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POSITIVE TECHNOLOGY ACCEPTANCE, LIMITED PEDAGOGICAL INTEGRATION: TEACHERS' AND STUDENTS' PERCEPTIONS OF GOOGLE CLASSROOM FOR EFL WRITING IN ETHIOPIAN SECONDARY SCHOOL

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ABSTRACT

The integration of Learning Management Systems (LMSs) into language education has expanded opportunities for technology-enhanced writing instruction; however, positive technology acceptance does not necessarily translate into deep pedagogical integration. This study investigated teachers' and students' perceptions and experiences of using Google Classroom (GC) for EFL writing instruction in a private secondary school in Addis Ababa, Ethiopia. A descriptive mixed-methods design with a quantitative emphasis was employed. Data were collected from four English language teachers and 60 Grade 11 students through structured questionnaires, complemented by six classroom observations and semi-structured interviews with three teachers and six students. Quantitative data were analyzed using descriptive statistics, while qualitative data were thematically analyzed and integrated with quantitative findings. Teachers generally perceived GC positively (M = 3.85), and students reported positive perceptions of its ease of use and accessibility. However, observations and interviews showed that GC was used more for distributing materials, assigning tasks, managing deadlines, and collecting work than for collaborative writing, sustained feedback, peer interaction, and recursive revision. Training and support represented a weaker area for teachers, while students reported modest contributions of GC to writing development. The findings indicate that GC was functionally adopted more strongly than pedagogically transformed, highlighting teacher digital pedagogical competence, instructional design, technological access, and institutional support as conditions for meaningful integration.

Keywords: *Collaborative Writing; Digital Feedback; EFL Writing; Ethiopia; Google Classroom; Pedagogical Integration; Technology Acceptance*

Introduction

The rapid integration of digital technologies into education has expanded opportunities for organizing instruction, facilitating communication, providing feedback, and extending learning beyond the physical classroom. In EFL education, digital learning environments are particularly relevant to writing instruction because they can support drafting, feedback, revision, interaction, and learner participation. Recent research indicates that technology-supported writing can be productive when digital affordances are deliberately incorporated into pedagogical activities rather than used primarily for content delivery or assignment management (Albesher, 2024; Kılınç & Yüksel, 2024; Lv et al., 2021). UNESCO (2023) likewise emphasizes that the educational value of technology depends substantially on how it is designed, implemented, and supported within particular educational contexts.

Google Classroom (GC) has attracted attention in EFL education because it provides accessible functions for distributing resources, organizing assignments, communicating with learners, and managing assessment. Research

conducted in EFL writing contexts has generally reported favorable perceptions of the platform. Lin (2021), for example, demonstrated the potential of Google Classroom for an online composition course, while Rosyada and Sundari (2021) reported positive student perceptions of its practical features in an EFL academic-writing course. Indrayani and Sukaesih (2022) likewise examined Google Classroom in writing instruction and reported benefits for writing activities. More recently, Pham and Nguyen (2024) found generally positive student acceptance of Google Classroom in university EFL writing classes. These studies suggest that GC can provide useful affordances for writing instruction, particularly when its functions are connected to explicit writing activities.

However, positive acceptance does not necessarily indicate deep pedagogical integration. Writing instruction is process-oriented and normally involves planning, drafting, feedback, revision, editing, and reflection. Recent evidence shows that online feedback can positively influence EFL writing, but its effectiveness varies according to feedback source, task characteristics, educational level, and implementation conditions (Lv et al., 2021). Similarly, collaborative peer-feedback research indicates that effective digital collaboration involves interaction, negotiation, shared responsibility, and sustained participation rather than simply exchanging comments (Guo et al., 2024; Zou et al., 2023). Collaborative writing research has also shown that online environments can support writing performance when collaboration and revision are deliberately designed into instruction (Bueno-Alastuey et al., 2022; Kılınç & Yüksel, 2024). Recent Google-mediated writing research reinforces this distinction. Albesher (2024) as well as Saputri (2023) found that Google-mediated collaborative writing supported several global and local dimensions of ESL students' writing. Nappu et al. (2025) similarly reported positive effects of peer feedback through Google Classroom on aspects of EFL essay quality. By contrast, studies examining student attitudes toward Google Classroom have also identified a gap between operational convenience and deeper learning outcomes (Abdeta et al., 2026; Tohamba et al., 2024). Thus, the pedagogical consequences of Google Classroom depend not merely on access to the platform but on how teachers design and facilitate writing processes.

