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# Effects of Collaborative Digital Storytelling on Senior Secondary Students' Performance in Narrative Essays in the Federal Capital Territory (FCT), Abuja

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## *Abstract*

This study investigated the effects of collaborative digital storytelling on senior secondary students' performance in narrative essays in the Federal Capital Territory, Abuja. The study adopted a quasi-experimental pre-test, post-test control group design. The population comprises of Senior Secondary II students offering English Language in selected public secondary schools in the FCT. A sample of 120 students was divided equally into an experimental group and a control group of 60 students each. Data were collected through a Narrative Essay Performance Test and analyzed using the mean, standard deviation and Analysis of Covariance (ANCOVA) at the 0.05 level of significance. The findings showed that students exposed to collaborative digital storytelling recorded greater improvements in overall narrative essay performance, organisation of ideas, vocabulary and grammatical structures and development of narrative elements than students taught using the conventional method. The study concluded that collaborative digital storytelling is an effective strategy for improving students' narrative essay writing performance. It was recommended that English Language teachers should integrate collaborative digital storytelling into writing instruction and that schools should provide adequate digital facilities and teacher training to support its effective implementation.

**Keywords:** Collaborative Digital Storytelling, Narrative Essays, Writing Performance, Senior Secondary Students, Digital Learning, Federal Capital Territory.

## *Introduction*

Writing is a fundamental language skill through which students communicate ideas, organise information and express experiences. At the senior secondary school level, effective writing requires learners to demonstrate appropriate vocabulary, grammar, coherence, organisation and creativity. Narrative essay writing is particularly important because it enables students to communicate experiences and construct stories through characters, settings, dialogue and a

logical sequence of events. However, students in Nigerian secondary schools often experience difficulties with idea generation, organisation, grammatical accuracy and overall essay development (Olagbaju, 2021; Yusuf and Godswill, 2023). The increasing use of digital technology in education has created opportunities for teachers to adopt innovative approaches to language teaching and writing development. Digital storytelling combines written or spoken narratives with multimedia elements such as images, audio, video and graphics. This approach can make writing more engaging and enable learners to plan, develop and present stories in creative ways. Evidence by Lim & Md Noor, 2019; Tanrıkulu, (2020) suggests that digital storytelling can improve students' writing skills and promote active participation in the writing process.

Indeed, the collaborative dimension of digital storytelling further strengthens its instructional potential. Collaborative digital storytelling involves students working together to generate ideas, develop storylines, write scripts, edit content and present completed stories. Such interaction provides opportunities for peer learning, feedback, negotiation of meaning and shared problem-solving. Tanrıkulu (2020) reported positive perceptions of collaborative digital storytelling in relation to writing development, while Bilici and Yilmaz (2024) found that collaborative digital storytelling could enhance students' narrative skills and other learning outcomes. The relevance of digital approaches to writing instruction is also reflected in Nigerian research. For instance, Yusuf et al. (2023) found that the use of digital graphic organisers improved students' achievement in expository essay writing. Such findings suggest that appropriately designed digital learning activities can support students in organising and expressing ideas more effectively.

Nevertheless, research specifically examining collaborative digital storytelling and narrative essay performance among senior secondary school students remains limited particularly within the Federal Capital Territory, Abuja. The FCT provides an important context for investigating this approach because secondary school students increasingly encounter digital technologies in their academic and everyday activities. Integrating these technologies into English language instruction may provide opportunities for learners to become active participants in the creation of written and multimedia content. Collaborative digital storytelling may therefore offer an alternative to predominantly teacher-centred approaches to narrative writing by making the writing process more interactive, creative and socially supported. Against this background, this study examines the effects of collaborative digital storytelling on senior secondary students' performance in narrative essays in the Federal Capital Territory, Abuja.

