EFFECTS OF ONLINE COLLABORATIVE WRITING INSTRUCTION ON ENGLIS H LANGUAGE STUDENTS' WRITING PERFORMANCE, MOTIVATION, AND SEL F-EFFICACY AT FCT COLLEGE OF EDUCATION, ZUBA-ABUJA.

Okebe A. Michael
Department of English, FCT College of Education, Zuba-Abuja
Dr. Amina Idris
Department of English, FCT College of Education, Zuba-Abuja
Mercy D. James
Department of English, FCT College of Education. Zuba-Abuja
Aisha Habib
Department of English, FCT College of Education, Zuba-Abuja

Abstract
This study investigates the influence of online collaborative writing instruction on the writing p erformance, writing self-efficacy, and writing motivation of English language students of FCT College of Education, Zuba. The research has 58 participants divided into an experimental gro up (n=30) and a control group (n=28). The experimental group utilized Tencent Docs, an onlin e platform, for collaborative writing and peer-editing activities outside the classroom, while th e control group received traditional in-class instruction. The study spanned a duration of 13 we eks, during which writing tasks, writing motivation scales, and writing self-efficacy scales were employed to collect data. The findings revealed that the experimental group exhibited significa ntly greater improvement in writing performance, motivation, and self-efficacy compared to th e control group. These results indicate the positive impact of incorporating Tencent Docs into c ollaborative writing instruction. The outcomes of this study provide valuable insights for langu age educators regarding the benefits of integrating online tools into the minimum standards to e nhance writing skills. Leveraging platforms like Tencent Docs for collaborative writing, instru ctors can foster improved performance, increased motivation, and enhanced self-efficacy amon g English language students. Overall, this research highlights the effectiveness of online collab orative writing instruction and its potential as a valuable tool for language educators seeking t o optimize students' writing abilities.
Key words: collaborative writing, motivation, self-efficacy.

Introduction

Wr iting is a critical component of language proficiency and has received considerable attention fro m researchers. The increasing importance of English in the global arena has led to a growing int erest in the teaching and learning of English writing. Writing, being a complex and dynamic tas k, requires a significant amount of effort and practice to become proficient. In recent years, tech nology has revolutionized the way English is taught, and technology-assisted writing instructio n has become a critical component of writing tasks (Barrot, 2021). The increasing use of technol ogy and the Internet has had a significant impact on language education. The use of online tools and platforms, such as wikis, blogs, podcasts, and Google Docs, has gained popularity as a mean s of creating interactive and collaborative writing environments for students. These tools allow students to practice English in an engaging and dynamic setting, while also promoting active lea rning, teamwork, and the development of social skills. The notion of using technology to suppor t writing instruction via online collaborative writing is becoming increasingly appealing to educ ators, as it offers solutions to limitations in time and space in traditional learning settings (Adam u, 2024).

The online environment provides opportunities for learners to receive immediate and constructive feedback from their peers and instructors and engage in peer-editing and revision activities. This learning context also provides students with access to a range of resources, such as online dictionaries, grammar checkers, and writing samples that can help students develop their writing skills (Ebadi & Rahimi, 2017). The platform provides an easy means of uploading, sharing, and editing documents, allowing students to work together in real time and enhancing their learning experience. In this study, an investigation is made into the impact of using a word processing tool on the writing performance of NCE students of FCT College of Education, Zuba. Specifically, the paper examines the effects of Tencent Docs on the writing development of students. As a platform that offers multiple functionalities, including word processing, spreadsheets, and presentations, Tencent Docs is well-suited for language learning. In particular, the word processing component provides a rich environment for learning to write in English. This is due to the software's various tools that support learners as they work on writing assignments and develop their writing skills. For instance, Tencent Docs includes spell checkers, grammar checkers, and text-to-speech technology, which can help learners identify and correct errors in their writing as well as improve their pronunciation and intonation. Additionally, the software offers a range of formatting options, including font size, style, and color, which can help learners develop their writing style and improve the overall readability of their texts. Additionally, Tencent Docs enables learners to easily save, store, and share their documents in the cloud, allowing them to collaborate with peers and receive feedback from their teachers. This feature facilitates peer review and feedback, which can help learners refine their writing skills and gain confidence in their abilities. Furthermore, Tencent Docs offers templates and sample documents that can help learners develop their writing skills in various genres, such as academic essays, business letters, and personal narratives.