The Ethiopian context makes this issue particularly important. Research on secondary education in Ethiopia has identified infrastructural limitations, uneven access, and insufficient capacity-building as important constraints on integrated ICT use (Bati & Workneh, 2021). Demissie et al. (2022) further found that, teachers' technological and pedagogical competencies, in-service training, attitudes toward technology, access to tools, and administrative support were associated with technology integration in Ethiopian secondary schools. Recent Ethiopian writing research also demonstrates that technology-supported writing can be effective when it is embedded within a deliberate pedagogy. Sime et al. (2024), for example, incorporated Google Classroom into blended writing instruction involving collaborative writing, peer interaction, scaffolding, online resources, face-to-face support, and feedback. Demissie et al. (2025) and Tang et al. (2022) likewise found positive writing effects from Google Docs-supported collaborative writing among Ethiopian EFL learners.

Despite growing research on Google Classroom and technology-supported EFL writing, an important empirical and theoretical issue remains insufficiently examined: whether positive perceptions and acceptance of a digital platform translate into meaningful pedagogical integration. Existing studies have frequently examined acceptance, usability, or particular technological applications, whereas comparatively less attention has been given to the relationship between technology acceptance and the actual implementation of collaborative, feedback-oriented, and process-based writing practices. Moreover, relatively few studies have combined teachers' and students' perceptions with classroom observations and interviews to examine this relationship within the same secondary-school EFL context. This gap is particularly relevant in Ethiopia, where evidence concerning Google Classroom-supported writing in private secondary schools remains limited. The present study addresses this gap by examining teachers' and students' perceptions and experiences of using GC for EFL writing instruction at Radical Academy Secondary

School in Addis Ababa, Ethiopia. Unlike studies focusing primarily on acceptance, the present study combines questionnaire data with classroom observations and semi-structured interviews to examine the relationship among perceived usefulness, instructional practices, feedback, revision, collaboration, engagement, and contextual constraints.

The study is informed by three complementary theoretical perspectives. The Technology Acceptance Model (TAM) explains how perceived usefulness and perceived ease of use influence technology acceptance (Davis, 1989). Social Constructivism emphasizes interaction, dialogue, feedback, and scaffolding in learning (Vygotsky, 1978), while Computer-Supported Collaborative Learning (CSCL) focuses on collaboration and shared knowledge construction through technology-mediated activity (Dillenbourg, 1999; Gunawardena, 1997). Recent work on teacher digital competence indicates that effective technology integration requires pedagogical and professional competence in addition to technical skills (Basilotta-Gómez-Pablos et al., 2022; Tzafilkou et al., 2023). Together, these perspectives allow the study to distinguish between accepting a technology, using it functionally, and integrating it pedagogically. The study addresses three research questions: How do teachers and students perceive the usefulness, accessibility, and role of Google Classroom in supporting EFL writing instruction? How is Google Classroom integrated into writing instruction, particularly regarding feedback, revision, and collaborative learning? What contextual factors influence the effective integration of Google Classroom in secondary EFL writing classrooms?

Method

This study employed a mixed-method descriptive design to explore teachers' and students' perceptions and experiences of using Google Classroom (GC) to support EFL writing instruction at Radical Academy Secondary School (RASS) in Addis Ababa. The study focused particularly on how GC was being used in writing-related activities, the perceived usefulness and accessibility of the platform, feedback and revision practices, student engagement, challenges encountered, and contextual conditions that may influence its continued use. A mixed-method approach was considered appropriate because the study sought to examine both participants' reported perceptions and experiences and the ways in which GC was actually used during writing instruction. Quantitative data provided descriptive evidence of teachers' and students' perceptions, while interviews and classroom observations provided qualitative evidence concerning actual practices, experiences, challenges, and contextual conditions. The three sources were subsequently compared and integrated through triangulation, particularly where related findings emerged across questionnaires, interviews, and observations. The study was conducted during the second semester of the 2024/2025 academic year at RASS. The school was selected as the setting for this study because Google Classroom was being used as part of the school's teaching and learning practices, providing an appropriate context for examining its use in EFL writing instruction.