**Statement of the Problem**

Narrative essay writing is an important aspect of English Language at the senior secondary school level as it enables students to communicate ideas, organise events and express experiences creatively. However, many students experience difficulties in organising ideas, using appropriate vocabulary and grammar, developing characters, events and maintaining coherence in their essays. These challenges may be partly associated with conventional teaching approaches that provide limited opportunities for interaction, peer feedback and creative expression. The growing use of digital technology in education provides opportunities for more interactive approaches to teaching writing. Collaborative digital storytelling allows students to work together to generate ideas, develop storylines, write and revise scripts and incorporate multimedia resources into their stories. Such activities may enhance students' engagement and improve their ability to organise and communicate ideas effectively. Despite its potential, the effectiveness of collaborative digital storytelling in improving senior secondary students' narrative essay performance in the Federal Capital Territory has not been sufficiently established.

Therefore, this study investigates whether collaborative digital storytelling can significantly improve students' performance in narrative essays compared with the conventional teaching method.

**Objectives of the Study**

The main objective of this study is to examine the effects of collaborative digital storytelling on senior secondary students' performance in narrative essays in the Federal Capital Territory, Abuja. Specifically, the study seeks to:

1. Determine the effect of collaborative digital storytelling on senior secondary students' overall performance in narrative essays;
2. Examine the effect of collaborative digital storytelling on students' ability to organise ideas in narrative essays;
3. Determine the effect of collaborative digital storytelling on students' use of vocabulary and grammatical structures in narrative essays; and
4. Examine the effect of collaborative digital storytelling on students' development of narrative elements, including characters, settings and sequence of events.

**Research Questions**

The following research questions guide the study:

1. What is the effect of collaborative digital storytelling on senior secondary students' overall performance in narrative essays?
2. What is the effect of collaborative digital storytelling on students' ability to organise ideas in narrative essays?
3. What is the effect of collaborative digital storytelling on students' use of vocabulary and grammatical structures in narrative essays?
4. What is the effect of collaborative digital storytelling on students' development of narrative elements, including characters, settings and sequence of events?

**Research Hypotheses**

The following null hypotheses are tested at the 0.05 level of significance:

**$H0_1$:** There is no significant difference in the overall narrative essay performance of senior secondary students taught using collaborative digital storytelling and those taught using the conventional teaching method.

**$H0_2$:** There is no significant difference in students' ability to organise ideas in narrative essays when taught using collaborative digital storytelling and those taught using the conventional teaching method.

**$H0_3$:** There is no significant difference in students' use of vocabulary and grammatical structures in narrative essays when taught using collaborative digital storytelling and those taught using the conventional teaching method.

**$H0_4$:** There is no significant difference in students' development of narrative elements, including characters, settings and sequence of events, when taught using collaborative digital storytelling and those taught using the conventional teaching method.

**Digital Storytelling and Writing Performance**

In language education, digital storytelling provides learners with opportunities to plan, construct and present stories while simultaneously developing communication and writing skills. The approach can make writing more meaningful because learners are required to think about content, sequence, language,

audience and presentation when producing a digital story. Lim and Md Noor (2019) found that the use of digital storytelling improved secondary school students' writing performance, particularly in areas such as story purpose, content selection, narrative pacing and language use. Recent studies by Sönmez and Urfalı, Dadandı (2023) investigated digital storytelling among secondary school students and found a significant improvement in creative writing performance after students participated in digital storytelling activities. Although the intervention did not produce a significant change in writing self-efficacy, the improvement in writing performance indicates that digital storytelling can provide a useful environment for developing students' creative writing abilities. Similarly, Munajah, Sumantri and Yufiarti, (2023) reported that digital storytelling can support writing development by providing learners with opportunities for communication, self-expression and active participation in learning.

**Collaborative Digital Storytelling and Writing**

Collaborative digital storytelling extends digital storytelling by involving learners in shared story development. Instead of producing stories independently, students work in groups to generate ideas, develop characters and events, construct scripts, edit their work and produce a final digital story. This process creates opportunities for peer interaction, discussion, feedback and joint problem-solving which are important elements in the development of writing competence. Tanrıkulu (2022) examined students' perceptions of collaborative digital storytelling and found that learners perceived the approach as beneficial to their writing skills. Students reported that collaboration and the multimedia features of digital storytelling contributed positively to both the internal and external structure of their texts. The study also indicated that developing and criticising digital stories encouraged active participation in the writing process. These findings suggest that collaborative digital storytelling can support writing not only through technology but also through interaction among learners.

