
Barriers to implementation of innovative writing instruction: A mixed-method examination of collaborative and technology-enhanced approaches in Nigerian secondary schools

¹Elizabeth Adedokun, ²Theophilus Adedokun*

¹Department of Arts Education, University of Ilorin, Nigeria

²Department of Media, Language and Communication, Durban University of Technology, South Africa

*Corresponding Author

Email: theoday88@gmail.com

Received:
6 March 2026

Revised:
20 April 2026

Accepted:
25 April 2026

Published:
10 May 2026

How to cite (APA 7th style): Adedokun, E., & Adedokun, T. (2026). Barriers to implementation of innovative writing instruction: A mixed-method examination of collaborative and technology-enhanced approaches in Nigerian secondary schools. *Indonesian Journal of Education and Pedagogy*, 3(1), 83-102. <https://doi.org/10.61251/ijoe.v3i1.345>

Abstract

While collaborative, creative and technology-enhanced approaches show strong research support for writing instruction, few studies examine why these approaches remain underutilised in Nigerian secondary schools. This mixed-method study identified teaching practices, their pedagogical value and implementation barriers. A survey of 167 English teachers (103 public, 64 private schools) measured technique frequency using a four-point Likert scale, supplemented by open-ended responses. Quantitative findings revealed collaborative learning ($M = 3.22$), digital integration ($M = 3.19$) and text framework support ($M = 3.37$) were used significantly less than traditional teacher-directed methods ($M = 3.60$). Digital tools showed the widest variation ($SD = 0.87$), indicating inconsistent adoption. Qualitative analysis revealed that teachers implementing these approaches reported substantial benefits for student engagement and writing quality. However, four barriers constrained wider adoption: large class sizes, insufficient technology infrastructure, limited training in contemporary pedagogies, and examination pressures. Culturally sustaining resources, including Nigerian folktales and authentic texts, significantly enhanced engagement. The study reveals a critical paradox: innovative approaches yield pedagogical benefits when implemented, yet systemic constraints prevent widespread use. Findings inform professional development and policy initiatives to expand teachers' instructional capacity and enhance English language education in Nigerian secondary schools.

Keywords: collaborative learning; creative techniques; digital integration; English teachers; instructional practices

INTRODUCTION

Reading and writing constitute interconnected language competencies whose integrated development fundamentally enhances student literacy acquisition. Contemporary educational research conclusively demonstrates that systematic engagement with reading programmes yields substantial improvements in writing fluency, accuracy and structural sophistication (Booth Olson et al., 2023; Abdeta et al., 2026). Reading functions as essential cognitive scaffolding, exposing learners to genre-specific conventions,



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

© 2026 Authors

compositional techniques and linguistic structures that become internalised and subsequently transferred to independent writing (Ferris & Hedgcock, 2023). Neurocognitive research further substantiates this relationship, revealing that reading and writing processes engage markedly overlapping neural systems (Aryanti et al., 2024), thereby establishing robust theoretical justification for integrated pedagogical approaches.

Beyond this established empirical foundation, emerging evidence increasingly supports collaborative, creative and technology-enabled methodologies as effective alternatives to traditional transmission-based instruction. Collaborative learning mechanisms encompassing peer critique, collective textual analysis and joint composition facilitate reciprocal learning through immediate feedback and heightened metacognitive awareness of compositional processes (Sever & Akyol, 2022). Research substantiates that peer interaction catalyses cognitive development (Nawaz et al., 2024) whilst simultaneously cultivating the communicative competencies integral to writing proficiency (Sholikah & Kusworo, 2025). When pedagogically structured with clarity, collaborative learning significantly elevates both writing quality and student motivation (Kheryadi et al., 2024).

Technology integration similarly demonstrates substantial potential for advancing reading-based writing instruction. Digital platforms, multimedia resources and technology-mediated composition tools facilitate access to diverse textual genres, enable multimodal authorship and furnish real-time formative feedback mechanisms (Bahari & Gholami, 2023; Li et al., 2024). When accompanied by adequate infrastructure and professional development, technology integration enhances both student engagement and literacy outcomes (Abubakar et al., 2024; Sabri et al., 2024).

Culturally sustaining and authentic resources constitute particularly powerful catalysts for engagement and meaningful learning. Pedagogical research demonstrates that culturally congruent texts markedly increase learner engagement and comprehension (Bhowmik & Chaudhuri, 2022; Sutrisno et al., 2024). Local narrative traditions and indigenous linguistic resources provide culturally grounded entry points to literacy whilst exposing students to diverse structural and stylistic possibilities. Authentic texts including periodicals, journalistic materials and community-based resources situate reading and writing within tangible sociocultural contexts (Aghayeva, 2025).

Despite robust empirical support for these approaches, a critical gap exists between research evidence and classroom implementation. Existing literature conclusively establishes that collaborative, creative and technology-enhanced pedagogies improve writing outcomes. However, few empirical studies examine the specific instructional practices characterising these approaches in secondary school contexts, the mechanisms through which they generate educational benefits, or the concrete enabling conditions supporting their use despite systemic constraints. Research has documented broad implementation obstacles such as large class sizes, inadequate infrastructure and limited teacher training (Ajadi, 2024; Nwoke et al., 2024), yet little is known about how teachers actually implement innovative approaches when conditions permit, what specific teaching practices constitute collaborative or technology-enhanced instruction, or how teachers perceive the pedagogical value of these methods based on classroom experience. Graham and Harris (2016) and Ehler et al. (2022) document persistent discrepancies between teachers' knowledge of evidence-based practices and their classroom implementation, yet the mechanisms underlying these gaps remain underexplored.

Furthermore, while culturally sustaining pedagogies are theoretically supported, few empirical studies document how teachers specifically utilise indigenous resources and authentic local texts in Nigerian secondary schools to enhance writing instruction. Studies of cultural integration in EFL contexts exist internationally (Sutrisno et al., 2024; Udeh & Onwanyi, 2024), yet research examining the implementation of culturally sustaining approaches within the Nigerian educational context specifically remains limited. This represents a significant underexplored area, such as the intersection between pedagogical potential and classroom reality, encompassing what teachers do, why they do it, and what enables or constrains their implementation choices.

This mixed-method study addresses this gap by examining the specific instructional instantiation of underutilised approaches. Unlike previous research that has researched the existence of implementation barriers or theoretical benefits of innovative pedagogies in isolation, this study contributes by first identifying the concrete teaching practices and activities that teachers employ when implementing collaborative, creative and technology-enhanced approaches; second, documenting teachers' own perceptions of the pedagogical value of these approaches based on classroom experience; third, exploring the contextual enablers and barriers that shape implementation decisions in Nigerian secondary schools; and fourth, identifying culturally sustaining resources that teachers specifically utilise to enhance student engagement and writing quality. By illuminating the gap between pedagogical research and classroom practice, specifically what occurs in secondary school writing instruction when innovative approaches are employed, this study provides evidence-based guidance for teacher development and educational policy.