Significance of study

The results of this study are expected to contribute to the literature on online collaborative writing instruction and provide valuable insights into the use of Tencent Docs as a tool for improving the writing performance, motivation, and self-efficacy of students. The findings of this study have implications for language educators, curriculum designers, and policy makers, who are interested in incorporating technology-assisted writing instruction into the English language writing curriculum.

Research Questions

This study also seeks to answer the following research questions:

1. What is the effect of Tencent Docs on the writing performance of English language students of FCT College of Education, Zuba?
2. What is the effect of Tencent Docs on the writing motivation of English language students of FCT College of Education, Zuba?
3. How does the use of Tencent Docs impact the writing self-efficacy of students of the English language at FCT College of Education, Zuba?

Literature review: Online collaborative writing is a promising field of research in second language writing that involves learners working together to co-create a single text using computer-mediated communication technologies. With advancements in technology devices, computer-mediated collaborative writing (CMCW) has become a popular field of research for English language writing (Liu et al., 2023). CMCW allows learners to enjoy ample chances for interaction, writing independence, and time–space convenience. Numerous studies have explored the impact of CMCW on various aspects of writing, such as patterns of interaction, writing outcomes, le

arners' attitudes, types of learning tasks, and writing processes (Wang, 2015). These studies ha ve demonstrated that CMCW can improve students' writing complexity, accuracy, and fluency as well as their overall writing.

In comparison with traditional face-to-face classes, online learning has been criticized for its in adequate social interaction and its limitations in overcoming the physical distance between stud ents owing to its asynchronous and text-based nature. To address these challenges, methods suc h as synchronous online interactions, forums, and collaborative learning tasks have been propos ed. These remedial activities might consist of online peer editing using Google Docs, Facebook group interactions, online collaborative assessments, blog-mediated instruction, and virtual exc hanges (Adamu, 2024). The integration of online educational devices in classrooms has been pro ven to be an effective means of promoting collaboration. Web 2.0 offers various opportunities f or collaboration through tools including wikis, blogs, social networks, online forums, virtual ex changes, and electronic portfolios. (Abrams, 2019). The process of collaborative writing, as descr ibed by Storch (2013), involves multiple learners working together to create a shared text throug h the exchange of information, negotiation, and decision-making. The end result of collective learni ng and collaboration is a crucial aspect at every stage of the writing process, including planning, drafting, and editing. The study of computer-mediated/online collaborative writing (CMCW) h as been significantly influenced by sociocultural theory and social constructivism. In this conte xt, collaborative writing is viewed as a social activity in which students interact and support one another's learning and writing development. The sociocultural theory proposed by Vygotsky (1 978) emphasizes the role of interaction in the learning process, particularly the use of language as a mediating tool and the concept of scaffolding. In collaboration, one partner (the expert) sup ports the other partner (the novice) in their learning, and this support takes place within the Zon e of Proximal Development. The partners can switch roles, with the novice becoming the expert and vice versa, during the course of the collaboration (Wells,1999). The positive impact of com puter-mediated communication (CMC) on the design of collaborative writing tasks and the coll aboration process, as well as learners' writing quality and motivation, has been demonstrated in a number of studies. For example, the use of wikis provides learners with greater flexibility in co llaborative writing, improved learning outcomes in writing content, structure, and grammatical accuracy when using wikis for collaborative writing.

Web-based collaborative writing has a positive impact on the writing skills and competencies o f English language students. Aydın and Yıldız (2014) conducted a study on the effect of three typ es of collaborative writing tasks on intermediate-level university students using wikis in EFL lea rning classrooms. The results indicated that wiki-based collaborative writing tasks enhanced th e use of grammatical structures and were enjoyed by students. Another study by Bikowski and Vithanage (2016) investigated the impact of in-class web-based collaborative writing tasks on in dividual writing scores of L2 writers. The collaborative web-based writing group showed signif icantly greater gains in their individual writing scores and valued the collaborative writing tasks

Online collaborative writing affective factors Wri ting is significantly impacted by affective and non-cognitive factors since writing is a cognitivel y demanding activity (Piniel and Csizér, 2015). Psychological factors that are unique to L2 writi ng can considerably improve L2 learners' writing abilities by influencing their level of commit ment to creating better-quality drafts. In light of this, the current study focused on three affectiv e aspects of writing performance, writing motivation and writing self-efficacy.

