily on rote learning, textbook-driven instruction, and teacher-centered approaches. These methods often emphasize repetition and memorization over meaningful engagement with language, thereby failing to accommodate diverse learning styles or promote learner autonomy. Furthermore, many teachers continue to employ outdated instructional strategies that do not align with modern educational needs. As education systems worldwide increasingly embrace technology to foster student engagement and learning efficiency, this persistent reliance on traditional methods has created a disconnect between pedagogical practices and the evolving needs of 21st-century learners.

With the advancement of technology, innovative tools have emerged that can significantly enhance language instruction. Among these tools is the electronic dictionary—a digital resource that offers users immediate access to definitions, grammatical information, pronunciations, and example usages. Unlike traditional print dictionaries, which can be cumbersome and time-consuming, electronic dictionaries are easily accessible through mobile phones, tablets, and computers. In addition, they often come with features such as audio pronunciation, visual aids, multilingual support, and interactive grammar tools. These features make electronic dictionaries especially appealing to digitally literate students who are accustomed to instant information retrieval (Nation, 2001). Research has shown that electronic dictionaries support not only vocabulary development but also grammar learning and reading comprehension. For instance, Chen (2010) noted that students who used electronic dictionaries gained greater independence and confidence in language use. These learners were able to verify meanings, explore usage contexts, and reinforce grammar rules in real time thus reducing reliance on teacher explanations and rote learning. Similarly, Koyama and Takeuchi (2004) found that students using digital dictionaries demonstrated higher retention of vocabulary and improved application of grammatical rules. The immediate feedback offered by these tools facilitates on-the-spot correction and more personalized learning experiences.

In educational settings like Nigerian secondary schools where teacher-student ratios are high and infrastructure is often lacking electronic dictionaries present a promising solution to some of the systemic issues affecting language learning. They allow students to access grammar support outside the classroom and encourage self-directed learning. For teachers, these tools offer a means to enhance instructional delivery, support differentiation, and bridge resource gaps where textbooks or grammar references are outdated or unavailable. Nevertheless, despite their potential, the actual integration of electronic dictionaries in Nigerian classrooms remains limited. This underutilization can be attributed to several factors. Firstly, access to digital devices and stable internet connections is uneven, particularly in rural areas like Nsukka. While mobile phone ownership has grown across Nigeria, the extent to which these devices are used for educational purposes is still unclear. Secondly, many teachers lack the training, confidence, or motivation to incorporate digital tools into their teaching. Resistance to change and adherence to traditional practices further inhibit the adoption of technology-

based methods. Additionally, the ongoing digital divide exacerbates educational inequality, with urban students often having better access to resources than their rural counterparts.

Moreover, there is a notable gap in research on how electronic dictionaries affect grammar acquisition specifically in Nigerian secondary schools. While existing studies tend to focus on vocabulary or general reading skills, few have explored the impact of EDs on grammatical competence. This is a critical omission, considering that grammar remains a central component of English instruction and is rigorously assessed in national exams such as the West African Senior School Certificate Examination (WASSCE) and the National Examination Council (NECO) exams. The situation in Nsukka Local Government Area exemplifies the challenges faced by many semi-urban and rural communities in Nigeria. Although there is increasing awareness of the educational benefits of digital tools, infrastructural and contextual barriers continue to limit their effectiveness. Nevertheless, anecdotal evidence indicates that some students use mobile phones to access online dictionaries or download dictionary apps, particularly during exam preparation. However, it remains unclear how widespread and effective this usage is, and whether it significantly impacts students' grammar performance.

Against this background, the present study seeks to investigate the utilization of electronic dictionaries in the teaching and learning of English grammar in senior secondary schools in Nsukka. Specifically, it aims to explore the frequency, manner, and purpose of their use, as well as the perceptions and attitudes of both teachers and students. By examining how electronic dictionaries are integrated into classroom instruction and independent learning, the study aims to uncover their benefits, limitations, and implementation challenges. This research is significant for several reasons. Firstly, it addresses a crucial aspect of language education grammar which is vital for academic achievement and communicative competence. Secondly, it contributes to the under-researched area of educational technology in the Nigerian context, thereby enriching the growing discourse on ICT in education. Thirdly, the findings are expected to inform both policy and practice by offering evidence-based recommendations for integrating digital tools into language instruction, especially in resource-constrained environments. Finally, the study may serve as a catalyst for further research on the role of digital resources in enhancing learning outcomes in secondary schools.

