RESEARCH ARTICLE

THE ROLE OF PBWORKS IN ENHANCING UNIVERSITY STUDENT'S WRITING SKILLS

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Manuscript Info	*Abstract*

English is a ubiquitous part of the educational landscape of Nigeria and represents the most crucial subject in the school curriculum. English as a second language in Nigeria has been fraught with several challenges encompassing speaking, reading, listening, and writing. Perhaps, writing skill is a complex part of English that impedes education development in many instances. The present study examined PBworks as an online tool that could enhance the writing skills of undergraduates. Ninety-four undergraduates enrolled in a public higher institution in Enugu state participated in the study. A quasi-experimental design was adopted, and the analysis indicated that PBworks significantly improved writing skills. Also, it was found that the online tool contains features capable of promoting collaborative learning among users.

Introduction:-

Nigeria is a multilingual nation that recognizes English as its official language (Mercy, 2019). The absence of a common indigenous language promoted English as a medium of intra-national and inter-national communication (Fakeye & Ogunsiji, 2009). Perhaps, English reflects the acceptable medium of teaching and learning in the country's educational landscape. More so, it functions as a ubiquitous part of everyday communication across all domains of society (Abubakar Muhammad, 2018; Adebileje & Akinola, 2020). Researchers have underscored the role of English in Nigeria's development and integration (Adegbite, 2003; Bello et al., 2016; Danladi, 2013; Mgbemena, 2014; Michina & Iskandar, 2019; Nwokoro et al., 2020; Obiegbu, 2015; Ogoanah, 2012;Yusuf, 2012; Ugal, 2012). Nigeria understands the indispensableness of English in its human and material development (Onukaogu, 2008). Thus, emphasis is geared towards developing the four basic skills, listening, reading, speaking, and writing, that characterizes English as a foreign language.

Writing is an essential component of English communication that has attracted colossal research attention in recent years. It is a skill acquired in a gradual and complex process compared to reading, listening, and speaking (Albertson & Billingsley, 2000; Olinghouse & Santangelo, 2017). Writing skills describe the knowledge and abilities related to expressing ideas through the written word, allowing learners to explore thoughts and ideas and make them evident and concrete (Harlena et al., 2019). It is an essential skill in English language acquisition (Ariyanti, 2016) and entails integrating the basic grammatical rules to form meaningful expression. Writing has been widely viewed as a crucially essential skill in teaching and learning English as a Second Language (ESL) (Bsharat & Behak, 2021). Hence it is a comprehensive skill that helps reinforce vocabulary, grammar, thinking, planning, editing, revising, and other elements. Technical knowledge about writing conventions, style guides, and formatting for different situations is essential in writing skills.

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Writing skill is considered as a complex skill for many ESL students (Graham, 2019; Graham & Alves, 2021; Kusumaningrum et al., 2019; Kusumawardhani, 2017; Kusumawati et al., 2020; Munirah, 2017; Patiño et al., 2020; Rao & Durga, 2018; Rosmarie & Mualimin, 2021; Sabti et al., 2019; Sujinah et al., 2019; Suryaman, 2019). Many components need to be integrated into performing this productive skill. However, it denotes the pathway to understanding students learning outcomes. Perhaps, students are expected to transform the idea they already had by constructing any information from their schemas. Thus, it contributes to students' academic success and future career prospects (Etim, 2019; Naghdipour, 2021).

Nigeria's education development has been fraught with numerous challenges, including communicating in writing (Aina, 2017; Akande & Oyedapo, 2018). Poor writing skills are expressed in poor writing mechanics, grammar, spelling, and sentence structure. The lack of students' vocabulary mastery, words order, and paragraph development causes low motivation to develop writing skills. The challenge of poor writing abilities at the postsecondary level is pervasive (Perin & Lauterbach, 2018) and constitutes a considerable concern in the education sector of every society. In Nigeria, ESL is a compulsory subject in the academic curriculum at all levels. Students are exposed to basic skills of English from the early learning stage, beginning from the preparatory classes to higher education. In particular, writing reflects a fundamental component of teaching and learning. Consequently, most students in the undergraduate category find it difficult to fully express their knowledge in a written form despite the long and continuous formal education. The trend is a constraint to academic development and the overall purpose of schooling. Thus, the present study examines the role of technological innovation in enhancing writing skills.