In the Nigerian educational context specifically, while the demonstrated potential of twenty-first century pedagogical frameworks encompassing technology integration, collaborative structures and learner-centred models is well-established theoretically, implementation remains substantially impeded by teacher preparation deficits, institutional resistance to instructional change and inadequate material resources (Ajadi, 2024). Systemic structural constraints including inconsistent policy implementation, resourcing insufficiency relative to international benchmarks and fragmented policy initiatives further undermine sustainable, coherent implementation frameworks (Nwoke et al., 2024). Moreover, infrastructure barriers specific to Nigerian schools, notably limited technology access and large classroom enrolments, constrain the implementation of technology-enhanced and collaborative approaches (Oshowole, 2024; Yahya & Zainuddin, 2024).

The research objectives of this study include identifying the particular practices and activities constituting underutilised instructional innovations, including collaborative learning structures, digital integration strategies and culturally sustaining pedagogical frameworks. Further objectives involved analysing the pedagogical benefits and value teachers attribute to such approaches, examining the enabling conditions supporting implementation despite systemic constraints, exploring the authentic and contextual resources teachers utilise for strengthening student engagement, and identifying the barriers restricting more extensive adoption of these approaches. By systematically addressing these objectives, this study illuminates the practical instantiation of underutilised approaches, documents their pedagogical value despite infrequent implementation, and identifies both the structural constraints undermining wider adoption and the enabling conditions supporting successful realisation. This evidence base informs professional development initiatives and educational policy recommendations

designed to expand teachers' instructional capacity and enhance English language education quality within Nigerian secondary school contexts.

METHOD

Study design

This study employed a convergent parallel mixed-method design (Creswell & Clark, 2017) to examine instructional practices in reading and writing among senior secondary school English language teachers in Ogbomoso, Nigeria. In a convergent parallel design, quantitative and qualitative data are collected concurrently, analysed independently, and subsequently merged at the interpretation stage to produce a more complete understanding of the phenomenon than either strand could yield alone (Creswell & Clark, 2017; Fetters et al., 2013). This design was selected not merely for its technical convenience but for substantive epistemological reasons. The research questions required both the measurement of behavioural frequency across a large population and the interpretive exploration of the meanings teachers assign to their instructional choices, goals that are epistemologically complementary rather than contradictory (Greene et al., 1989; Morgan, 2007).

The quantitative strand operationalised teaching frequency through Likert-scale items, generating numerical data amenable to descriptive and comparative analysis. The qualitative strand employed open-ended questioning to access teachers' subjective accounts of practice, capturing pedagogical reasoning that survey items cannot accommodate (Bryman, 2016). This methodological integration reflects the pragmatist philosophical position underpinning mixed-method research, wherein the research question rather than a single paradigmatic commitment governs method selection (Johnson & Onwuegbuzie, 2004; Tashakkori & Teddlie, 2010).

Integration of the two strands occurred at the level of interpretation, consistent with the triangulation protocol described by Morse (2010), whereby quantitative patterns of underutilisation were interrogated against qualitative accounts of implementation, enabling explanatory convergence where the findings corroborated each other and productive divergence where they illuminated contradictions worthy of further theoretical attention. This approach strengthens the internal validity of the study by reducing over-reliance on any single data source and mitigating the inherent limitations of self-report survey data in isolation (Johnson and Onwuegbuzie, 2004).

Participants and sampling

The accessible population comprised all 167 English language teachers employed at senior secondary schools across three local government areas (LGAs) of Ogbomoso, namely Ogbomoso North, Ogbomoso South, and Ogo-Oluwa. Of this number, 103 were employed in public schools and 64 in private schools, yielding a total census of the available teacher population within the defined geographic boundaries. For the quantitative strand, all 167 teachers submitted usable survey responses. For the qualitative strand, 150 teachers provided open-ended responses, with 17 omitting this section entirely.

Purposive sampling was employed as the primary sampling strategy. Purposive sampling is theoretically appropriate when the research objective requires participants who possess specific characteristics directly relevant to the phenomenon under investigation (Patton, 2014; Given, 2008). In this study, inclusion criteria mandated that participants were actively employed at senior secondary level at the time of data

collection and held direct instructional responsibility for both reading and writing skills within the English language curriculum. These criteria ensured that all participants had the experiential authority to report meaningfully on the targeted instructional practices.

The selection of Ogbomoso's three LGAs was purposively determined based on administrative accessibility, the density of senior secondary schools across both public and private sectors, and their collective representation of urban, peri-urban, and semi-rural schooling contexts within the same geopolitical zone of Oyo State. While the researchers acknowledge that purposive sampling of geographically bounded LGAs limits the statistical generalisability of findings to other regions or states in Nigeria (Etikan et al., 2016), this limitation is consistent with the exploratory and contextually grounded aims of the study. The findings are therefore best understood as analytically generalisable, informing theoretical understanding of instructional constraints, rather than statistically representative of all Nigerian secondary school English teachers (Yin, 2014; Lincoln & Guba, 1985). A further limitation acknowledged here is the potential for response bias inherent in self-report instruments, whereby teachers may overstate the frequency of desirable practices or underreport constrained ones (Podsakoff et al., 2003). The inclusion of the qualitative strand partially addresses this concern, as open-ended responses provided a secondary check on patterns observed in the Likert-scale data.

Data collection

A researcher-developed survey questionnaire served as the primary data collection instrument and was structured across three sections. Section A gathered demographic data including gender, school type, years of teaching experience, and highest educational qualification. Section B comprised 12 items assessing the frequency of specific teaching techniques, measured on a four-point Likert scale with response options of Always, Often, Seldom, and Never. A four-point scale was deliberately adopted to avoid the central tendency bias associated with mid-point neutral options on odd-numbered scales, thereby producing more differentiated frequency data (Garland, 1991; Chomeya, 2010). Section C comprised a single open-ended question inviting teachers to describe additional techniques they employed in reading and writing instruction, providing qualitative data unconstrained by the predetermined categories of the structured items (Bryman, 2016).

Content validity was established through expert review by specialists in Arts Education and in Tests and Measurement within the Faculty of Education, University of Ilorin, who evaluated item relevance, clarity, and alignment with the study's conceptual framework. Reliability was assessed through a test-retest procedure administered at a four-week interval to teachers in non-sample schools. The Pearson Product Moment Correlation coefficient of $r = 0.76$ was obtained, indicating acceptable temporal stability of the instrument (Kline, 2013; Cohen, Manion and Morrison, 2018).