The primary tenets of the overall concept of motivation in L2 education serve as the foundation for writing motivation and as a crucial component of effective learning. Motivation is a dynamic co nstruct that is influenced by both internal and external elements that are related to the learner's p articular sociocultural and contextual background (Kozaki and Ross, 2011). Motivation is impa

cted by both internal elements that are particular to each learner and external ones that are pertin ent to the learner's sociocultural context. Since writers connect with others, express themselves, and appeal to people, writing motivation is crucial. Self-efficacy is concerned with people's perc eption of their own capacity to complete a certain learning activity. In a variety of academic situ ations, self-efficacy beliefs are thought to be extremely important for boosting students' interest in learning (Bandura, 1997). Empirical research within the L2 learning area indicates that stron g self-efficacy is favorably connected with task performance and L2 skills (Woodrow, 2011). Lower writing anxiety, a better sense of oneself as a writer and a higher estimation of the import ance of writing have all been linked to writing self-efficacy. According to Han and Hiver, (201 8), writing self-efficacy is defined as L2 learners' views and confidence in their skills as L2 writ ers. To social cognitive theorists, self-efficacy is the belief and assessment that people have regar ding their capacity to perform at a given level and achieve particular objectives. Furthermore, chunk and Zimmerman (2012) found that self-efficacious writers prefer to write more regularly a nd stick with writing assignments more frequently than students who have poor self-esteem. In other words, self-efficacy beliefs are substantially connected with students' success and perfor mance on writing activities (Bandura, 1997). The literature on collaborative writing has highlig hted the importance of peer interaction in improving writing.

Population of the study

The population consisted of the entire NCE 1 students of English language in FCT College of E ducation, Zuba-Abuja, making up 150 students in the 2022/2017 academic session.

Sample and sampling technique

A total of 58 students selected using the convenience sampling method participated in this study. The participants were students of two intact classes and were assigned to two groups, with 30 pa rticipants in the experimental group and 28 participants in the control group. These participants were a mix of male and female students, and the age range was between 18 and 22 years.

Validation of the instrument The rese arch instruments were face-validated by two experts in the field of study and content-validated us ing a table of specification. A table of specifications was constructed to ensure that the items cov er all the relevant aspects of the study.

Instrumentation

A standardized writing test was administered to assess the writing performance of the participan ts. The test consisted of a prompt and a writing task that was designed to measure the participant s' ability to generate ideas, organize their thoughts, and produce a well-written piece of text. Th e pre- and post-test writing assessments each consisted of a writing prompt that required particip ants to write argumentative essays. The L2 Writing Motivation Scale (WMS) was used to measu re the level of motivation. This scale includes seven items related to L2 writing motivation. The reliability of the scale, calculated using Cronbach's Alpha, was 0.81. The Writing Self-Efficacy Scale (WSEC) was applied to assess the writing self-efficacy of the students. The scale, consisting of seven items, was intended to evaluate the confidence and beliefs of the students in their writin g skills. The reliability of the scale was determined using Cronbach's Alpha and was reported to be 0.83.

Reliability of the Instrument The t est-retest reliability approach was used to obtain data from 58 students. Simple random samplin g technique was used to draw a sample of 58 students. This set of students did not participate in the main study. Students were pretested before treatment, and after treatment, the same instrume nt was administered as a post-test.

Application

The experimental group used Tencent Docs for online collaborative writing and peer-editing tas ks outside of the classroom. Tencent Docs is a free, multi-functional office suite. This applicatio n provides features such as document collaboration, real-time co-authoring, and revision histor y, which were ideal for the needs of the experimental group. The control group did not use any o nline writing tool, and their writing instruction was limited to in-class activities and homework assignments.