In conclusion, the integration of technology into English language education, particularly through tools like electronic dictionaries, presents a viable strategy for addressing persistent challenges in grammar instruction. However, for this potential to be fully realized, it is necessary to understand how these tools are currently used and perceived within specific educational contexts. By focusing on senior secondary schools in Nsukka Local Government Area.

Statement of the Problem

English grammar remains a persistent challenge for many senior secondary school students in Nigeria, affecting performance in school examinations and readiness for tertiary education or the workplace. While electronic dictionaries have potential to support grammar teaching by providing quick access to grammatical information, example sentences and collocations, it is not known to what extent EDs are actually used for grammar instruction in senior secondary schools in Nsukka LGA. Existing studies document (a) that EDs can support vocabulary and related language skills, (b) that digital tools in Enugu and Nsukka are often

available only to a limited extent, and (c) that teacher awareness/proficiency in technology integration can be low but none, to date, directly address how EDs are utilized specifically for teaching and learning English grammar in Nsukka senior secondary schools. This gap matters because interventions or policy decisions that aim to improve grammar outcomes need evidence about current classroom practices, teacher and student attitudes, frequency and modes of ED use, and the barriers that limit effective usage in the local context.

Put plainly: researchers and policymakers lack systematic, local evidence about (1) the degree to which EDs are available and actually used in grammar lessons, (2) teachers' competence and pedagogical strategies for leveraging ED features to teach grammar, (3) learners' dictionary skills and how these relate to grammar learning, and (4) institutional and infrastructural constraints (e.g., device access, electricity, internet, school policy) that affect utilization in Nsukka. Without that evidence, efforts to integrate EDs into English grammar instruction risk being ineffective or misdirected.

Many students in Nigerian secondary schools continue to perform poorly in English grammar, as evidenced by low scores in external examinations such as WAEC and NECO. Traditional teaching methods, which are often teacher-centered and heavily reliant on textbooks, have not yielded the desired outcomes in improving grammatical competence. With the proliferation of digital devices among youths, there exists a potential to harness electronic dictionaries as tools to enhance grammar learning. However, the extent to which these tools are integrated into classroom instruction and student learning remains unclear. This study aims to bridge this knowledge gap by investigating the utilization of electronic dictionaries in the teaching and learning of English grammar in Nsukka.

Purpose of the Study

The main purpose of this study is to investigate the utilization of electronic dictionaries in the teaching and learning of English grammar in Senior Secondary Schools in Nsukka Local Government Area. Specifically, the study seeks to:

1. The available electronic dictionaries in the teaching and learning of English grammar in Senior Secondary Schools in Nsukka Local Government Area
2. The extent teachers use electronic dictionaries in the teaching and learning of English grammar in Senior Secondary Schools in Nsukka Local Government Area

Research Questions

This study will be guided by the following research questions:

1. What are the available electronic dictionaries in the teaching and learning of English grammar in Senior Secondary Schools in Nsukka Local Government Area?
2. To what extent does teachers use electronic dictionaries in the teaching and learning of English grammar in Senior Secondary Schools in Nsukka Local Government Area?

Scope of the Study

This study has both geographical and content scope. Geographically, the study is limited to public senior secondary schools within Nsukka Local Government Area of Enugu State. Also, the study examined the available electronic dictionaries in the teaching and learning of English grammar, the extent teachers use electronic dictionaries in the teaching and learning

of English grammar, the pedagogical ways teachers integrate EDs into grammar lessons, the benefit of electronic dictionaries into grammar lessons.

Methods

This chapter presents the procedure adopted for the study. The chapter discussed the following sub-headings: Design of the Study, Area of the Study, Population of the Study, Sample and Sampling Techniques, Instrument for Data Collection, Validation of the Instrument, Reliability of the Instrument, Method of Data Collection and Method of Data Analysis.

Design of the study

This study adopted a descriptive survey research design. Descriptive survey research design is that design that collects data from a sampled population in order to describe the nature of the data in relation to the characteristic features of the population using the sample (Nworgu, 2015). Hence, descriptive survey design generalizes the responses of a sampled population to represent the responses of the entire population. This design was deemed appropriate because the study sought to investigate the current status, practices, and perceptions of both teachers and students regarding the use of electronic dictionaries in teaching and learning English grammar in senior secondary schools. The descriptive survey design allows for the collection and analysis of data from a population or a representative sample without manipulating variables. It enables the researcher to gather information on prevailing conditions, opinions, and experiences of the respondents.