The improvement of writing skills with the help of modern computer programs has gained considerable attention in English as a Foreign Language (Parra & Calero, 2019). Among the many online educational support applications in the modern-day classroom is PBworks. The public web application, formerly known as PBwiki, offers a simple tool through a collaborative approach (Almonuf, 2018; Chu et al., 2017; Navarrete & Cabrera, 2014). PBworks allows students to collaborate as a digital platform by producing text that authorized students can edit quickly and easily. In particular, the app creates the opportunity for students to work together in small groups to share ideas, debate opinions, and propose arguments like revision and editing.

PBworks and writing skills
The underlying benefit of all these tools is that it creates a kind of social networking opportunity that engage students in a collaborative learning activity involving achieving a common goal. PBworks app, in particular, permits users to manipulate texts create and revise hypertext, usually by adding, deleting, or altering any aspect of it at any time regardless of location depending on Internet accessibility (Cress & Kimmerle, 2008). Writing skills encompass writing mechanics, grammar, spelling, and sentence structure. Relatedly, PBworks features include a guide to create a meaningful sentence correctly and develop creative writing skills in the short-term. Accordingly, several researchers have adopted the tool for pedagogical purposes across every level of education (Cheng et al., 2019; Fong et al., 2017; Giannakos & Darra, 2019; Ibrahim, 2011; Konieczny, 2012; Lau et al., 2017; Mak & Coniam, 2008; Parker & Chao, 2007). The tool is considered effective in building writing ability and construction of knowledge.

Hypothesis:
PBworks tool will enhance the writing skills of university students

Method:-
Participants
A total of 94 undergraduates enrolled in different departments in a public institution of higher learning in Enugu state participated in this research conducted in the 2020-2021 academic session. In particular, the participants included males and females in their first year of study in the institutions. All participants consented to participate in the study.

Procedure:-
Following successful authorization from the institution's management, the students were approached and asked to participate in a group project to improve their English writing skills. They were divided into groups of 2. Group A represented the study group and was subdivided into groups of 5. Thus, they were allowed to choose particular topic from any course in their curriculum, collect relevant data, and write a detailed report. The project was primarily dependent on PBworks, which allowed them to share files and information, exchange ideas and comments, and thus co-construct their writing output. Perhaps, the study groups were exposed to the step-by-step guide on using PBworks

for collaborative group writing by the research assistants. Similarly, group B received the same topics but could not use PBworks. The participants' writing skills were assessed using a questionnaire before the commencement of the project (pre-test) and after the project (post-test).

Result:-
In the pre-test study, the participants writing skills were determined. Table 1 below indicates a mean score of M = 21.12 for group A in the pre-test study and M = 21.25 for group B, respectively. In addition, standard deviation scores of 3.23 and 2.81 were obtained. This shows that no significant difference was recorded for both groups' mean scores in the pre-test study. Thus, the student's writing skills were almost equal.

Table 1:- The table shows the mean and standard deviation scores of the students' mathematics motivation and interest for both groups.

Group	N	Mean	SD
Group A	51	21.11	3.14
Group B	43	21.29	2.91

After completing the project (post-test), the participant's writing skills were measured. Table 2 below demonstrated that a mean score of M = 36.81 and M = 21.28 were recorded for both groups in the post-test study. The data shows a high mean score for the study condition (group A) (M = 36.81) compared to the control condition (group B) (M = 21.28). The standard deviation scores also revealed an increased M = 9.68 for the study condition and a lower M = 5.41 for the control condition. Therefore, it is assumed that the mean scores showed that group A's writing skills were enhanced due to the exposure to PBworks with MD = 15.53.