Administration of the instrument

The writing program, which was conducted over a duration of 13 weeks, involved both the exper imental and control groups receiving in-class instruction. The course was structured according t o the principles of the process approach and was taught by a single teacher who employed the sa me materials and curriculum for both groups. L2 Writing Motivation Scale (WMS) and Writing Self-Efficacy Scale (WSEC) tested motivation and self-efficacy.

Data analysis

To assess the effect of online collaborative writing instruction on writing performance, writing motivation, and writing self-efficacy, three ANCOVAs were conducted. The first ANCOVA w as conducted to compare the writing performance scores between the experimental group and th e control group. The second ANCOVA was conducted to compare the writing motivation score s between the two groups. The third ANCOVA was conducted to compare the writing self-effic acy scores between the two groups. The results of the ANCOVAs were reported using means, st andard deviations, and effect sizes, and the level of significance was set at $p < 0.05$, Also, the w riting scoring rubric was used to assess the writing performance of the participants in both the p re-test and post-test. The Cohen's Kappa inter-rater reliability test indicated a high degree of co nsistency in the scoring process, with a reliability index of 0.84.

Results The resear chers used ANCOVA to compare the effects of two types of EFL writing instruction (online col laborative course and traditional) on the writing performance, as well as its sub-scales, writing motivation, and writing self-efficacy.

Descriptive statistics of writing skills, holistic writing, writing motivation, and writing self-effi cacy for both groups.

This section shows the descriptive statistics of writing subscales, holistic writing, writing motiv ation, and writing self-efficacy for both experimental and control groups. For content, the pre-te st mean score for the experimental group (M = 13.01, SD = 2.31) was slightly higher than the con trol group (M = 12.75, SD = 1.97). However, for the content post-test, the mean score for the exp erimental group (M = 17.19, SD = 3.34) was higher than the control group (M = 14.17, SD = 2.5 7). In terms of organization, the mean score for the experimental group on the pre-test (M = 11.52 SD = 1.52) was slightly higher than the control group (M = 11.20, SD = 1.49). For organization post-test, the mean score for the experimental group (M = 15.60, SD = 2.77) was substantially higher than the control group (M = 13.57, SD = 2.80). Concerning language use, the pre-test me an score for the experimental group (M = 13.25, SD = 1.75) was slightly higher than the control g roup (M = 12.88, SD = 1.72). However, for the language post-test, the mean score for the experi mental group (M = 16.81, SD = 2.33) was significantly greater than the control group (M = 14.5 4, SD = 1.98). Regarding vocabulary, the mean score for the experimental group on the pre-test (M = 7.98, SD = 2.22) was not much higher than the control group 1 (M = 7.41, SD = 2.54). For the vocabulary post-test, the mean score for the ex perimental group (M = 10.18, SD = 2.71) was significantly higher than the control group (M = 8

34, SD = 2.69). For mechanics, the mean score for the experimental group on the pre-test (M = 5.28, SD = 1.40) was similar to the control group 1 (M = 5.65, SD = 1.50). Nonetheless, for the mechanics post-test, the mean score for the experimental group (M = 7.05, SD = 1.78) was greater than the control group (M = 5.99, SD = 1.89). As for holistic writing, the mean score for the experimental group on the post-test (M = 69.90, SD = 10.20) was significantly higher than the control group (M = 63.92, SD = 12.16).

Also, the mean scores for the writing motivation pre-test were 18.46 (SD = 4.41) and 19.75 (SD = 2.82) for the experimental and control groups, respectively. For the writing motivation post-test, the mean scores were 24.28 (SD = 4.26) for the experimental group and 21.39 (SD = 2.76) for the control group. The mean scores for the writing self-efficacy pre-test were 19.98 (SD = 4.56) and 20.85 (SD = 3.24) for the experimental and control groups, respectively. Finally, the mean scores for the writing self-efficacy post-test were 28.88 (SD = 7.72) for the experimental group and 23.08 (SD = 3.90) for the control group. In ANCOVA analysis, the results were adjusted for pre-existing differences between the groups by considering the scores on the pre-test as a covariate. The independent variable in the analysis was the type of intervention (online collaborative or traditional), while the dependent variable consisted of scores on holistic writing performance, as well as its subtests, motivation, and self-efficacy obtained after the completion of the treatment. Prior to conducting the ANCOVAs, various validity tests were performed to verify that the data met the conditions of normal distribution, linearity, equal variances, equal regression slopes, and accurate measurement of the covariate.

