Vol. (11), No. (2); 2025
ISSN : 2355-2069 (Print)
ISSN : 2656-5765 (Online)
Published by UIN Fatmawati Sukarno Bengkulu

FROM PROJECTS TO PORTFOLIOS: IMPLEMENTING GOOGLE SITES TO FOSTER AUTONOMOUS LEARNING IN ESP-BASED ACCOUNTING COURSES

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DOI : http://dx.doi.org/10.29300/ling.v11i2.8989

Received: August 28th 2025 Accepted: December 20th 2025 Published: December 27th 2025

Abstract

In the digital era of higher education, fostering learner autonomy through technology-enhanced pedagogy has become increasingly important, particularly in English for Specific Purposes (ESP) courses that demand contextualized and self-directed learning. Although e-portfolios have been widely implemented in general language education, their pedagogical role in ESP contexts—especially in English for Accounting—remains underexplored, and empirical evidence linking their use to learner autonomy dimensions is still limited. This study aims to investigate the use of Google Sites–based e-portfolios in promoting autonomous learning among students enrolled in an English for Accounting course at an Indonesian university. Employing a mixed-methods design, data were collected from a questionnaire administered to 35 undergraduate students, complemented by portfolio analysis and qualitative feedback. The quantitative data were analyzed descriptively, while qualitative data were examined through thematic analysis. The findings indicate that frequent use of Google Sites is associated with increased student motivation, improved accounting-related vocabulary, and enhanced reflective learning practices. More importantly, the platform supported key dimensions of learner autonomy, including self-regulation, goal-setting, and learning ownership. Despite minor technical challenges, students reported generally positive learning experiences. This study concludes that Google Sites–based e-portfolios represent an effective pedagogical tool for fostering learner autonomy in ESP instruction and offers practical implications for technology integration in discipline-specific language learning.

Keywords: Learner Autonomy; ESP (English for Specific Purposes); Google Sites; E-Portfolios; English for Accounting

INTRODUCTION

In the dynamic realm of higher education, the necessity for 21st-century competencies—such as digital literacy, self-regulation, and independent learning—has become increasingly pivotal to curriculum development and pedagogical practices (Dilekçi & Karatay, 2023; González-Pérez & Ramírez-Montoya, 2022; Haug & Mork, 2021; Martinez, 2022). The conventional teacher-centered model, characterized by passive information absorption, is progressively being supplanted by active, learner-centered approaches that enable students to assume responsibility for their educational journeys (Ghafar, 2023; Oyelana et al., 2022). This transformation is especially apparent in language learning, where the incorporation of technology has facilitated more adaptable, individualized, and contemplative forms of engagement. As the focus on lifelong learning and employability intensifies, higher education institutions are progressively integrating digital tools that promote autonomous learning, facilitate authentic assessment, and offer avenues for continuous learner reflection (Alenezi, 2023; Alenezi et al., 2023).

In this broader environment, English for Specific Purposes (ESP) has evolved as a crucial sub-discipline of English language instruction that directly addresses the professional

and academic requirements of learners (Ansari et al., 2024; Liu & Hu, 2021; Yang et al., 2023). ESP courses, particularly those designed for Accounting, Business, and other vocational fields, seek to provide students with both linguistic proficiency and specialized communication abilities that correspond with professional environments (Handayani et al., 2024; Yashchuk, 2024). In contrast to mainstream English training, English for Specific Purposes (ESP) is contextually focused, purpose-driven, and frequently task-oriented, necessitating teaching methods that replicate the tasks learners are expected to face in their prospective professions. Consequently, evaluation in English for Specific Purposes (ESP) has progressively transitioned from grammar exercises and standardized assessments to more comprehensive, process-oriented methods of evaluation, such as project work, portfolios, and digital artifacts (Read, 2022).