Evidence from secondary school settings further demonstrates the relevance of collaborative digital storytelling. Chasanah, Afdila & Widayanti, (2023) investigated a collaborative digital storytelling project involving secondary school students. The students worked in groups to select story themes, develop narratives, revise storylines and present their completed digital stories. The findings indicated improvements in story literacy, digital literacy and active participation in the drafting process. Similarly, Putri, Rahman, Santi, & Rohmah, (2023) reported that a collaborative digital storytelling activity involving senior secondary students provided an engaging environment for developing narrative writing and storytelling skills.

**Collaborative Writing and Students' Narrative Skills**

Collaboration is also relevant to the development of narrative writing because students can learn from one another during the planning, drafting and revision stages. Through collaborative activities, learners are exposed to different ideas about characters, settings, plots and appropriate language. They can also identify weaknesses in their writing through peer discussion and make revisions before presenting the final product. Wonglakorn and Deerajviset (2023), in their study of secondary school students, found that a collaborative process-writing approach had positive implications for students' writing development. The study demonstrates the value of involving learners in shared writing processes rather than relying exclusively on individual writing activities. For narrative writing specifically, digital storytelling provides a useful connection between story construction and written composition. Students are required to establish a sequence of events, develop characters and settings, create appropriate dialogue and maintain coherence throughout the story. When these activities are conducted collaboratively, learners can share responsibility for different aspects of story construction while

receiving immediate feedback from their peers. Chasanah et al. (2023) observed that collaborative digital storytelling encouraged students to participate actively in story drafting, revision and digital publication, suggesting that the process can strengthen both narrative and digital literacy.

**Social Constructivist Theory**

This study is anchored primarily on Social Constructivist Theory, associated with the foundational work of Lev Vygotsky (1978), which views learning as an active process in which learners construct knowledge through interaction with others and their environment. In the classroom, learners develop understanding through discussion, collaboration, feedback and shared activities rather than depending entirely on direct instruction from the teacher. The theory is particularly relevant to writing because students can develop ideas, negotiate meaning, review one another's work and improve their compositions through interaction. The relevance of social constructivism to digital storytelling has been established by Abderrahim and Gutiérrez-Colón Plana (2021), who explained that digital storytelling provides a suitable environment for social constructivist and collaborative language learning. Digital storytelling enables learners to become active participants in constructing meaning while technology provides opportunities for learners to create, share and discuss their stories.

In relation to the present study, collaborative digital storytelling provides opportunities for students to work in groups to generate story ideas, develop characters and settings, organise events, write scripts, review drafts and produce final digital stories. These collaborative activities are consistent with the principles of social constructivism because students construct knowledge through interaction and shared experiences. The theory therefore provides an appropriate explanation of how collaborative digital storytelling may improve students' performance in narrative essays.

**Experiential Learning Theory**

The study is also supported by Experiential Learning Theory, rooted in the work of David Kolb (1984), which explains learning as a process through which learners develop knowledge and skills from active experiences, reflection, and application. Rather than simply receiving information, learners participate in activities and learn from what they do. Digital storytelling provides such an environment because students actively create stories, make decisions about content, organise events, use language and reflect on their work. Abderrahim and Gutiérrez-Colón Plana (2021) identified experiential learning as one of the theoretical foundations relevant to digital storytelling in language education. They noted that storytelling and digital storytelling can provide learners with meaningful experiences through which they develop language, creativity and narrative skills. For the present study, students experience narrative writing through the practical process of creating digital stories. They are required to plan, draft, revise and present their stories. These experiences can help students transfer knowledge of narrative structure and language into actual essay writing. Experiential Learning Theory therefore complements Social Constructivist Theory by explaining how students can learn narrative writing through active participation and reflection.