Table 2:- Table showing the mean and standard deviation scores of the two groups in the post-test study.

Groups	N	Mean	SD
Group A	51	36.81	9.68
Group B	43	21.29	5.41

To test the study's hypothesis, which states that PBworks would enhance the writing skills of the undergraduates. An independent-samples t-test was performed to test the two groups' differences in writing skills in the post-test study. Perhaps, writing skills were found to increase in the experimental condition (36.81 ± 9.68) compared to the control condition (21.29 ± 5.41), a statistically significant difference of MD = 15.53, t (92) = 6.316, $p < 0.05$.

Table 3:- Table showing t-test comparison of writing skills of the two groups.

Source	N	Mean	SD	df	t	Sig
Group A	51	36.81	9.68			
Group B	43	21.29	5.41	92	6.32	000

Discussion:-
The purpose of this study was to explore PBworks as an online tool that could enhance the writing skills of undergraduates in tertiary institutions in Enugu State, Nigeria. Ninety-four participants were recruited for the study. An independent t-test was performed on the data following the pre-test and post-test studies. The result indicated that PBworks increased the respondent's writing skills at MD = 15.53, t (92) = 6.316, p< 0.05. Expectedly, the result affirmed the assumption of the study that PBworks will enhance the writing skills of the respondents. The study's finding seems to be in line with previous studies that had established a positive correlation between wiki tools and writing performance (Alshumaimeri, 2011; Hsu & Lo, 2018; Li et al., 2012; Mak & Coniam, 2008; Ramanair et al., 2017). For example, Yundayani et al. (2020) found a statistically significant difference between the use of PBworks and non-PBworks media relative to writing performance. The finding entails that using the wiki for writing activities attracted students' attention to grammatical correctness and structural coherence. Thus, the study shows that learning through PBworks promoted the student's writing accuracy and quality.

In particular, the student groups who regularly reviewed their project on PBworks appeared to have mastered the underlying features of the app in that they were able to add and modify their projects and reorganize and correct others' work, thus signifying a positive collaboration. Conversely, the groups who did not work through the tool generated

poor quality results and appeared to be less collaborated in the project. These findings suggest that the PBworks could potentially support online collaborative writing. This is because users who explore the potential collaborative features achieve high-quality results. However, some students did not appreciate the benefits of this type of learning method. This needs to be addressed by practical teaching strategies.

The implication of the study
This study demonstrated that using online resources, such as PBworks, can provide a suitable pathway to enhancing students' writing skills and overall English skills. This could impact schools that promote digital learning in contemporary education society. Perhaps, the study provided valuable data that widened our knowledge about the potential strategies to enhance writing skills among students. Secondly, the current knowledge added to the ESL writing skills literature.

Conclusion:-
The present study examined PBworks as an online tool to enhance writing skills in undergraduates. Based on the analysis conducted on the data, the finding demonstrated that the online tool positively impacted the participants writing abilities. Also, it was found that the online tool poses potential features that could promote collaborative study among the learners. This study, therefore, contributes to the literature by revealing evidence that supports the pedagogical value of PBworks in undergraduates. Furthermore, the direct relationship of collaboration and effective writing occasioned by the use of the tool, as shown by this study, broadens our knowledge about how online technologies may have a place in teaching and learning. However, the sample size used in the study may pose a significant challenge for generalization. Future researchers should include more representative samples. Also, other variables could explain the observed relationship between PBworks and writing skills that are not mentioned. Future studies should explore other moderating variables to broaden our knowledge of the role of the online tool in writing skills. Nevertheless, it is recommended that teachers familiarize themselves with the available online tools to facilitate students' writing potentials. Also, policy-makers should integrate tested online tools into the educational ecosystem.

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