Area of the Study

The study was conducted in Nsukka Local Government Area of Enugu State, Nigeria. Nsukka is one of the major educational hubs in the state, with a mix of urban, semi-urban, and rural communities. It hosts a number of government-owned and private secondary schools. The choice of Nsukka is informed by its diverse educational settings and the increasing exposure of students to mobile technology, making it a relevant area for assessing the utilization of electronic dictionaries in language instruction.

Population of the Study

The population of this study consisted of all senior secondary school students and English Language teachers in government-approved secondary schools within Nsukka Local Government Area. Based on data obtained from the Enugu State Ministry of Education (2024), According to the Post Primary Schools Management Board (PPSMB) Enugu, the Nsukka Zone comprises three Local Government Areas (LGAs): Nsukka, Igbo-Etiti, and Uzo-Uwani. The PPSMB Enugu School Directory lists a total of 49 PPSMB-managed secondary schools across these LGAs. There are approximately 25 public and private senior secondary schools in Nsukka LGA, with an estimated population of 5,800 students. This population provides a sufficient and representative base for investigating the utilization of electronic dictionaries in teaching and learning English grammar in the area.

Sample and Sampling Technique

The sample for this study comprised 300 senior secondary school students selected from 10 secondary schools in Nsukka Local Government Area. A multi-stage sampling technique was employed. First, purposive sampling was used to select schools with functional ICT facilities

or where students are known to use mobile devices for learning. Second, stratified random sampling was used to select students across SS1, SS2, and SS3 classes to ensure representation across different academic levels. Finally, simple random sampling was used to select the teacher respondents from the chosen schools.

Instrument for Data Collection

The main instrument used for data collection was a structured questionnaire titled "utilization of electronic dictionary in the teaching and learning of English grammar in senior secondary school in Nsukka local government area of Enugu state", designed by the researcher. The questionnaire had two versions one for students and one for teachers. Each version was divided into sections: Section A: Demographic data (age, class level, gender, years of teaching experience, etc.). Section B has four clusters. Cluster A is a checklist on availability of electronic dictionaries and it's made up of 6 items. Cluster B is instrument on the extent teachers use electronic dictionaries in the teaching and learning of English grammar with 6 items. Cluster C is 12 items instrument on the pedagogical ways teachers integrate EDs into grammar lessons while Cluster D is 25 items instrument on benefit of electronic dictionaries in grammar lessons. The questionnaire consisted mainly of closed-ended questions using a 4-point Likert scale (Strongly Agree, Agree, Disagree, and Strongly Disagree) and some open-ended questions to capture qualitative feedback.

Method of Data Collection

At first the researcher obtained an introduction letter form the head of department (HOD) with which data were collected from the different schools used for the study. Also, permission was obtained by the researcher from the sampled schools before the instrument were administered. The researcher was assisted by four research assistants. The research assistants were briefed on the nature of the study and how to distribute and collect the questionnaire from the respondents. The researcher visited the various schools with the assistance of the research assistants, distributed and collected the questionnaires on the spot.

Method of Data Analysis

Data collected were analyzed using frequency and percentage for research question one while research questions 2-4 were answered using mean scores and standard deviation. A benchmark of 2.50 was used as the cut-off point for decision-making on the 4-point Likert scale. Responses with mean values of 2.50 and above were considered "agreed," while those below 2.50 were "disagreed."

Results

This chapter presents the results of data analysis based on nine research questions and seven null hypotheses that guided the study. Results were presented in tables for the research questions and the hypotheses.

Research Question 1

What are the available electronic dictionaries in the teaching and learning of English grammar in Senior Secondary Schools in Nsukka Local Government Area?

Table 1: Frequency and Percentage Scores of Available electronic dictionaries in the teaching and learning of English grammar in Senior Secondary Schools in Nsukka Local Government Area.