Digital portfolios, or e-portfolios, have garnered considerable interest in recent years as a method for integrating evaluation, reflection, and learner autonomy (Dou et al., 2023; Mogas et al., 2023; Walland & Shaw, 2022; Yadav, 2024). E-portfolios are broadly defined as curated collections of student work that showcase progress, competences, and achievements across time. They correspond with constructivist learning theories, which prioritize knowledge building, learner agency, and contextually rich experiences. E-portfolios in language learning environments facilitate reflective practice, offer avenues for formative feedback, and enable students to chronicle their language progression through multimodal means (Lam, 2024; Yadav, 2024). The advantages of e-portfolio integration encompass heightened learner motivation, intensified engagement, and augmented options for self-assessment and peer cooperation.

Google Sites has become a user-friendly, accessible, and collaborative platform for constructing digital portfolios, enabling the production of e-portfolios with minimum technological obstacles (Bozorgian et al., 2024; Lam, 2023). Its connection with other Google Workspace applications, including Google Docs, Slides, and Drive, enables students to present textual assignments, multimedia projects, and presentations in a structured and visually appealing manner (Akcil et al., 2021; Lake, 2022; Sebastián-Rivera et al., 2025). Google Sites provides instructors with a versatile tool for assessing student work, fostering iterative learning and reflection. Furthermore, its cloud-based architecture enables students to view, update, and share their portfolios at any time, cultivating a sense of ownership over their educational experiences.

Despite the recognized pedagogical benefits of e-portfolios, further investigation into their implementation in English for Specific Purposes (ESP) contexts is necessary, especially within Accounting-oriented English courses in non-native English-speaking nations (Chang & Kabilan, 2024; Crisol Moya et al., 2021; Modise & Mudau, 2023; Walland & Shaw, 2022; Yang et al., 2023). In Indonesian higher education, English for Accounting is a mandatory course for students in economics and business faculties (Amalia & von Korflesch, 2021; Handayani et al., 2024; Irsyadillah & Bayou, 2022; Muhammad & Nugraheni, 2022). Nevertheless, education in these courses frequently stays confined to textbooks and examinations, with minimal incorporation of digital technologies that promote active learning and student independence. Despite students' increasing digital proficiency and familiarity with online platforms, the application of e-portfolios—particularly via technologies such as Google Sites—continues to be inadequately studied and underused in this teaching area (McGuire et al., 2023; O'Rae et al., 2025).

Moreover, the current literature regarding e-portfolio utilization in English for Specific Purposes (ESP) courses primarily emphasizes broader fields, such as English for Engineering or Business English, thereby creating a deficiency in comprehending the influence of these tools on language acquisition within Accounting-specific contexts (Ngo et al., 2024; Rezadoust Siah Khaleh Sar et al., 2024). Although certain studies have emphasized the motivational and

metacognitive advantages of portfolio-based learning, limited research has investigated the convergence of task-based English for Specific Purposes pedagogy, digital platforms such as Google Sites, and the cultivation of autonomous learning behaviors in students. The knowledge gap is notably important due to the growing focus on student-centered learning and technological integration in higher education curricula throughout Southeast Asia.

A further drawback in the current research is the absence of empirical data from the students' views regarding their perceptions of the utility, usability, and influence of Google Sites-based portfolios on their learning. While prior research has examined the teacher's role in the design and evaluation of portfolios, there is a paucity of studies investigating students' perspectives on their experiences with these tools, especially concerning the acquisition of accounting terminology, the execution of project tasks, and the reflection on their linguistic development. Comprehending students' perceptions is essential for creating more adaptive, inclusive, and pedagogically effective digital portfolio interventions.

This study seeks to fill existing gaps by examining the use of Google Sites as a platform for e-portfolios in an English for Accounting course at an Indonesian institution. This study utilizes student feedback and adheres to the principles of autonomous learning and task-based language teaching to investigate the use of Google Sites as a dynamic instrument for promoting self-directed learning and reflective language practice, rather than merely serving as a digital repository for student projects. The study aims to address critical inquiries regarding students' usage frequency, perceived usability, motivational influence, and the educational advantages of e-portfolio integration in an English for Specific Purposes course.