The participants were four EFL teachers (available sampling) and 60 Grade 11 students at RASS. The four teachers were responsible for teaching EFL at the secondary-school level, including Grades 9–12. The teacher sample was based on availability and constituted the entire available population of EFL teachers teaching at this level in the selected school during the study period. Thus, the inclusion of four teachers was not intended to represent a statistically generalizable sample of secondary-school EFL teachers but to obtain evidence from all eligible teachers available at the research site. The student participants consisted of 60 Grade 11 students drawn from the classes included in the study. The student questionnaire was administered to these participants to obtain a broader description of their experiences and perceptions of GC-supported writing activities. For the qualitative component, three of the four teachers participated in semi-structured interviews. Six Grade 11 students also participated in student interviews. In addition, two teachers were observed during three writing lessons each, resulting in six classroom observation sessions. These qualitative sources were used to complement the questionnaire findings and provide evidence of how GC was used in actual writing instruction. Given the small number of teachers, the teacher questionnaire results were treated as descriptive and exploratory evidence rather than as a basis for

inferential statistical generalization. The purpose of including all four available teachers was to provide a complete picture of the teacher perspective within the selected school.

Three instruments were used for data collection: questionnaires, semi-structured interviews, and classroom observations. The use of these three instruments enabled the researcher to examine the phenomenon from complementary perspectives and to compare reported perceptions with observed instructional practices. Separate questionnaires were developed for teachers and students. The questionnaires consisted primarily of five-point Likert-scale items designed to examine participants' perceptions and experiences concerning the use of GC for EFL writing instruction. The questionnaire items were developed with AI-assisted support during the initial item-generation process and were subsequently critically reviewed, amended, and adapted by the researcher to fit the objectives, research questions, theoretical orientation, and specific context of the study. Thus, the final instruments were researcher-developed/adapted instruments rather than instruments adopted without modification from a single previously validated scale.

The teacher questionnaire contained 30 initial items, of which 27 items were retained and analyzed. These items were organized into six areas: Usage of Google Classroom for Writing Instruction (UGCWI), Perceptions of Google Classroom (PGC), Student Engagement and Learning (SEL), Assessment and Feedback (AF), Challenges and Limitations (CL), and Training and Support (TS). The student questionnaire also contained 30 initial items, with 24 items retained for the reported analysis. The items addressed Ease of Use and Accessibility (EUA), Writing Activities and Instruction (WAI), Engagement and Motivation (EM), Feedback and Teacher Support (FTS), Peer Collaboration and Interaction (PCI), Writing Skill Development (WSD), and Challenges and Preferences (CP). The questionnaire items were reviewed and amended during the instrument preparation process to improve their clarity and contextual appropriateness. The final versions were then administered to the participating teachers and students.

Semi-structured interviews were conducted with three teachers and six students. The interviews sought to obtain more detailed accounts of participants' experiences with GC, including the ways in which they used the platform, its perceived usefulness for writing instruction, feedback and revision practices, student participation, difficulties encountered, and factors that could affect sustained use of the platform. The interviews were conducted in English or Amharic according to participants' communication preferences. With participants' consent, the interviews were audio-recorded and subsequently used as qualitative evidence alongside the questionnaire and observation data.

Classroom observation was used to examine how GC was incorporated into actual EFL writing lessons. A structured observation checklist containing 20 indicators was used to record relevant instructional practices. The observations focused on the use of GC for writing-related tasks, distribution of materials and assignments, submission procedures, deadlines, feedback opportunities, student participation, and other observable features of technology-supported writing instruction. Two teachers were observed across three writing lessons each, resulting in six observed classroom sessions. The observations therefore provided contextual evidence that could be compared with teachers' and students' reported experiences.