Integration strategy

A critical feature of the mixed-method design was a pre-specified integration strategy rather than a post hoc merging of results. Consistent with the convergent parallel model (Creswell & Clark, 2017), the two data strands were designed to address overlapping but epistemologically distinct dimensions of the same research problem. The quantitative items measured the reported frequency of collaborative learning, digital integration, and text framework support, while the open-ended question sought to capture teachers' descriptions of how and why such techniques were or were not employed. At the analysis stage, quantitative mean scores and standard deviations were first computed independently. Qualitative themes were then developed inductively from the open-ended

responses. Integration was achieved at the interpretation stage through a joint display approach (Guetterman et al., 2015), wherein quantitative frequency patterns were systematically compared against qualitative thematic findings to identify points of convergence, complementarity, and divergence. This triangulation strategy enhances the overall trustworthiness of the findings by cross-validating numerical patterns with teachers' lived accounts (Denzin, 2017; Morse, 2010).

Data analysis

Quantitative analysis

Quantitative data from the Likert-scale items were analysed using descriptive statistics, specifically mean scores and standard deviations, to characterise the frequency of use of the three focal instructional techniques, namely collaborative learning, digital integration, and text framework support. The decision to employ descriptive rather than inferential statistics was deliberate and is justified on two grounds. First, the primary research objective was to establish the overall frequency profile of instructional practices across the entire accessible population rather than to test hypotheses about group differences. Descriptive statistics are the appropriate analytical tool for this purpose (Field, 2024; Pallant, 2020). Second, because the study targeted the full census of eligible teachers within the defined LGAs rather than a probability sample, inferential generalisation to a broader population was not the intended analytical goal (Cohen et al., 2018).

It is nonetheless acknowledged that comparative analysis between sub-groups, for instance between public and private school teachers or across experience levels, would enrich the findings considerably. Future research should consider employing independent samples t-tests or Mann-Whitney U tests to examine whether statistically significant differences in instructional frequency exist across school type or teacher demographic variables, as such analyses could illuminate systemic and structural factors shaping pedagogical choice (Field, 2024).

Qualitative analysis

Qualitative data from the open-ended responses of 150 teachers were analysed using Braun and Clarke's (2006) six-phase framework for thematic analysis, following an inductive approach in which themes emerged directly from the data rather than being imposed from a prior theoretical framework. The six phases were applied as follows. Phase one involved familiarisation with the data through repeated reading of all 150 responses. Phase two involved systematic generation of initial codes by identifying meaningful units of text relating to instructional technique, implementation context, and perceived pedagogical value. Phase three involved collation of codes into candidate themes. Phase four required review and refinement of themes against the coded dataset and the full data corpus. Phase five entailed clear definition and naming of final themes and sub-themes. Phase six involved production of the analytical report integrating thematic findings with supporting extracts.

To enhance the trustworthiness of the qualitative analysis, several procedures were employed. Credibility was strengthened through prolonged engagement with the data and member-checking, whereby a subset of participants reviewed preliminary thematic interpretations to confirm that the themes accurately reflected their intended meanings (Lincoln & Guba, 1985). Dependability was supported by maintaining an audit trail documenting coding decision, theme evolution, and analytical rationale throughout the analysis process (Shenton, 2004). To assess coding consistency, inter-rater reliability was established by having a second researcher independently code a randomly selected 20%

subsample of responses ($n = 30$). Cohen's Kappa was calculated to quantify agreement beyond chance, with a coefficient of $\kappa = 0.81$ indicating strong inter-rater agreement (Landis & Koch, 1977; McHugh, 2012). Discrepancies were resolved through discussion and consensus, and the final coding scheme was applied uniformly across the full dataset.

Integration of findings

Following independent analysis of both strands, findings were integrated through a joint display in which quantitative frequency data and qualitative themes were presented side by side to facilitate systematic comparison (Guetterman et al., 2015). This integration stage enabled the researchers to determine where qualitative accounts confirmed, extended, or problematised the patterns observed in the survey data, thereby fulfilling the triangulation purpose of the convergent parallel design (Creswell & Clark, 2017; Morse, 2010).

Ethical considerations

Research ethics approval was obtained from the Department of Arts Education, Faculty of Education, University of Ilorin, prior to data collection. Formal access was negotiated through official correspondence with school principals, who were provided with a full explanation of the study's objectives, procedures, and anticipated outputs. Participant anonymity was maintained by ensuring that neither names nor school identifiers were recorded on questionnaires or in the final report. Participation was entirely voluntary, with all teachers informed of their right to withdraw at any point without negative consequence. Confidentiality was protected through secure storage of all data, with access restricted to the research team. All procedures adhered to the ethical principles outlined in the British Educational Research Association (2018) guidelines, including respect for persons, minimisation of harm, and transparency of purpose.

RESULTS AND DISCUSSION

Results

Quantitative overview of lower-frequency techniques

Analysis of technique usage (Table 1) revealed that collaborative, technology-enhanced and text framework approaches represent the lowest-frequency instructional methods employed by teachers. Collaborative Learning achieved a mean score of 3.22 (SD 0.83), indicating "often" usage but substantially below the overall weighted mean of 3.45. Digital Integration recorded the lowest mean score at 3.19 (SD 0.87), similarly indicating "often" usage but with the widest standard deviation, suggesting substantial variation in teacher implementation. Text Framework Support achieved a mean of 3.37 (SD 0.75), falling below overall mean though above digital integration. These quantitative findings establish that while teachers employ these approaches with some regularity, they utilise them less frequently than traditional, teacher-directed techniques such as reading discussion (3.60) and text organisation (3.57). This quantitative underutilisation prompted examination of qualitative data to understand what specific practices characterise these approaches and why they remain less frequently implemented despite theoretical support.

Table 1

Mean and Standard Deviation of Techniques Senior Secondary School English Teachers Employ in Using Reading to Teach Writing in Ogbomoso, Nigeria

S/N	Techniques	Mean	Std. Dev.	Remark
1	Reading Models: I expose students to various text types to understand structure and features before writing.	3.52	0.66	Always
2	Reading-Writing Integration: I guide students through pre-reading, reading and post-reading activities that lead to writing tasks.	3.52	0.74	Always
3	Text Analysis: I help students analyse reading texts to understand organisation and language features for writing.	3.49	0.64	Often
4	Collaborative Learning: I use pair/group work for students to discuss readings and provide peer feedback on writing.	3.22	0.83	Often
5	Text Framework: I provide reading-based outlines and templates to support student writing.	3.37	0.75	Often
6	Differentiated Tasks: I assign varied reading and writing tasks based on students' abilities and needs.	3.50	0.69	Always
7	Reading Response: I use reading texts as prompts for creative and analytical writing tasks.	3.48	0.68	Often
8	Text Organisation: I teach students to use reading texts to understand coherence and organisation in writing.	3.57	0.57	Always
9	Individual Guidance: I provide one-on-one feedback on students' written responses to readings.	3.45	0.62	Often
10	Digital Integration: I use online tools to help students connect reading and writing activities.	3.19	0.87	Often
11	Think-Abud: I demonstrate how to extract writing ideas and patterns from reading texts.	3.47	0.66	Often
12	Reading Discussion: I facilitate discussions about texts before assigning related writing tasks.	3.60	0.59	Always
Weighted Mean		3.45		

Researcher's SPSS output 2025

Collaborative and peer-based learning: Specific practices and barriers

Qualitative analysis revealed that teachers implement collaborative learning through three primary sub-practices: pair and small group work, peer feedback and editing, and drama and role-play. When describing pair and small group work, teachers articulated specific structures enabling interaction. One teacher explained, "I use pair work where one student reads while the other takes notes, then they discuss and write summaries together." (Participant 28). Another described, "Group discussion where students read a passage and discuss the main ideas before writing." (Participant 103). These descriptions reveal teachers' understanding of collaborative structures creating peer interaction and shared meaning-making.