S/N	Item Statement	Available		Not Available		Decision
		(F)	(%)	(F)	(%)	
1	Online/Web Dictionaries	55	68.8	25	31.2	Available
2	Mobile Apps	48	60.0	32	40.0	Available
3	Handheld ED Devices	29	36.3	51	63.7	Not Available
4	Offline Desktop EDs	24	30.0	56	70.0	Not Available
5	E-reader/LMS Integrated Dictionaries	14	17.5	66	82.5	Not Available
6	Bilingual/Bidirectional EDs	22	27.5	58	72.5	Not Available

Key: *=F Frequency; % = Percentage, n= Number of the Respondents = 80; Available (**A**) and Not Available (**NA**).*

The result in Table 1 showed the frequency and percentage (%) of available electronic dictionaries in the teaching and learning of English grammar in Senior Secondary Schools in Nsukka Local Government Area. The result shows that Online/Web Dictionaries was 68.8% (55) available and 31.2% (25) not available. Mobile Apps were 60% (48) available and 40% (32) not available. Handheld ED Devices was 36.3% (29) available and 63.7% (51) not available. Handheld ED Devices were 30% (24) available and 70% (56) not available. Offline Desktop Eds was 17.5% (14) available and 82.5% (66) not available. E-reader/LMS Integrated Dictionaries was 27.5% (22) available and 72.5% (58) not available and Bilingual/Bidirectional Eds was 30% (24) available and 70% (56) not available. Summarily, the result shows that a greater percentage of electronic dictionaries in the teaching and learning of English grammar in Senior Secondary Schools were not available.

Research Question 2

To what extent does teachers use electronic dictionaries in the teaching and learning of English grammar in Senior Secondary Schools in Nsukka Local Government Area?

Table 2: Mean ($\bar{X}$) and Standard Deviation (SD) Rating Scores of the extent teachers use electronic dictionaries in the teaching and learning of English grammar in Senior Secondary Schools. (n = 300)

S/N	Item Statement	Mean	SD	Dec
7	Online/Web Dictionaries	2.56	.98	HE
8	Mobile Apps	2.54	.80	HE
9	Handheld ED Devices	2.38	.85	LE
10	Offline Desktop EDs	2.42	.80	LE
11	E-reader/LMS Integrated Dictionaries	2.43	.82	LE
12	Bilingual/Bidirectional EDs	2.35	.67	LE
	Cluster Mean	**2.43**	**.18**	**LE**

Very High Extent (VHE) = 3.50-4.00, High Extent (HE) = 2.50-3.49, Low Extent (LE) =1.50-2.49 and Very Low Extent (VLE) = 0.50-1.49

In table 2, measures of central tendency and measures of dispersion were computed to summarize the data for the extent teachers use electronic dictionaries in the teaching and learning of English grammar in senior secondary schools. The result showed that mean ratings for items 7-8 were within the range of 2.50-3.49, which implies high extent while their mean ratings for items 9-12 fall within the range of 1.50-2.49, signifying low extent of. Furthermore, the cluster mean ($\bar{X}$ = 2.43, SD = 0.18) for federal university lecturers was within the range for low extent while that of the state university ($\bar{X}$ = 2.41, SD = 0.25) was within the range for low extent. This shows that the extent teachers use electronic dictionaries in the teaching and learning of English grammar in senior secondary schools is to a low extent.

Discussion of the Findings/Results

The results of the study were discussed under the subheadings below in line with the specific purpose that guided the study.

1. Greater percentage of electronic dictionary were not available in senior secondary schools in Nsukka local government area Enugu State.
2. To low extent teachers use electronic dictionaries in the teaching and learning of English grammar in senior secondary schools in Nsukka Local Government Area.

Conclusion

Based on the findings of this study, the following conclusion was drawn:

1. Greater percentage of electronic dictionary were not available in senior secondary schools in Nsukka local government area Enugu State.
2. To low extent teachers use electronic dictionaries in the teaching and learning of English grammar in senior secondary schools in Nsukka Local Government Area

The study concludes that electronic dictionaries hold strong potential for improving English grammar learning in Nigerian secondary schools. They support learner autonomy, enhance grammatical accuracy, and facilitate individualized learning. However, their full benefits are constrained by infrastructural deficits, limited teacher training, and inconsistent usage patterns. In Nsukka LGA, progress has been made in integrating digital tools, but substantial work is required to ensure equitable and effective utilization.

Recommendations

Based on the findings of the study the following recommendations are made:

1. Provision of Infrastructure: Ensure availability of internet access, mobile devices, and power supply in secondary schools.
2. Teacher Training: Organize workshops to equip teachers with skills to integrate EDs effectively.

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