The instruments were developed specifically for the purposes of this study. During the initial development of the questionnaires, AI-assisted support was used to generate and organize potential items. However, the researcher did not use the generated items without modification. The items were examined against the study's objectives and research questions and were amended where necessary to ensure that they reflected the particular context of GC use in secondary-school EFL writing instruction. The final items were organized according to the constructs relevant to the study. The same process of contextual adaptation was applied to the interview questions and observation indicators so that the three instruments addressed complementary dimensions of the research problem. The preparation of the instruments was therefore guided by the central purpose of the study: to explore the perceptions and experiences of teachers and students concerning the extent

and manner of GC use for writing instruction, the methods and activities supported by the platform, the challenges encountered, and the conditions that may influence its continued and effective use.

Data were collected using the three complementary instruments. The researcher cooperated with the school principal, particularly during the administration of the questionnaires and interviews, to facilitate access to the participants and coordinate the data collection process. The questionnaires were administered to the four participating teachers and 60 Grade 11 students. The interviews were subsequently conducted with the selected teachers and students to obtain more detailed qualitative accounts of their experiences. Classroom observations were also conducted during writing lessons involving two teachers, with three sessions observed for each teacher. The use of questionnaires, interviews, and observations enabled the researcher to examine the study phenomenon from different sources. For example, participants' questionnaire responses concerning the usefulness or frequency of GC use could be considered alongside their interview explanations and the practices documented during classroom observations.

The questionnaire data were processed using IBM SPSS Statistics Version 24. Descriptive statistics, including frequencies, minimum and maximum values, means, and standard deviations, were used to summarize participants' responses. The construct-level results were interpreted using the five-point Likert scale adopted in the study. Because only four teachers participated in the study, the teacher questionnaire results were interpreted descriptively. No attempt was made to use the teacher data for inferential statistical generalization beyond the selected research site. Internal consistency of the retained questionnaire items was also examined using Cronbach's alpha. For the teacher questionnaire, the 27 retained items produced an overall Cronbach's alpha of $\alpha = .914$. This coefficient represents the internal consistency of the 27 teacher questionnaire items considered as a whole, rather than the reliability coefficient of each individual construct. For the student questionnaire, the 24 retained items produced a Cronbach's alpha of $\alpha = .702$. These coefficients were calculated from the study data using SPSS Version 24. The reliability analysis was used to provide evidence concerning the internal consistency of the retained items; it was not treated as evidence of validity by itself.

The interview and classroom observation data were analyzed thematically. The researcher examined the available qualitative data across the teacher and student respondents and identified recurring ideas, experiences, practices, challenges, and perceptions relevant to the research questions. Related concepts were grouped together and subsequently organized into broader themes. Therefore, the qualitative analysis focused on patterns that emerged across the available interview and observation data rather than treating each respondent as an isolated case. Particular attention was given to recurring evidence concerning actual GC use, assignment distribution and submission, feedback, revision, engagement, technical and accessibility challenges, teacher support, and conditions affecting sustained use.

The qualitative coding was conducted by the researcher. The analysis involved reading the available qualitative material, identifying meaningful units related to the research questions, grouping similar concepts, and developing thematic categories from recurring patterns. The qualitative findings were then used to complement and contextualize the quantitative results. As part of the doctoral supervisory process, the researcher's academic advisor provided an overall review of the main study and revision guidance, which was considered in refining the presentation and interpretation of the qualitative findings.

Integration occurred through comparison and triangulation of findings from the three data sources: questionnaires, interviews, and classroom observations. Rather than treating the quantitative and qualitative findings as separate bodies of evidence, the researcher compared findings that addressed related concepts across the instruments. For example, reported perceptions of GC usefulness and accessibility were considered alongside participants' interview accounts and observed classroom practices. Similarly, questionnaire responses concerning feedback, writing activities, engagement, and challenges were compared with qualitative evidence concerning how teachers actually used GC and how students experienced those

practices. Where findings from different sources converged, the qualitative evidence was used to provide contextual explanation for the quantitative patterns. Where differences appeared between reported perceptions and observed practices, these differences were also considered in interpreting the findings. This process of triangulation strengthened the interpretation by allowing the study to examine not only what participants reported about GC but also how the platform was used in the observed writing classrooms.