Peer feedback and editing represent more sophisticated collaborative practices. One teacher elaborated that, "I use structured peer review where students use checklists to evaluate each other's writing. Students learn as givers and receivers of feedback." (Participant 45). Another stated that, "Peer-assisted reading between stronger and weaker students helps both groups. The struggling reader gets support, and the stronger reader

reinforces comprehension." (Participant 150). These practices demonstrate understanding that peer interaction develops multiple competencies simultaneously.

Drama and role-play represent creative collaborative approaches. A teacher described that, *"Students perform scenes from texts they have read, which deepens their understanding of character motivation and dialogue, improving their dialogue writing."* (Participant 53). Another noted that, *"Role-play activities for understanding characters and tone help students embody different perspectives they later represent in writing."* (Participant 31). These practices reveal how embodied, performative engagement with texts enhances narrative understanding.

However, qualitative responses revealed substantial barriers constraining collaborative implementation. One teacher candidly stated, *"I try pair work but with sixty students in one class it becomes chaotic."* (Participant 134). Another noted that, *"Peer feedback works better with smaller classes; with 70 students I cannot adequately supervise or ensure quality feedback."* (Participant 132). A third explained that *"Group work helps but takes too much time in my schedule."* (Participant 46). These responses reveal that while teachers understand the value of collaborative approaches, large class sizes, limited time and management challenges prevent frequent implementation. One teacher synthesised the challenge, stating that *"I would use more collaborative activities if class sizes were smaller and I had preparation time to structure them effectively."* (Participant 86).

Creative and motivational techniques: Specific practices and implementation

Creative and motivational techniques emerged as relatively frequently implemented (22.0 percent of qualitative responses) despite their innovation. Teachers described specific practices including games, storytelling, competitions and art-based integration. Regarding games, one teacher stated, *"I use word games like Scrabble and crossword puzzles to build vocabulary, which students then use in writing. Games make learning fun rather than punitive."* (Participant 93). Another explained that *"I make games from cardboard and paper so I can do them regularly even though the school provides no budget for materials."* (Participant 95). These responses reveal how teachers exercise resourcefulness, leveraging minimal materials to create engaging learning.

Storytelling and creative writing received substantial emphasis. A teacher described that *"I have students tell stories from their own lives orally, then write them. The oral sharing helps them plan and receive feedback before writing."* (Participant 66). Another stated that *"Creative writing from personal experience is most engaging because students write about what they know and care about. When students care, they write better."* (Participant 111). These practices reveal understanding of the role of oral rehearsal in writing development and personal relevance's motivational power.

Competitions and performances represent high-engagement approaches. One teacher noted that *"Poetry recitation competitions engage students because they want to win and impress peers. The competitive element provides motivation."* (Participant 144). Another elaborated that *"We hold annual storytelling and creative writing contests. These competitions motivate even reluctant writers to produce their best work."* (Participant 28). A third stated that *"Organising inter-class competitions drives students to write their best because the competition matters to them."* (Participant 30).

Notably, creative and motivational techniques received relatively higher implementation frequency compared to digital techniques, suggesting that despite resource constraints, teachers prioritise creative engagement. The enabler appears to be

accessibility and low-cost implementation; teachers demonstrated creativity in working within constraints rather than viewing limitations as prohibitive.

Technology and digital tool integration: The implementation gap

Despite theoretical support for technology integration, digital approaches achieved the lowest usage frequency (3.19) (Table 1). Qualitative analysis revealed that teachers understand technological benefits but face infrastructure barriers. One teacher stated, *"I use YouTube videos when I can access the computer lab, showing stories with subtitles. Students watch, discuss and write responses. But I can only do this occasionally because the lab is always booked."* (Participant 21). Another elaborated that *"Audio recordings help struggling readers access complex texts. When available, technology really supports reading-writing connections."* (Participant 44). These statements reveal that when technology is accessible, teachers recognise substantial pedagogical value.

Teachers described awareness of online platforms without access to implement them. One stated, *"I know about online literacy platforms like StoryWeaver and African Storybook, but I can't reliably access them because our internet is too slow and frequently disconnected. When I can access them, they are excellent resources."* (Participant 99). Another noted, *"I've heard about AI tools that could support teaching but have no training or access."* (Participant 147). A third synthesised the barrier, stating that *"The digital divide is real. I try to use online platforms, but students lack devices at home, and school computers are limited."* (Participant 60).

Strikingly, teachers demonstrated knowledge of technological possibilities yet faced infrastructure barriers preventing implementation. One teacher stated, *"I would integrate technology more frequently if we had reliable internet and enough computers for students to use. The technology exists; the access does not."* (Participant 103). Another explained that *"Technology integration requires investment we don't have. Our school can barely maintain the few computers we have, let alone expand them."* (Participant 5). These responses reveal that low digital integration frequency reflects infrastructure constraints rather than pedagogical resistance or lack of teacher knowledge.

Differentiated and continuous practice: Supporting diverse learners

Differentiated and continuous practice represented relatively underemphasised approaches (14.7 percent of responses) yet revealed important insights. Regarding individualised support, one teacher described, *"I try to provide individual conferences with struggling writers, reviewing their work and discussing improvements. However, with large classes and limited preparation time, I cannot do this as frequently as students need."* (Participant 57). Another stated that *"I provide one-on-one writing feedback sessions but only for students who most need it because time constraints prevent reaching everyone."* (Participant 29). These responses reveal commitment constrained by structural limitations.

Levelled materials enable differentiation. One teacher explained, *"I collect graded readers at different levels so all students can access appropriate texts. When students read at their level they comprehend better and can focus on writing skills."* (Participant 65). However, another noted, *"I would love to use levelled materials, but our school library has limited books and little budget for additional resources. Differentiation requires resources we don't have."* (Participant 142).

Continuous practice emerged as more frequently implemented. One teacher described, *"I require daily journal writing where students write freely without grades. Over*

time, their fluency and confidence improve. This continuous practice is essential." (Participant 110). Another teacher stated that "We do daily reading logs where students record what they read and write reflections. This daily practice keeps reading-writing skills active." (Participant 114). These approaches require minimal resources yet provide substantial practice opportunities.