The study employs a mixed-methods approach to investigate (1) how students utilize Google Sites for managing and presenting their Accounting English assignments, (2) the benefits and challenges they associate with its use, and (3) the extent to which Google Sites fosters their development as autonomous learners. This study offers useful insights for educators, curriculum designers, and policy-makers aiming to improve ESP training using technology-enhanced learning environments by situating the research in a localized yet scalable instructional setting. It also enhances the existing knowledge on digital pedagogy in language education, offering practical implications for augmenting learner engagement, evaluation methodologies, and the overall quality of English for Specific Purposes instruction in the digital era.

MATERIALS AND METHOD

Research Design

This study used mixed-methods to collect and analyze quantitative and qualitative data. We chose this design to study how Google Sites e-portfolios affect autonomous learning in English for Accounting courses. Survey responses yielded quantitative data on students' use, perceived ease, and motivational influence. Qualitative data from open-ended replies and portfolio content illuminated unique learning experiences and reflective behaviors. By combining numerical trends with narrative feedback, the study identified patterns and captured student involvement nuances. This exploratory-descriptive study examines adding Google Sites to an ESP-based accounting course in Indonesia, a largely unstudied educational intervention. This architecture enabled discovery and comprehensive description of observed events.

Context and Participants

The study took place in an Indonesian private university's English for Accounting course. The English for Specific Purposes (ESP) program helps accounting students develop language and communication skills. In their third or fourth semester, 35 undergraduates studying in accounting or related fields at the Faculty of Economics and Business participated.

Participants were 18–21 years old, typical of early-stage university students. The course combined theoretical and task-based instruction with project work and digital submissions. We selected participants who have used Google Sites for portfolio construction as part of their coursework utilizing purposive sampling to ensure relevant and contextually grounded data.

Table 1. Participant Data Summary

Gender	Number of Students_ x	Age Range	Number of Students_ y	Semester	Number of Students_ x	Major	Number of Students_ y
Male	17	18-19	20	3rd	19	Accounting	28
Male	17	18-19	20	3rd	19	Related Disciplines	7
Male	17	18-19	20	4th	16	Accounting	28
Male	17	18-19	20	4th	16	Related Disciplines	7
Male	17	20-21	12	3rd	19	Accounting	28
Male	17	20-21	12	3rd	19	Related Disciplines	7
Male	17	20-21	12	4th	16	Accounting	28
Male	17	20-21	12	4th	16	Related Disciplines	7
Male	17	21-22	3	3rd	19	Accounting	28
Male	17	21-22	3	3rd	19	Related Disciplines	7
Male	17	21-22	3	4th	16	Accounting	28
Male	17	21-22	3	4th	16	Related Disciplines	7
Female	18	18-19	20	3rd	19	Accounting	28
Female	18	18-19	20	3rd	19	Related Disciplines	7
Female	18	18-19	20	4th	16	Accounting	28
Female	18	18-19	20	4th	16	Related Disciplines	7
Female	18	20-21	12	3rd	19	Accounting	28
Female	18	20-21	12	3rd	19	Related Disciplines	7
Female	18	20-21	12	4th	16	Accounting	28
Female	18	20-21	12	4th	16	Related Disciplines	7
Female	18	21-22	3	3rd	19	Accounting	28
Female	18	21-22	3	3rd	19	Related Disciplines	7
Female	18	21-22	3	4th	16	Accounting	28
Female	18	21-22	3	4th	16	Related Disciplines	7