The researcher coordinated the data collection process with the school administration and obtained participants' cooperation before administering the instruments. Participants were informed about the purpose of the study and the use of the information they provided. Participation in the interviews and other data collection activities was conducted with the participants' cooperation, and the information collected was treated confidentially in reporting the findings.

The methodological design was intended as an investigation of GC use in EFL writing instruction within one secondary-school context. Consequently, the findings should be interpreted in relation to the specific setting and participants rather than generalized to all Ethiopian secondary schools. The particularly small teacher sample (N = 4) is an important consideration when interpreting the teacher questionnaire findings. However, the four teachers represented the complete available group of EFL teachers teaching Grades 9–12 at the selected school during the study period. Their inclusion therefore provided comprehensive coverage of the teacher population at the study site, while the student questionnaire and qualitative data provided additional perspectives. The study's use of three complementary data sources also enabled a more comprehensive exploration of teachers' and students' perceptions and experiences than reliance on a single instrument would have permitted. Nevertheless, the results are primarily descriptive and exploratory and should be understood as evidence from the selected context rather than as statistically generalizable estimates.

Findings and Discussion

Table 1: Teachers' Perceptions of Google Classroom

Item	N	Min	Max	M	SD
Easy to use for assigning/managing writing tasks.	4	3	4	3.5	0.577
Enhances ability to teach writing effectively.	4	3	5	4.0	0.816
More efficient than traditional paper-based methods.	4	3	5	4.0	0.816
Confidence using GC to support writing development.	4	1	5	3.25	1.708
Supports a structured writing process.	4	4	5	4.5	0.577
Overall construct	4	-	-	3.85	0.899

Teachers generally held positive perceptions of GC (M = 3.85, SD = 0.899). The strongest item concerned support for a structured writing process (M = 4.50), while confidence in using GC to support writing development was comparatively lower (M = 3.25).

Table 2: Students' Ease of Use and Accessibility

Item	N	Min	Max	M	SD
Easy to use for assigning/managing writing tasks.	4	3	4	3.5	0.577
Enhances ability to teach writing effectively.	4	3	5	4.0	0.816
More efficient than traditional paper-based methods.	4	3	5	4.0	0.816
Confidence using GC to support writing development.	4	1	5	3.25	1.708
Supports a structured writing process.	4	4	5	4.5	0.577
Overall construct	4	-	-	3.85	0.899

Students reported generally positive perceptions of accessibility and ease of use. The highest mean concerned locating assignments (M = 3.75), followed by ease of use (M = 3.68).

Pedagogical Integration of Google Classroom

Table 3: Teachers' Use of Google Classroom for Writing Instruction

Item	N	Min	Max	M	SD
Regularly assign writing tasks through GC.	4	3	4	3.75	0.5
Use GC with Google Docs/Drive for writing activities.	4	2	4	3.5	1.0
Assign a variety of writing tasks through GC.	4	4	5	4.5	0.577
Organize writing-related materials/resources through GC.	4	1	4	3.0	1.414
GC is the primary platform for assigning/managing writing.	4	2	3	2.5	0.577
Overall construct	4	-	-	3.45	0.814

Teachers reported a moderate level of instructional use (M = 3.45, SD = 0.814). Assigning varied writing tasks received the highest mean (M = 4.50), whereas considering GC the primary platform for managing student writing received the lowest (M = 2.50).

Table 4: Students' Perceptions of Writing Development

Item	N	Min	Max	M	SD
My writing has improved since using GC.	60	1	5	2.6	1.224
Learned more grammar/vocabulary/structure through digital tasks.	60	1	5	3.12	1.497
Better at organizing and revising because of GC.	60	1	5	2.95	1.294
GC helps me understand writing for different purposes.	60	1	5	3.0	1.365

Students expressed relatively modest perceptions of GC's contribution to writing development. The highest mean was for learning grammar, vocabulary, or structure (M = 3.12), while perceived overall improvement in writing was lowest (M = 2.60).

Six Grade 11 writing lessons involving two teachers were observed. Teacher A used GC relatively extensively by posting writing tasks, sharing resources, setting deadlines, and providing feedback through commenting and review functions. These practices supported several stages of the writing process, particularly revision. Teacher B used GC mainly for distributing assignments and recording grades, with limited evidence of formative feedback or collaborative writing. The observations therefore showed variation in the depth of pedagogical integration.