Real-world and contextual resources: Culturally sustaining practice

Real-world and contextual resources (19.3 percent of qualitative responses) revealed how teachers leverage culturally relevant and authentic materials despite resource constraints. One teacher explained, "I use Yoruba folktales and proverbs as reading materials. Students engage more deeply because they recognise cultural knowledge. They then write their own stories using similar narrative structures." (Participant 58). Another stated that "When I use local stories that students already know culturally, they can focus on language features and narrative structures rather than struggling with unfamiliar content. This makes reading-writing connections clearer." (Participant 94).

Authentic texts represented pragmatic resource solutions. A teacher described that "I bring newspapers and magazines to class because they are cheap and motivating. Students read about issues they care about, then write persuasive essays about those topics." (Participant 111). Another teacher explained that "Using authentic materials like advertisements, news articles and social media posts makes clear why people read and write. Students see real-world reading-writing connections." (Participant 84). These responses reveal how teachers leverage available materials to create engaging, meaningful literacy experiences.

Real-life writing tasks represent authentic purpose and audience. One teacher elaborated that "Students write letters of complaint to local authorities about community problems. The authentic purpose increases effort and quality. They learn that writing matters." (Participant 58). Another stated that "Creating posters and advertisements for school events gives writing authentic purpose and audience beyond grades. Students take these tasks seriously because they matter." (Participant 89). These practices demonstrate understanding that authentic purpose significantly increases student investment and writing quality.

Integration of findings: Why underutilised approaches remain uncommon

The integrated analysis reveals that underutilised approaches represent not pedagogical limitation but rather the result of systemic barriers. Teachers demonstrate clear understanding of collaborative, creative, technology-enhanced and contextually grounded approaches' pedagogical value. When conditions permit implementation, teachers employ these approaches and report substantial benefits. However, large class sizes prevent effective management of collaborative activities, infrastructure limitations prevent technology integration, time constraints prevent individualised support, and examination pressures encourage prioritisation of traditional, efficient approaches over time-intensive interactive methods.

Notably, teachers demonstrate substantial resourcefulness and adaptive expertise when implementing underutilised approaches. Creative and motivational techniques receive relatively higher implementation despite resource constraints, suggesting that accessibility and low-cost implementation enable more frequent adoption. Real-world and contextual resources provide powerful enablers, as teachers leverage available materials and cultural knowledge. Continuous practice approaches enable differentiation within

resource constraints. Teachers actively work within constraints rather than viewing limitations as prohibitive, demonstrating professional commitment to innovation.

The quantitative and qualitative data together reveal that quantitative underutilisation reflects systemic barriers rather than pedagogical limitation. Teachers understand these approaches and attempt to implement them within constraints. The specific practices characterising underutilised approaches demonstrate pedagogical sophistication and evidence-based understanding. Teachers articulate clear pedagogical rationales for these approaches and report student benefits when able to implement them.

Discussion

This study examined specific instructional practices characterising collaborative, creative and technology-enhanced approaches in reading-based writing instruction and investigated why these research-supported approaches remain substantially underutilised in Nigerian secondary schools. The quantitative analysis revealed that collaborative learning (3.22), digital integration (3.19) and text framework support (3.37) achieved lower usage frequencies compared to traditional techniques exceeding 3.50. Qualitative analysis identified the specific practices teachers employ when implementing these approaches, the pedagogical value teachers attribute to them, and systemic barriers constraining their frequent implementation. Findings revealed that teachers demonstrate sophisticated understanding of collaborative, creative and technology-enhanced approaches, implement them when systemic conditions permit, and report substantial pedagogical benefits. However, large class sizes, inadequate technology infrastructure, limited time and examination pressures constrain more frequent implementation. Teachers employ substantial resourcefulness and adaptive expertise, implementing creative and low-cost approaches more frequently than resource-intensive techniques, and leveraging culturally relevant materials to enhance engagement despite resource constraints.

The finding that collaborative approaches receive lower frequency implementation despite theoretical support reflects implementation gaps documented in educational research. [Graham et al. \(2022\)](#) note persistent discrepancies between teachers' knowledge of evidence-based practices and their classroom implementation. These qualitative findings of this study illuminate mechanisms underlying these gaps. Teachers explicitly articulate understanding of collaborative learning benefits yet describe barriers preventing frequent use. Large class sizes emerge as a critical barrier, consistent with extensive literature documenting how overcrowded classrooms constrain interactive teaching ([Seherrie, 2023](#); [Bano et al., 2025](#); [Majeed & Kareem, 2025](#)). One teacher's statement that peer feedback "*works better with smaller classes; with 70 students I cannot adequately supervise or ensure quality feedback*" directly illustrates research findings that class size fundamentally shapes feasible pedagogical approaches ([Yahya & Zainuddin, 2024](#)).

The strikingly low digital integration frequency (3.19, the lowest among all techniques) combined with teacher articulations of technological benefits reveals infrastructure as the critical barrier. Teachers stated, "*I can't reliably access them because our internet is too slow and frequently disconnected,*" and "*The digital divide is real.*" These statements directly reflect infrastructure realities extensively acknowledged in literature regarding Nigerian schools ([Alao & Okoliko, 2024](#); [Oshowole, 2024](#)). Importantly, teachers did not articulate pedagogical concerns or resistance to technology; rather, they identified infrastructure barriers preventing implementation. This finding contradicts

interpretations attributing low technology use to teacher resistance or limited knowledge, instead highlighting systemic constraints requiring policy intervention. [Muliani et al. \(2024\)](#) demonstrate that technological pedagogical content knowledge alone cannot overcome infrastructure barriers, rather infrastructure access represents a prerequisite to implementation.

The relatively higher frequency of creative and motivational techniques (22.0 percent of responses) despite resource constraints reveals how accessibility enables innovation. Teachers described using minimal materials such as "*cardboard and paper*" to create engaging games and leveraging cultural knowledge through "*local folktales and proverbs*." This resourcefulness aligns with research on teacher adaptive expertise enabling practitioners to work effectively within constraints ([Sims & Fletcher-Wood, 2021](#); [Olayinka & Deniran, 2025](#)). Teachers demonstrate what Le Fevre et al. (2016) terms adaptive expertise, enabling them to modify and contextualise instruction within systemic constraints. The finding that creative approaches receive relatively higher implementation suggests that when approaches do not require substantial resources or infrastructure, teachers can and do implement them despite overall resource limitations.

teachers can and do implement them despite overall resource limitations.

The finding that real-world and contextually grounded resources enable engagement without requiring additional material resources reflects literature on culturally sustaining pedagogy. Teachers' use of "*Yoruba folktales and proverbs*" and authentic materials demonstrate understanding that culturally relevant texts increase engagement ([Udeh & Onwanyi, 2024](#)) and create meaningful learning contexts ([Mamba, 2024](#)). These practices reveal how teachers exercise professional judgment to create engaging experiences leveraging available cultural and community resources. The pedagogical sophistication evident in teachers' descriptions of authentic purpose and audience aligns with research demonstrating that meaningful writing contexts significantly enhance student investment and quality.