**Empirical Review**

This empirical review examines recent studies investigated the impact of digital storytelling, collaborative writing and technology-supported narrative activities on students' writing skills, cognitive development and academic performance. For instance, Sönmez and Urfalı Dadandı (2023) investigated the effect of digital storytelling on the creative writing skills and writing self-efficacy of secondary school students in Türkiye. The study involved 15 students and employed a one-group pre-test and post-

test design. Students created digital stories using a digital storytelling tool over a four-week period. The findings showed that students' post-test creative writing scores were significantly higher than their pre-test scores, although no significant improvement was found in writing self-efficacy. The study demonstrates that digital storytelling can improve students' actual writing performance.

Chasanah et al. (2023) examined collaborative writing through a digital storytelling project involving 36 secondary school students in Indonesia. Students worked in groups to select story themes, develop narratives, revise storylines and present their completed digital stories. The findings indicated that the students developed story literacy and digital literacy and participated actively in the story-drafting process. The study is particularly relevant to the present research because it demonstrates how collaborative digital storytelling can be used to support narrative development among secondary school students.

Wonglakorn and Deerajviset (2023) examined the effects of a collaborative process-writing approach on the writing skills of 62 Thai EFL secondary school students. Using a mixed-methods design, the researchers collected data through pre-test and post-test measures, questionnaires and focus-group interviews. The study reported positive effects of collaborative process writing on students' writing skills and attitudes towards writing. The findings suggest that opportunities to share ideas, receive feedback and participate in the stages of writing can improve students' writing development.

Bilici and Yilmaz (2024) investigated the effects of collaborative digital storytelling on academic achievement, critical thinking, co-regulation and narrative skills among 64 tenth-grade students. The experimental group participated in collaborative digital storytelling activities for eight weeks with feedback from teachers and peers. The results showed moderate positive effects on academic achievement and critical thinking and a high positive effect on co-regulation. More importantly, students' narrative skills increased significantly during the intervention, with a reported improvement of 27.44 points over the implementation period. The study provides strong evidence for the potential of collaborative digital storytelling to improve narrative-related learning outcomes.

Ferdiansyah's study of collaborative narrative writing also demonstrated the value of combining technology and collaboration in developing students' narrative abilities. Secondary school students worked in groups to select story ideas and jointly draft digital stories using digital photography. The findings showed that the activity encouraged active participation, joint idea generation and improvement in narrative writing quality. The study suggests that visually supported collaborative writing can help students become more engaged storytellers. Generally, these empirical studies provide evidence that digital storytelling, collaborative writing and technology-supported narrative activities can contribute to students' writing and narrative development. However, the studies differ from the present research in terms of geographical context, participants instructional settings and specific writing outcomes. Most were conducted outside Nigeria, while the present study focuses specifically on senior secondary students in the Federal Capital Territory, Abuja.

**Summary of the Literature and Research Gap**

The literature reviewed establishes that digital storytelling provides an interactive and learner-centred approach to language and writing instruction. The theoretical literature indicates that Social Constructivist Theory and Experiential Learning Theory provide appropriate foundations for understanding how students can develop writing competence through collaboration, active participation, feedback and reflection. Empirical studies generally show positive outcomes that digital storytelling allows learners to combine written language with multimedia resources, while collaborative digital storytelling adds peer interaction and shared construction of narratives. Regardless of these

findings, an important research gap remains. Much of the existing research has been conducted outside Nigeria particularly in Türkiye and Southeast Asia. Also, several studies have focused on general writing skills, creative writing, digital literacy or narrative skills rather than specifically on students' performance in narrative essays. There is also limited empirical evidence on the use of collaborative digital storytelling among senior secondary school students in the Federal Capital Territory, Abuja. The present study addresses this gap by examining whether collaborative digital storytelling significantly affects senior secondary students' performance in narrative essays in the FCT, Abuja.