Teachers and students consistently described GC as an assignment-management platform used mainly for distributing resources, assigning tasks, and collecting completed work. Participants also reported comparatively limited use of iterative drafting, peer interaction, collaborative writing, and formative feedback. These accounts reinforced the observation evidence that GC was used more consistently for task management than for sustained, process-oriented writing instruction.

Table 5: Perceived Challenges and Instructional Constraints

Item	N	Min	Max	M	SD
Experienced technical issues while using GC.	4	3	5	4.0	0.816
Students face access difficulties due to devices/internet.	4	1	5	3.75	1.893
Difficult to monitor writing progress through GC.	4	2	5	3.25	1.5
GC lacks features needed for effective writing instruction.	4	4	5	4.25	0.5
Overall construct	4	-	-	3.81	1.177

Challenges and limitations produced an overall mean of 3.81 (SD = 1.177). Teachers most strongly identified limitations in platform features (M = 4.25) and technical problems (M = 4.00).

Table 6: Students' Challenges and Preferences

Item	N	Min	Max	M	SD
Technical, internet, or login problems.	60	1	5	3.48	1.432
Confusion/uncertainty about writing assignments on GC.	60	1	5	3.1	1.189
Prefer GC writing assignments to pen-and-paper.	60	1	5	3.32	1.524

Students reported moderate technical difficulties (M = 3.48) and a moderate preference for GC over pen-and-paper writing (M = 3.32).

Table 7: Teachers' Perceptions of Training and Institutional Support

Item	N	Min	Max	M	SD
Received sufficient training on using Google Classroom for writing instruction.	4	1	3	2.00	0.816
Would benefit from additional professional development focused on teaching writing using digital platforms.	4	1	5	4.00	2.000
Feel supported by the school/administration in using Google Classroom for writing instruction.	4	1	4	2.75	1.500
Overall construct	4	—	—	2.92	1.439

Training and institutional support produced the lowest overall mean among the teacher constructs (M = 2.92, SD = 1.439). Teachers reported the lowest mean for sufficient training (M = 2.00), while the need for additional professional development received the highest mean (M = 4.00). Participants identified inconsistent internet connectivity, unequal access to devices, varying digital-literacy, and limited professional development as barriers to effective and sustained use of GC. These contextual conditions help explain why positive perceptions of the platform did not consistently translate into deeper pedagogical integration.

Table 8: Integrated Quantitative and Qualitative Findings

RQ	Quantitative evidence	Qualitative evidence	Integrated interpretation
RQ1	Teachers' perception M = 3.85; students reported positive ease/accessibility.	GC was described as accessible, convenient, and familiar for basic functions.	GC was generally accepted and functionally accessible.
RQ2	Teachers' use M = 3.45; students' perceived overall writing improvement M = 2.60.	Use centered on assignment distribution/submission; collaboration, feedback, and revision were less consistent.	Functional adoption was stronger than deep pedagogical integration.
RQ3	Teacher challenges (M = 3.81); training and institutional support (M = 2.92) were areas of concern.	Connectivity, device access, digital literacy, training, and institutional support constrained use.	Contextual and professional conditions shaped integration.

The integrated findings indicate a consistent pattern across the three research questions: GC was generally accepted and functionally accessible, but its use was more strongly oriented toward assignment management than toward collaborative, feedback-oriented, and process-based writing. Contextual and professional conditions further shaped the depth of integration

The most important finding is the discrepancy between generally positive perceptions of GC and comparatively limited evidence of deeper pedagogical integration. Teachers reported positive perceptions (M = 3.85), and students generally found the platform accessible and easy to use. This pattern is consistent with recent EFL research reporting favorable perceptions of Google Classroom in writing contexts (Indrayani & Sukaesih, 2022; Lin, 2021; Pham & Nguyen, 2024; Tohamba et al., 2024). However, the present study extends this literature by distinguishing acceptance from the depth of instructional use. Within TAM, perceived usefulness and ease of use help explain why teachers and students accept GC. Yet acceptance alone cannot explain whether teachers subsequently exploit its affordances for collaboration, feedback, and process writing. Recent research on teacher digital competence similarly indicates that pedagogical and professional competence are important conditions for effective technology use (Antonietti et al., 2022; Tzafilkou et al., 2023). The present findings therefore suggest that TAM is particularly useful for explaining the acceptance stage, while Social Constructivism and CSCL provide additional explanatory power for the pedagogical stage.