The results of the analysis of the effect of the online collaborative writing course on students' L2 writing performance showed that the writing performance of the experimental group improved significantly more than that of the control group. The writing performance mean score of the experimental group increased from 54.48 on the pre-test to 69.90 on the post-test, while the pre-test mean score of the control group increased from 56.21 to 63.92 on the post-test. However, after controlling for pre-test scores, the difference between the two groups was found to be statistically significant [$F(1, 55) = 10.44$, $p = 0.002$, partial eta squared = 0.16]. This suggests that the online collaborative writing course was effective in enhancing the students' holistic writing performance.

The results of ANCOVA on holistic writing performance.

To examine the effect of the online collaborative writing on the writing sub-scales, a series of ANCOVAs were performed. The results show that there is a significant effect of group on the content component of writing, $F(1, 55) = 46.521$, $p < 0.001$, partial eta squared = 0.458, providing evidence that online collaborative writing instruction has a positive effect on enhancing the content component of writing.

Results of ANCOVA for writing content.

The main effect of Group was also significant, $F(1, 55) = 9.086$, $p = 0.004$, partial eta squared = 0.458 = 0.142, indicating that there was a significant difference between the experimental and control groups in writing organization, with the experimental group outperforming the control group.

Results of ANCOVA for writing organization.

The results of the ANCOVA to examine the effect of online collaborative writing instruction on writing language use, with language use pretest scores as a covariate. The main effect of group was also significant, $F(1, 55) = 65.549$, $p < 0.001$, partial $\eta^2 = 0.544$, suggesting that the experimental group outperformed the control group in writing language use. The effect size was moderate. The interaction effect between language use pre-test scores and group was not significant,

(1, 55) = 0.072, $p = 0.790$, partial $\eta^2 = 0.001$, indicating that the effect of the online collaborative writing instruction on writing language use was not influenced by the initial language use ability of the participants.

Results of ANCOVA for writing language use.

A significant main effect of vocabulary was observed, $F(1, 55) = 762.696$, $p < 0.001$, partial $\eta^2 = 0.933$. Also, a significant main effect of group was observed, $F(1, 55) = 42.035$, $p < 0.001$, partial $\eta^2 = 0.433$. The Type III Sum of Squares for vocabulary1 was 382.436, indicating that the variation in writing vocabulary scores could be attributed to the independent variable. The error term was 27.578.

Results of ANCOVA for writing vocabulary.

A one-way ANCOVA was performed to determine the effect of the writing intervention program on writing mechanics. The main effect of Mechanics1 was statistically significant, $F(1, 55) = 496.886$, $p < 0.001$, with a large effect size, partial eta squared = 0.900. This indicates that the writing intervention program had a significant effect on the participants' writing mechanics scores Additionally, the main effect of Group was also statistically significant, $F(1, 55) = 94.776$, $p < 0.001$, with a moderate effect size, partial eta squared = 0.633, suggesting that there were significant differences in writing mechanics scores between the two groups. The interaction between Mechanics1 and Group was not statistically significant, $F(1, 55) = 1.426$, $p = 0.237$, indicating that the effect of the writing intervention program did not differ significantly between the two groups in terms of writing mechanics.

Results of ANCOVA for writing mechanics.

Based on the data analysis, which included descriptive statistics and ANCOVA, the results of this study suggest that the online collaborative writing instruction significantly contributed to enhancing the holistic writing. Therefore, it can be concluded that the intervention had a positive impact on various writing components and can be considered as an effective approach to enhance students' writing performance. Concerning the effect of online collaborative writing instruction on English language students' writing motivation, the statistics revealed that the pre-test mean score for the experimental group was 18.46 and increased to 24.28 on the post-test, while the pre-test mean score for the control group was 19.75 and increased to 21.39 on the post-test. After taking into consideration the pre-test scores of writing motivation, a significant difference was found between the two groups on post-test scores [$F(1, 55) = 12.88$, $p = 0.001$, partial eta squared = 0.19]. This result implies that the experimental group's writing motivation improved more significantly than the control groups, implying the effectiveness of the online collaborative writing course in promoting writing motivation among students.