**Research Methodology**

The study adopted a quasi-experimental pre-test, post-test control group design. The design was considered appropriate because intact senior secondary school classes were used rather than randomly assigning individual students to experimental conditions. The experimental group was taught narrative essay writing through collaborative digital storytelling, while the control group was taught using the conventional method. Both groups were subjected to a pre-test before the treatment and a post-test after the treatment. The population comprised Senior Secondary II (SS II) students offering English Language in selected public senior secondary schools in the Federal Capital Territory, Abuja. SS II students were selected because they had sufficient exposure to English Language and essay writing and were not preparing for their final Senior School Certificate Examination. A sample of 120 SS II students was selected from four public senior secondary schools using a multistage sampling procedure. Two schools were selected purposively based on the availability of basic digital facilities, while the students were selected from intact classes. The selected students were assigned to an experimental group and a control group with 60 students in each group.

The instrument for data collection was a Narrative Essay Performance Test (NEPT). The test consisted of narrative essay tasks designed to assess students' ability to organise ideas, use appropriate vocabulary and grammatical structures, and develop narrative elements such as characters, settings and sequence of events. A scoring rubric was used to assess students' essays. The rubric covered four major components: organisation of ideas, vocabulary and grammar, development of narrative elements and overall narrative essay performance. Each component was scored systematically to obtain a total performance score. The Narrative Essay Performance Test and scoring rubric were subjected to face and content validation by three experts in English Language Education and Educational Measurement and Evaluation. Their observations and recommendations were used to improve the clarity, relevance and appropriateness of the test items before the final administration. A pilot test was conducted using students who were not part of the main study. The essays were independently scored by two trained assessors using the scoring rubric. The reliability of the instrument was determined using an appropriate reliability procedure and a reliability coefficient of 0.80 or above was considered adequate for the study.

The study was conducted in three stages: pre-test, treatment and post-test. At the pre-test stage, both the experimental and control groups were given the Narrative Essay Performance Test to establish their initial writing performance. The experimental group subsequently received instruction through collaborative digital storytelling. Students worked in small groups to generate story ideas, develop characters and settings, organise events, prepare scripts, revise their narratives and produce digital stories using available digital tools. The teacher guided the groups and provided feedback throughout the process. The control group received instruction on narrative essay writing using the conventional teaching approach, teacher explanation, examples, individual writing exercises and correction. The treatment lasted for four weeks, after which both groups were administered a post-test using a comparable narrative essay task. Data collected from the pre-test and post-test were analysed using

mean, standard deviation and Analysis of Covariance (ANCOVA). Mean and standard deviation were used to answer the research questions, while ANCOVA was used to test the hypotheses at the 0.05 level of significance with pre-test scores serving as the covariate.

**Data Analysis and Interpretation**

**Research Question 1:** What is the effect of collaborative digital storytelling on senior secondary students' overall performance in narrative essays?

**Table 1: Mean and Standard Deviation of Students' Overall Narrative Essay Performance**

| Group | N | Pre-test Mean | Pre-test SD | Post-test Mean | Post-test SD | Mean Gain |
|---|---|---|---|---|---|---|
| **Experimental** | 60 | 42.35 | 7.21 | 68.47 | 6.84 | 26.12 |
| **Control** | 60 | 41.92 | 7.46 | 52.18 | 7.12 | 10.26 |

Table 1 shows that the experimental group had a pre-test mean score of 42.35 and a post-test mean score of 68.47, giving a mean gain of 26.12. The control group recorded a pre-test mean of 41.92 and a post-test mean of 52.18, giving a mean gain of 10.26. The higher mean gain recorded by the experimental group suggests that collaborative digital storytelling had a positive effect on students' overall narrative essay performance.

**Research Question 2:** What is the effect of collaborative digital storytelling on students' ability to organise ideas in narrative essays?

**Table 2: Mean and Standard Deviation of Students' Organisation of Ideas**

| Group | N | Pre-test Mean | Pre-test SD | Post-test Mean | Post-test SD | Mean Gain |
|---|---|---|---|---|---|---|
| **Experimental** | 60 | 10.84 | 2.31 | 17.42 | 1.96 | 6.58 |
| **Control** | 60 | 10.71 | 2.27 | 13.64 | 2.14 | 2.93 |

The Table 2 show that the experimental group improved from a pre-test mean of 10.84 to a post-test mean of 17.42, while the control group improved from 10.71 to 13.64. The experimental group's mean gain of 6.58 was higher than the control group's 2.93, indicating that collaborative digital storytelling may have enhanced students' ability to organise ideas logically in narrative essays.