The quantitative and qualitative evidence indicates that GC was used more strongly for administrative and organizational purposes than for the complete writing process. Teachers reported varied assignment use (M = 4.50), while observations and interviews showed that distributing materials, posting tasks, managing deadlines, and collecting work dominated classroom practice. This contrasts with studies in which GC was embedded in more deliberate

writing pedagogies. Lin (2021) used GC to structure an online composition course, while Sime et al. (2024) embedded GC within blended writing involving collaborative writing, peer interaction, scaffolding, resources, face-to-face support, and feedback. Albesher (2024) found positive effects of Google-mediated collaborative writing on global and local writing features. Kılınç and Yüksel (2024) likewise demonstrated the potential of online collaborative writing for EFL writing. The contrast suggests that GC itself is not inherently administrative or pedagogical; its role depends on instructional design. In the present context, the platform was available and accepted, but its collaborative and process-writing affordances were not consistently activated.

Teachers reported relatively favorable perceptions of assessment and feedback, but students' perceptions of helpful feedback and writing improvement were more modest. This discrepancy suggests that providing comments through a platform is not equivalent to establishing a sustained feedback–revision cycle. Lv et al. (2021), in a meta-analysis of 17 studies involving 1,568 learners, found an overall positive effect of online feedback on EFL/ESL writing, while also identifying variation by feedback source and task characteristics. Technology-enhanced feedback research further indicates that peer and teacher feedback can have different effects on collaborative writing, engagement, and critical-thinking tendencies (Zou et al., 2023). Guo et al. (2024) showed that effective collaborative peer feedback involves several social processes and requires students to develop collaboration skills. Nappu et al. (2025) reported positive effects of peer feedback through Google Classroom on aspects of EFL essay quality. The present findings therefore suggest that the limitation lies less in the existence of digital feedback functions than in the extent to which feedback is integrated into interaction, revision, and learner response.

The limited evidence of peer collaboration and collaborative drafting is theoretically important. Social Constructivism conceptualizes learning as socially mediated, while CSCL emphasizes technology-supported interaction and shared knowledge construction. In the present study, however, students often completed tasks individually before uploading them, and sustained collaborative drafting or peer interaction was comparatively limited. This finding is consistent with collaborative-writing research showing that collaboration must be deliberately structured. Bueno-Alastuey et al. (2022) found effects of collaborative writing and peer feedback on later individual writing performance, while Kılınç and Yüksel (2024) demonstrated the potential of online collaborative writing for EFL writing performance. Thus, the presence of a collaborative-capable platform does not automatically create collaborative learning. Teachers need to design roles, tasks, interaction sequences, peer review procedures, and revision cycles.

The training and institutional support construct was among the weaker areas in the teacher data (M = 2.92), while interview evidence pointed to limited professional development. This suggests that teachers may require more structured preparation to move beyond basic platform use toward pedagogically purposeful integration of GC into writing instruction. The finding is consistent with research emphasizing the importance of teachers' digital competence and pedagogical knowledge for meaningful technology integration (Suzer & Koc, 2024; Tzafilkou et al., 2023; Wohlfart & Wagner, 2023). Teachers may therefore be able to operate GC without being equally prepared to teach writing through GC. Technical competence can support posting assignments and entering grades; digital pedagogical competence is needed to design collaborative drafting, peer feedback, revision, formative assessment, and interactive writing activities. Professional development should consequently move beyond platform operation toward technology-enhanced writing pedagogy.