The finding that differentiated and continuous practice remain relatively uncommon reflects both accessibility and resource constraints. Teachers described wanting to provide individualised support but facing time constraints preventing comprehensive implementation. However, continuous practice approaches including daily journaling and reading logs, which require minimal resources, received more frequent implementation. This pattern suggests that when approaches are feasible within existing structural constraints, teachers adopt them more readily than approaches requiring additional time or materials beyond current capacity.

The integration of quantitative and qualitative findings reveals that quantitative underutilisation masks pedagogical sophistication and teacher understanding. Teachers articulate clear pedagogical rationales for underutilised approaches and report student benefits when able to implement them. The discrepancy between quantitative underutilisation and qualitative evidence of pedagogical value suggests that policy and practice should focus on systemic interventions enabling broader implementation of approaches teachers already value and understand.

Strengths and limitations

This study possesses important methodological strengths. The mixed-method design enabled examination of both the frequency of technique usage and the specific practices characterising underutilised approaches, providing comprehensive understanding of what these approaches actually entail. The integration of quantitative and qualitative data

enabled identification of patterns evident in frequency data while understanding teachers' perspectives regarding barriers and enablers. The large sample of 167 teacher for quantitative analysis and 150 for qualitative analysis provided substantial data enabling robust pattern identification. The study's contextual grounding in Ogbomoso provides specificity regarding underutilisation patterns in semi-urban Nigerian settings. The validity and reliability of the questionnaire (test-retest correlation 0.76) ensure the credibility of measurement.

However, the study possesses some limitations. As self-reported data, teacher responses may reflect aspirational practice or socially desirable responses rather than actual classroom behaviour. Teachers may describe approaches they believe are pedagogically desirable more frequently than they actually implement them. The cross-sectional design captures practices at a single point rather than tracking implementation changes over time. In addition, while the study identified barriers and enablers through teacher descriptions, it did not systematically rank which barriers prove most constraining or gather detailed implementation data regarding classroom execution. The study's geographic focus on Ogbomoso limits generalisability to other Nigerian contexts, though semi-urban settings and school-type distribution may provide reasonable representation of similar environments. Finally, the analysis depended on teachers' articulation of barriers and enablers; some teachers provided detailed responses while others offered brief statements, potentially biasing theme identification toward more articulate respondents.

Implications and recommendations

The findings generate important implications for professional development and policy. *First*, the identification of infrastructure barriers to digital integration suggests that technology professional development alone will not address underutilisation, rather systemic investment in computer laboratories, reliable internet access and digital learning platforms represents a prerequisite to meaningful technology integration. Ministry of Education should prioritise equipping schools with functional technological infrastructure as foundational for contemporary literacy instruction.

Second, the identification of large class sizes as barriers to collaborative instruction suggests that structural interventions reducing class sizes or providing strategies for managing collaborative activities within large-class contexts would expand implementation of research-based approaches. Teacher professional development should address management strategies enabling collaborative learning within existing structural constraints.

Third, the finding that teachers exercise substantial resourcefulness and adaptive expertise when working within constraints suggests that professional development should build on teachers' existing strengths rather than emphasising deficits. Professional learning communities wherein teachers share resourceful strategies and collectively problem-solve implementation challenges would leverage existing expertise. Recognition of teachers' creative approaches to working within constraints would validate professional competence while identifying scalable innovations.

Fourth, the finding that culturally relevant and real-world materials enable engagement without requiring additional resources suggests that professional development should emphasise how teachers can leverage community knowledge, local materials and authentic contexts to enhance engagement. Curriculum frameworks and

teaching guides should explicitly encourage culturally sustaining pedagogy and authentic writing contexts that teachers can implement within existing resource constraints.

Fifth, the identification of examination pressures as barriers constraining time-intensive approaches suggests that curriculum and assessment reform aligning examinations with contemporary literacy instruction principles would reduce perceived tension between test preparation and pedagogical innovation. If assessments value the writing competencies developed through collaborative and creative approaches, teachers will experience less pressure to prioritise time-efficient traditional methods.

For future research, several directions require investigation. Longitudinal studies tracking whether systemic interventions addressing identified barriers result in increased implementation would illuminate whether barrier removal effectively expands practice. Observational studies examining alignment between teachers' self-reported practices and observed classroom behaviour would establish validity. Research investigating how teachers successfully implement specific underutilised approaches within existing constraints would identify concrete strategies adaptable across schools. Research examining student writing outcomes resulting from different approach combinations would clarify effectiveness of specific underutilised approaches. In addition, research investigating how schools successfully create enabling conditions supporting instructional innovation would identify replicable models for expanding underutilised practices.

CONCLUSION

This study established that the underutilisation of collaborative, creative and technology-enhanced approaches to reading-based writing instruction in Nigerian secondary schools is systemic in origin, not pedagogical. Teachers demonstrate sophisticated awareness of evidence-based practices and exercise considerable professional resourcefulness within their constraints. The central barriers such as large class sizes, inadequate infrastructure, examination pressure and time constraints operate largely beyond individual teacher control and require structural rather than individual-level solutions. Addressing these barriers necessitates targeted infrastructure investment, class size reduction, curriculum and assessment reform, and professional development that builds upon teachers' existing strengths rather than presuming deficit. Without such systemic support, the gap between what teachers know and what they can implement will persist.

Future research should prioritise observational validation of self-reported practices, longitudinal tracking of implementation following targeted interventions, and the identification of schools that have successfully created enabling conditions for instructional innovation. The ultimate goal is to align structural realities with the pedagogical possibilities that teachers already understand.

AUTHOR CONTRIBUTION

Author 1: Conceptualization, methodology, software, data curation, investigation; **Author 2:** Writing original draft preparation, literature review, reviewing, and editing

REFERENCES

- Abdeta, M. T., Olamo, T. G., & Woldeyes, K. M. (2026). Effects of Collaborative Writing on EFL Learners' Writing Accuracy, Fluency, and Complexity: Secondary School in Focus. *Sage Open*, 16(1), 1-14. <https://doi.org/10.1177/21582440251413940>
-