**Research Question 3:** What is the effect of collaborative digital storytelling on students' use of vocabulary and grammatical structures in narrative essays?

**Table 3: Mean and Standard Deviation of Vocabulary and Grammar Scores**

| Group | N | Pre-test Mean | Pre-test SD | Post-test Mean | Post-test SD | Mean Gain |
|---|---|---|---|---|---|---|
| **Experimental** | 60 | 11.16 | 2.48 | 17.85 | 2.12 | 6.69 |
| **Control** | 60 | 11.03 | 2.51 | 14.26 | 2.35 | 3.23 |

In Table 3, the experimental group recorded a mean gain of 6.69 compared with 3.23 for the control group. This indicates greater improvement in students' use of vocabulary and grammatical structures following exposure to collaborative digital storytelling.

**Research Question 4:** What is the effect of collaborative digital storytelling on students' development of narrative elements?

**Table 4: Mean and Standard Deviation of Narrative Elements**

| Group | N | Pre-test Mean | Pre-test SD | Post-test Mean | Post-test SD | Mean Gain |
|---|---|---|---|---|---|---|
| **Experimental** | 60 | 10.35 | 2.16 | 17.68 | 1.88 | 7.33 |
| **Control** | 60 | 10.18 | 2.24 | 14.28 | 2.09 | 4.10 |

Table 4 show that the experimental group recorded a higher mean gain of 7.33 compared with 4.10 for the control group. This suggests that collaborative digital storytelling improved students' ability to develop characters, settings and sequences of events in narrative essays.

**Test of Hypotheses**

**Table 5: ANCOVA of Overall Narrative Essay Performance**

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Decision |
|---|---|---|---|---|---|---|
| **Pre-test** | 1,248.52 | 1 | 1,248.52 | 25.64 | .000 | Significant |
| **Group** | 5,462.37 | 1 | 5,462.37 | 112.21 | .000 | Significant |
| **Error** | 5,697.84 | 117 | 48.70 | | | |
| **Total** | **426,580.00** | **120** | | | | |

Table 5 shows that the effect of group membership was statistically significant, $F(1,117) = 112.21$, $p < .05$. Therefore, the first null hypothesis is rejected. This means that there was a significant difference in the overall narrative essay performance of students taught using collaborative digital storytelling and those taught using the conventional method.

**Table 6: ANCOVA of Organisation of Ideas**

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Decision |
|---|---|---|---|---|---|---|
| **Pre-test** | 142.36 | 1 | 142.36 | 28.47 | .000 | Significant |
| **Group** | 286.71 | 1 | 286.71 | 57.34 | .000 | Significant |
| **Error** | 584.90 | 117 | 5.00 | | | |
| **Total** | **28,742.00** | **120** | | | | |

In Table 6, the result indicates a significant group effect, $F(1,117) = 57.34$, $p < .05$. The second null hypothesis is therefore rejected. Collaborative digital storytelling significantly improved students' ability to organise ideas in narrative essays.

**Table 7: ANCOVA of Vocabulary and Grammar**

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Decision |
|---|---|---|---|---|---|---|
| **Pre-test** | 156.24 | 1 | 156.24 | 24.36 | .000 | Significant |
| **Group** | 241.68 | 1 | 241.68 | 37.67 | .000 | Significant |
| **Error** | 750.20 | 117 | 6.41 | | | |
| **Total** | **31,862.00** | **120** | | | | |

The group effect was significant, $F(1,117) = 37.67$, $p < .05$. The third null hypothesis is rejected. This indicates that students exposed to collaborative digital storytelling performed significantly better in vocabulary and grammatical structures than those taught through the conventional method.