The results of ANCOVA on writing motivation.

The writing self-efficacy score for the control group increased from a pre-test mean score of 20.58 to a post-test mean score of 23.08. Meanwhile, the writing self-efficacy score for the experimental group rose from a pre-test mean of 19.98 to a post-test mean of 28.88. Further analysis through ANCOVA, taking into consideration the pre-test scores of writing self-efficacy, showed a statistically significant difference in the post-test scores of writing self-efficacy between the two groups, with $F(1, 55) = 17.36$, $p = 0.000$, and partial eta squared = 0.24. This result implies that the online collaborative writing course had a positive impact on the writing self-efficacy of the students.

Discussion/Conclusion The study sought to examine the effect of online collaborative writing using Tencent Docs on the wri

ting performance, writing motivation, and writing efficacy of English language students of FCT College of Education, Zuba-Abuja. The results of the data analysis for this quasi-experimental design indicated that online collaborative writing instruction improved L2 writing performance of English language students. Having utilized a pre-test and post-test design with an experimental group and a control group, the researchers found that the use of Tencent Docs significantly improved the writing performance, writing self-efficacy, and writing motivation of the participants in the experimental group. These findings can contribute to the development of new teaching practices and technology-enhanced language learning programs and can help to improve the writing skills of FCT College of Education Zuba-Abuja students. By incorporating Tencent Docs into writing instruction, language teachers can provide students with a user-friendly and engaging tool that can enhance their writing performance, self-efficacy, and motivation.

References

Abrams, Z. I. (2019). Collaborative writing and text quality in Google Docs. *Lang. Learn. Technol.* 23, 22–42

Adamu, A.U. (2024). *Teacher education in Nigeria, envisioning the future.* Pre-convocation lecture delivered at FCT College of Education, Zuba-Abuja, on November 21st, 2024

Bandura, A. (1997). *Self-efficacy: The exercise of control*. United States: Macmillan

Barrot, J. S. (2021). Using automated written corrective feedback in the writing classrooms: effects on L2 writing accuracy. *Comput. Assist. Lang. Learn.* 36, 584–607. doi: 10.1080/09588221.2021.1936071

Brooks, L., and Swain, M. (2009). "Languaging in collaborative writing: creation of and response to expertise" in *Multiple perspectives on interaction*. eds. A. Mackey and C. Polio (New York, NY: Routledge), 64–95.

Dinh, L. P., and Nguyen, T. T. (2020). Pandemic, social distancing, and social work education: students' satisfaction with online education in Vietnam. *Soc. Work. Educ.* 39, 1074–1083. doi: 10.1080/02615479.2020.1823365

Dörnyei, Z. (2001). *Motivational strategies in the language classroom* (Vol. 10). Cambridge: Cambridge University Press.

Ellis, R. (2021). The effects of pre-task planning on second language writing: a systematic review of experimental studies. *Chin J Appl Linguist* 44, 131–165. doi: 10.1515/CJAL-2021-0009

Han, J., and Hiver, P. (2018). Genre-based L2 writing instruction and writing-specific psychological factors: the dynamics of change. *J. Second. Lang. Writ.* 40, 44–59. doi: 10.1016/j.jslw.2018.03.001

Storch, N. (2011). Collaborative writing in L2 contexts: processes, outcomes, and future directions. *Annu. Rev. Appl. Linguist.* 31, 275–288. doi: 10.1017/S0267190511000079

Vygotsky, L. (1978). Interaction between learning and development. *Read. Dev. Child.* 23, 34–41.Wells, G. (1999). Using L1 to master L2: a response to Antón and DiCamilla's 'socio- cognitive functions of L1 collaborative interaction in the L2 classroom. *Mod. Lang. J.* 83, 248–254. doi: 10.1111/0026-7902.00019