Teachers and students identified unreliable connectivity, device access, and technical difficulties as continuing barriers. These findings are consistent with Bati and Workneh (2021) and Demissie et al. (2022), who identify infrastructural, institutional, and professional conditions as important influences on technology integration in Ethiopian schools. Recent research likewise emphasizes that teachers' digital competence and institutional conditions jointly shape technology integration (Wohlfart & Wagner, 2023; Verdú-Pina et al., 2024; Suzer & Koc, 2024). The findings therefore support a

contextual interpretation: technology acceptance operates within infrastructural and institutional conditions. Even when teachers perceive GC as useful and students can navigate it, unreliable connectivity or unequal device access can disrupt sustained digital writing activities. The transition from acceptance to pedagogical integration is consequently conditional rather than automatic.

The findings suggest a complementary interpretation of the three theoretical perspectives. TAM explains why participants generally accepted GC; Social Constructivism explains why interaction, scaffolding, feedback, and revision are important to writing development; and CSCL explains how digital environments can support collaboration and shared knowledge construction. The integrated framework therefore suggests a progression from technology acceptance to functional adoption and, potentially, to pedagogical integration. The present evidence indicates that this progression is not automatic. Teacher competence, instructional design, learner participation, technological access, and institutional support influence whether accepted technology becomes pedagogically transformative. The principal theoretical proposition emerging from the study is that positive technology acceptance is a necessary but insufficient condition for pedagogical transformation in technology-supported EFL writing.

The findings suggest several implications for EFL writing instruction using Google Classroom. Teachers may benefit from professional development focused on process-oriented digital writing pedagogy, particularly the use of iterative drafting, formative feedback, peer interaction, and collaborative writing. Schools should provide adequate technical resources, reliable connectivity, and institutional support to facilitate sustained use of Google Classroom. In addition, teachers should move beyond using Google Classroom primarily for assignment distribution and submission and make greater use of its available functions to support feedback, revision, interaction, and learner engagement. This study has several limitations. The study was conducted in one private secondary school in Addis Ababa, which limits the transferability of the findings to other school contexts. The teacher sample was small (N = 4), and therefore the quantitative findings are descriptive rather than inferential. In addition, the study examined participants' perceptions and experiences rather than directly measuring changes in students' writing performance. The observation period was also limited, and the findings may not capture longer-term patterns of Google Classroom integration. Finally, qualitative coding was conducted by the researcher, although the study was conducted under doctoral supervision.

Future research should examine Google Classroom integration across multiple schools and with larger and more diverse samples to enhance the transferability of findings. Longitudinal and intervention-based studies could investigate whether sustained use of Google Classroom, particularly for feedback, revision, peer interaction, and collaborative writing, leads to measurable improvements in students' writing performance. Further research could also examine how teacher digital pedagogical competence and professional development influence the depth of technology integration. Comparative studies across public and private schools, as well as across different educational contexts, could provide additional evidence about the institutional and technological conditions that support meaningful technology-enhanced EFL writing instruction.

Conclusion

This study investigated teachers' and students' perceptions and experiences of using Google Classroom for EFL writing instruction in a private secondary school in Addis Ababa, Ethiopia. Across questionnaire, observation, and interview evidence, participants generally perceived GC as accessible, convenient, and useful. However, its instructional use was more strongly associated with assignment distribution, resource sharing, task management, and submission than with sustained collaborative, feedback-oriented, and process-based writing. The central contribution of the study is its demonstration that positive technology acceptance does not necessarily translate into deep pedagogical integration. Teachers and students accepted GC, but the platform's potential for collaborative drafting, peer interaction, feedback-mediated revision, and process writing was only partially realized. The findings further indicate that teacher digital pedagogical competence, instructional design, technological access, learner participation, and

institutional support shape the transition from acceptance to meaningful integration.

The study does not establish that Google Classroom improved students' actual writing performance because writing achievement was not directly assessed. Rather, students expressed relatively modest perceptions of GC's contribution to their writing development. This distinction is important for interpreting the findings and defines a clear direction for future research using direct measures of writing performance. Overall, the study suggests that the educational value of Google Classroom lies not simply in making writing activities digital but in using the platform to redesign how writing is taught, practiced, reviewed, revised, and discussed. For Ethiopian secondary EFL contexts, meaningful integration therefore requires a combination of technology acceptance, pedagogical competence, collaborative instructional design, reliable infrastructure, and institutional support.

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