- Abubakar, U., Ogunlade, O. O., & Ibrahim, H. A. (2024). The influence of technology-integrated curriculum resources on student engagement and academic achievement in higher education. *Advances in Mobile Learning Educational Research*, 4(2), 1208-1223. <https://doi.org/10.25082/AMLER.2024.02.014>
- Aghayeva, J. (2025). The Using Authentic Texts to Foster Reading Competence in ESL Classrooms: Using Authentic Texts to Foster Reading Competence in ESL Classrooms. *SGS-Engineering & Sciences*, 1(4), 1-7. <https://spast.org/techrep/article/view/5691>
- Ajadi, O. (2024). Potentials Challenges of Twenty-First Century Pedagogies in Nigeria. *Journal of Education for Sustainable Innovation*, 2(1), 64-73. <https://doi.org/10.56916/jesi.v2i1.832>
- Alao, B. O., & Okoliko, A. M. (2024). Surfacing administrative issues of secondary schools in Nigeria: obstacles for a positive change and improvement in the 21st-century. *KWASU International Journal of Education (KIJE)*, 7(1), 171-179. <https://www.kije.com.ng/index.php/KIJE/article/view/97/0>
- Aryanti, N., Anggaira, A. S., Ardiansyah, W., & Suhono, S. (2024). The influential principles in problem-based learning: A systematic review on English language learning. *JOLLT Journal of Languages and Language Teaching*, 12(2), 779-792. <https://doi.org/10.33394/jollt.v12i2.10756>
- Bahari, A., & Gholami, L. (2023). Challenges and affordances of reading and writing development in technology-assisted language learning. *Interactive Learning Environments*, 31(10), 7226-7250. <https://doi.org/10.1080/10494820.2022.2065308>
- Bano, S., Minaz, M., & Idris, M. (2025). Overcrowded Classroom: Challenges for Elementary School Teachers. *ProScholar Insights*, 4(1), 8-17. <https://doi.org/10.62997/psi.2025a-41036>
- Bergmark, U. (2023). Teachers' professional learning when building a research-based education: context-specific, collaborative and teacher-driven professional development. *Professional development in education*, 49(2), 210-224. <https://doi.org/10.1080/19415257.2020.1827011>
- Bhowmik, S., & Chaudhuri, A. (2022). Addressing culture in L2 writing: Teaching strategies for the EAP classroom. *Tesol Quarterly*, 56(4), 1410-1429. <https://doi.org/10.1002/tesq.3172>
- Boone Jr, H. N., & Boone, D. A. (2012). Analyzing likert data. *The Journal of extension*, 50(2), 1-5. <https://pdfs.semanticscholar.org/43fc/e7d7e2100c3f4f2bc6fde5a9cb003c20162f.pdf>
- Booth Olson, C., Maamujav, U., Steiss, J., & Chung, H. (2023). Examining the impact of a cognitive strategies approach on the argument writing of mainstreamed English learners in secondary school. *Written Communication*, 40(2), 373-416. <https://doi.org/10.1177/07410883221148724>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp0630a>
- British Educational Research Association. (2018). *Ethical guidelines for educational research*. BERA. <https://www.bera.ac.uk/publication/ethical-guidelines-for-educational-research-2018>
- Bryman, A. (2016). *Social research methods*. Oxford university press.
- Chakyarkandiyil, N., & Prakasha, G. S. (2023). Cooperative learning strategies: Implementation challenges in teacher education. *Problems of Education in the 21st Century*, 81(3), 1-21. <https://doi.org/10.33225/pec/23.81.340>
- Chomeya, R. (2010). Quality of psychology test between Likert scale 5 and 6 points. *Journal of Social Sciences*, 6(3), 399-403. https://www.academia.edu/download/31421197/Likert_Scale_5_and_6_Points.pdf
-

- Cohen, L., Manion, L. and Morrison, K. (2018) *Research Methods in Education*. 8th Ed. London: Routledge. https://sutlib2.sut.ac.th/sut_contents/H108060.pdf
- Creswell, J.W. and Clark, V.L.P. (2017) *Designing and Conducting Mixed Methods Research*. 3rd Ed. Thousand Oaks, CA: Sage. <https://www.cambridgeenglish.org/Images/735110-studies-in-language-testing-volume-43.pdf#page=53>
- Denzin, N.K. (2017) *The Research Act: A Theoretical Introduction to Sociological Methods*. New York: McGraw-Hill. <https://doi.org/10.4324/9781315134543>
- Dorman, W., & Dorman, S. F. (2023). Service-learning: Bridging the gap between the real world and the composition classroom. In *Writing the Community* (pp. 119-132). Routledge.
- Ehlert, M., Hebbecke, K., & Souvignier, E. (2022). Implementing evidence-based practices in reading classrooms—longitudinal interrelations between teaching-related attitudes, innovation-specific perceptions, and perceived implementation success. *Studies in Educational Evaluation*, 75, 1-9. <https://doi.org/10.1016/j.stueduc.2022.101203>
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American journal of theoretical and applied statistics*, 5(1), 1-4. <https://doi.org/10.11648/j.ajtas.20160501.11>
- Ferris, D. R., & Hedgcock, J. S. (2023). *Teaching L2 composition: Purpose, process, and practice*. Routledge.
- Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs—principles and practices. *Health services research*, 48(6pt2), 2134-2156. <https://doi.org/10.1111/1475-6773.12117>
- Field, A. (2024). *Discovering statistics using IBM SPSS statistics*. Sage publications limited. <https://users.sussex.ac.uk/andyf/dsuflyer.pdf>
- Garland, R. (1991). The mid-point on a rating scale: Is it desirable. *Marketing bulletin*, 2(1), 66-70. https://www.rangevoting.org/MB_V2_N3_Garland.pdf
- Given, L. M. (Ed.). (2008). *The Sage encyclopedia of qualitative research methods*. Sage publications. <http://dx.doi.org/10.4135/9781412963909.n364>
- Graham, S., & Harris, K. R. (2016). A path to better writing: Evidence-based practices in the classroom. *The Reading Teacher*, 69(4), 359-365. https://www.creatinggrounds.com/uploads/9/6/2/4/96240662/a_path_to_better_writing.pdf
- Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Educational evaluation and policy analysis*, 11(3), 255-274. <https://doi.org/10.2307/1163620>
- Guetterman, T. C., Fetters, M. D., & Creswell, J. W. (2015). Integrating quantitative and qualitative results in health science mixed methods research through joint displays. *The Annals of Family Medicine*, 13(6), 554-561. <https://doi.org/10.1370/afm.1865>
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational researcher*, 33(7), 14-26. <https://doi.org/10.3102/0013189X033007014>
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational researcher*, 33(7), 14-26. <https://doi.org/10.3102/0013189X033007014>
- Kheryadi, K., Suseno, M., & Lustyantje, N. (2024). Flipped classroom with collaborative learning approach in enhancing writing skills of Indonesian university students. *International Journal*
-

of *Evaluation and Research in Education*, 13(1), 407-413.
<http://doi.org/10.11591/ijere.v13i1.25269>

Kline, P. (2013) *Handbook of Psychological Testing*. 2nd Ed. London: Routledge.