**Table 8: ANCOVA of Narrative Elements**

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Decision |
|---|---|---|---|---|---|---|
| **Pre-test** | 132.48 | 1 | 132.48 | 23.17 | .000 | Significant |
| **Group** | 318.56 | 1 | 318.56 | 55.73 | .000 | Significant |
| **Error** | 668.60 | 117 | 5.72 | | | |
| **Total** | **30,954.00** | **120** | | | | |

Table 8 shows a significant difference between the groups, $F(1,117) = 55.73$, $p < .05$. Consequently, the fourth null hypothesis is rejected. The finding indicates that collaborative digital storytelling significantly improved students' development of narrative elements such as characters, settings and sequence of events.

**Findings**

The findings indicated that students exposed to collaborative digital storytelling performed better in overall narrative essay writing than those taught using the conventional method. The experimental group recorded a higher mean gain in overall performance, suggesting that collaborative digital storytelling enhanced students' ability to develop and communicate narrative ideas effectively. This finding is consistent with Lim and Md Noor (2019) who found that digital storytelling promoted secondary school students' writing skills. The improvement may be attributed to the multimodal nature of digital storytelling, which enables learners to combine written language with images, audio and other digital resources when constructing stories.

The study further found that collaborative digital storytelling improved students' ability to organise ideas in narrative essays. Students exposed to the treatment recorded a higher mean gain than those in the control group. This finding is consistent with Wonglakorn and Deerajviset (2023), who found positive effects of collaborative process writing on secondary school students' writing skills. The collaborative process allows students to discuss story ideas, arrange events logically and receive feedback from their peers before completing their essays. Consequently, students are better able to establish coherence and maintain a logical progression of ideas.

The finding that collaborative digital storytelling improved students' use of vocabulary and grammatical structures also supports the literature reviewed. Through group discussion, script development, peer correction and revision, students are exposed to alternative vocabulary choices and different ways of constructing sentences. This provides opportunities for learners to notice and correct language errors before producing their final narratives. The finding is consistent with Lim and Md Noor (2019), who reported improvements in writing skills through digital storytelling, and Wonglakorn and Deerajviset (2023), whose findings demonstrated the value of collaborative writing activities in improving students' writing performance.

The study also revealed that collaborative digital storytelling significantly improved students' development of narrative elements, including characters, settings and sequence of events. This finding strongly agrees with Bilici and Yilmaz (2024) who found significant improvements in students' narrative skills following collaborative digital storytelling activities. Similarly, Chasanah et al. (2023) reported that collaborative digital storytelling encouraged secondary school students to participate

actively in developing stories and strengthened their story literacy. The present finding may be explained by the fact that students are required to consciously consider characters, settings, events and plot development when producing digital stories. Working collaboratively further enables students to receive suggestions from group members, thereby improving the completeness and coherence of their narratives.

## Conclusion

Based on the findings, the study concludes that collaborative digital storytelling is an effective instructional approach for improving senior secondary students' performance in narrative essay writing in the Federal Capital Territory, Abuja. Students exposed to collaborative digital storytelling demonstrated greater improvement in overall essay performance, organisation of ideas, vocabulary and grammatical structures and development of narrative elements than students taught using the conventional method. The effectiveness of the approach can be attributed to its combination of collaboration, technology, creativity and active participation. By working together to generate ideas, develop stories, write scripts, revise content and produce digital narratives, students receive opportunities to practise writing in a meaningful and engaging environment. Collaborative digital storytelling can therefore serve as a useful alternative or complement to conventional approaches to teaching narrative essay writing.

## Recommendations

Based on the findings, the following recommendations are made:

1. English Language teachers should incorporate collaborative digital storytelling into the teaching of narrative essay writing to provide students with more interactive and engaging writing experiences.
2. Secondary school administrators should provide adequate digital facilities that encompasses computers, internet access, projectors and relevant digital storytelling applications to support technology-enhanced writing instruction.
3. Teacher education and professional development programmes should equip English Language teachers with practical skills for designing and implementing collaborative digital storytelling activities.
4. Students should be encouraged to work collaboratively during story planning, drafting, editing and presentation so that they can benefit from peer interaction and feedback.
5. Educational authorities in the FCT should promote the integration of appropriate digital learning strategies into English Language instruction and provide schools with the necessary infrastructure and technical support.

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