Landis, J.R. and Koch, G.G. (1977). 'The measurement of observer agreement for categorical data', *Biometrics*, 33(1), 159-174. <https://doi.org/10.2307/2529310>

Le Fevre, D., Timperley, H., & Ell, F. (2016). Curriculum and pedagogy: The future of teacher professional learning and the development of adaptive expertise. *The SAGE handbook of curriculum, pedagogy and assessment*, 2, 309-324.
<https://doi.org/10.4135/9781473921405.n20>

Li, W., Chen, X., & Huang, L. (2024). Promoting second language writing through technology-driven multimodal text feedback. *Innovation in Language Learning and Teaching*, 18(5), 462-479.
<https://doi.org/10.1080/17501229.2024.2315104>

Likert, R. (1932). A technique for the measurement of attitudes. *Archives of psychology*, 22 (140), 55-55. <https://psycnet.apa.org/record/1933-01885-001>

Lincoln, Y.S. and Guba, E.G. (1985) *Naturalistic Inquiry*. Newbury Park, CA: Sage.

Majeed, A. J., & Kareem, F. (2025). Teaching difficulties in overcrowded classrooms. *Journal of Humanities*, 32(2), 1414-1443. <https://doi.org/10.33855/0905-032-002-021>

Mamba, M. A. (2024). Authentic materials: fostering collaborative language learning. *European Journal of English Language Teaching*, 9(2), 63-70.
<http://dx.doi.org/10.46827/ejel.v9i2.5419>

McHugh, M. L. (2012). Interrater reliability: the kappa statistic. *Biochemia medica*, 22(3), 276-282.
<https://hrcak.srce.hr/89395>

Morgan, D. L. (2007). Paradigms lost and pragmatism regained: Methodological implications of combining qualitative and quantitative methods. *Journal of mixed methods research*, 1(1), 48-76. <https://doi.org/10.1177/2345678906292462>

Morse, J. M. (2010). Simultaneous and sequential qualitative mixed method designs. *Qualitative inquiry*, 16(6), 483-491. <https://doi.org/10.1177/1077800410364741>

Morse, J.M. (2010). 'Procedures and practice of mixed method design', in Tashakkori, A. and Teddlie, C. (eds.) *SAGE Handbook of Mixed Methods in Social and Behavioral Research*. 2nd edn. Thousand Oaks, CA: Sage, pp. 339-352.

Muliani, M., Sukarni, S., & Jumadil, J. (2024). English Teachers' Tecnological Knowledge and Some Barriers on It: The Basis for Developing TPACK Teaching Model. *JOLLT Journal of Languages and Language Teaching*, 12(1), 499-510. <https://doi.org/10.33394/jollt.v12i1.9628>

Nawaz, M., Nizamani, M., & Hameed, R. (2024). Analyze how children acquire language and the cognitive processes involved, including the role of environmental and social factors. *Bulletin of Business and Economics (BBE)*, 13(3), 239-247. <https://doi.org/10.61506/01.00483>

Nwoke, C., Oyiga, S., & Cochrane, L. (2024). Assessing the phenomenon of out-of-school children in Nigeria: Issues, gaps and recommendations. *Review of Education*, 12(3), 1-29.
<https://doi.org/10.1002/rev3.70011>

Olayinka, S., & Deniran, E. M. (2025). Teacher-community nexus and rural schools as community knowledge hubs: a program implementation in Western Nigeria. *Journal of Professional Capital and Community*, 10(3), 260-272. <https://doi.org/10.1108/JPC-02-2024-0026>

Oshowole, S. A. (2024). *Barriers impacting the integration of classroom technology in primary schools in Lagos, Nigeria* (Doctoral dissertation, Saint Leo University).
<https://eric.ed.gov/?id=ED664210>

- Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. Routledge. <https://doi.org/10.4324/9781003117407>
- Patton, M. Q. (2014). *Qualitative research & evaluation methods: Integrating theory and practice*. Sage publications.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003) 'Common method biases in behavioral research', *Journal of Applied Psychology*, 88(5), pp. 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Sabri, S. M., Ismail, I., Annuar, N., Rahman, N. R. A., Abd Hamid, N. Z., & Abd Mutalib, H. (2024). A conceptual analysis of technology integration in classroom instruction towards enhancing student engagement and learning outcomes. *Integration*, 9(55), 750-769. <https://doi.org/10.35631/IJEPC.955051>
- Seherrie, A. C. (2023). Toward an innovative cooperative learning framework to counterbalance the effects of overcrowded classrooms. *Axiom Academic Publishers*, 1, 119-150. <https://doi.org/10.62869/001c.123561>
- Sever, E., & Akyol, H. (2022). The impact of collaborative learning techniques on written expression, self-regulation and writing motivation. *International Electronic Journal of Elementary Education*, 14(5), 587-603. <http://doi.org/10.26822/iejee.2022.265>
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for information*, 22(2), 63-75. <https://doi.org/10.3233/EFI-2004-22201>
- Sholikah, F., & Kusworo, B. (2025). An Investigation of The Impact of Using Peer Review on Writing Skill Development. *International Journal on Advanced Science, Education, and Religion*, 8(3), 323-330. <https://doi.org/10.33648/ijoaser.v8i3.1223>
- Sims, S., & Fletcher-Wood, H. (2021). Identifying the characteristics of effective teacher professional development: A critical review. *School effectiveness and school improvement*, 32(1), 47-63. <https://doi.org/10.1080/09243453.2020.1772841>
- Sutrisno, D., Abbas, A., & Annury, M. N. (2024). Enhancing Writing Skills Through Cultural Integration: Exploring the Impact of Culturally-Responsive Writing Instruction in Diverse EFL Classrooms. *Global Synthesis in Education Journal*, 2(3), 1-16. <https://doi.org/10.61667/rpm4cp30>
- Tashakkori, A. and Teddlie, C. (2021). *SAGE Handbook of Mixed Methods in Social and Behavioral Research*. 2nd Ed. Thousand Oaks, CA: Sage.
- Udeh, J. C., & Onwanyi, V. (2024). Investigating the Efficacy of Integrating Nigerian Cultural Texts into the English Language Curriculum for Secondary School Students. *GNOSI: An Interdisciplinary Journal of Human Theory and Praxis*, 7(1), 66-79. <https://gnosijournal.com/index.php/gnosi/article/view/251>
- Waad, M. A., & Younus, R. Z. (2022). The role of audiovisual aids in teaching English. *International journal of health sciences*, 6(S5), 10616-10622. <https://doi.org/10.53730/ijhs.v6nS5.10840>
- Yahya, A., & Zainuddin, A. H. A. (2024). Class Size in English Language Teaching: Teacher's Perspective. *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature*, 12(1), 641-652. <https://doi.org/10.24256/ideas.v12i1.4975>
- Yin, R.K. (2014). *Case Study Research: Design and Methods*. 5th edn. Sage.

Conflict of Interest Statement: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2026 Author(s). This is an open-access article distributed under the terms of the [Creative Commons Attribution 4.0 International License \(CC BY\)](https://creativecommons.org/licenses/by/4.0/). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.