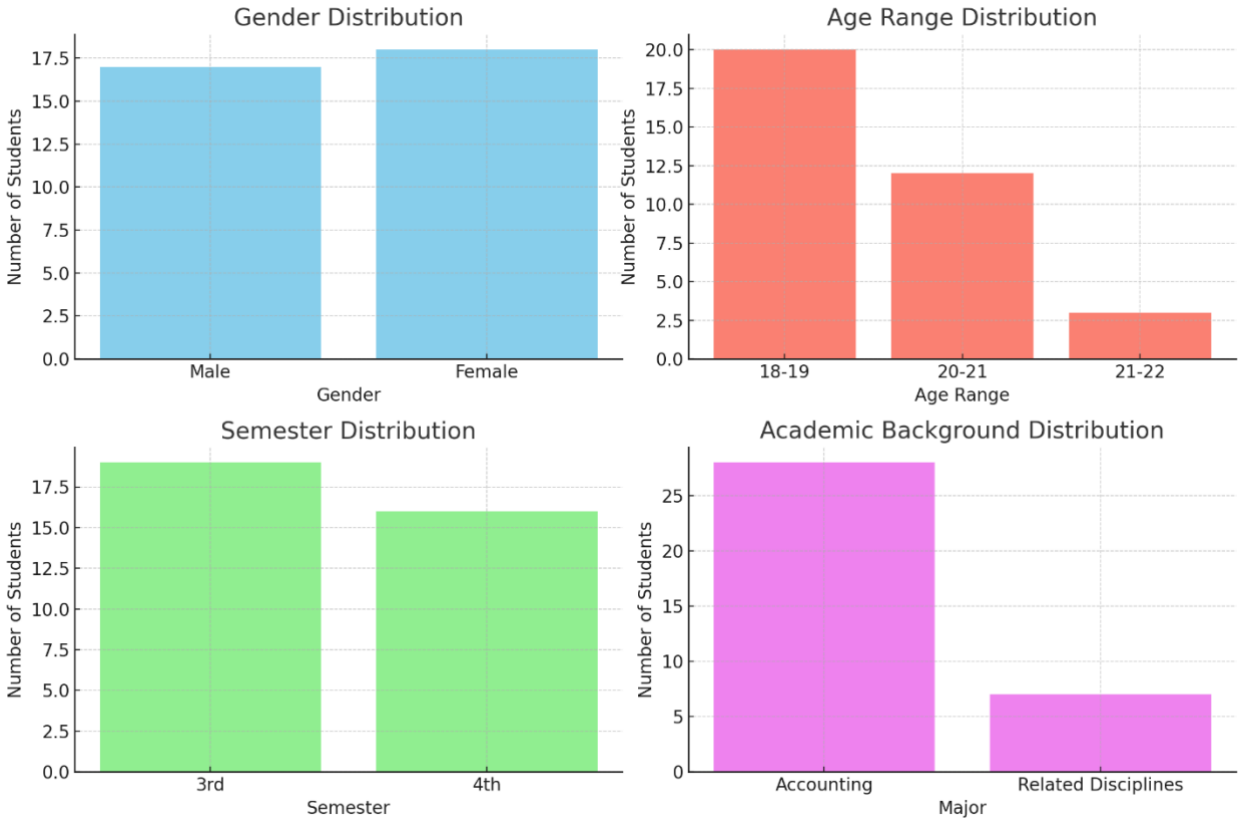

Figure 1. Background Distribution

Table 1 and Figure 1 collectively provide a detailed demographic profile of the study participants, encompassing gender, age range, semester, and academic background. The statistics indicate an equitable gender distribution, with 18 female and 17 male students, primarily aged 18 to 21 years, which is indicative of early undergraduate traits. The majority of participants were in their third and fourth semesters, signifying their position at intermediate levels of ESP learning. Moreover, the predominant number of students (28 out of 35) concentrated in Accounting, so guaranteeing a robust alignment between the course material, learning activities, and students' academic requirements. The demographic makeup enhances the contextual relevance and credibility of the study environment.

Instruments and Data Collection

Data collection used quantitative and qualitative methods to understand students' Google Sites experiences. The course ended with a Google Form survey with Likert-scale, multiple-choice, and open-ended questions. Survey topics included Google Sites usage frequency, perceived ease of use, motivation to learn, benefits (e.g., vocabulary improvement, reflective abilities), and suggestions for improvement. Other qualitative artifacts were students' Google Sites e-portfolios and the survey. The examination examined content accuracy, structure, accounting-specific language, and reflective entry depth. These portfolios showed how students used ESP in their projects and documented their learning. Informal interviews and observations, though optional, helped interpret findings, notably students' digital involvement and autonomous learning development.

Survey Instrument Validation and Reliability

A pilot testing technique was conducted prior to the primary data collection to assess the validity and reliability of the survey instrument. The questionnaire was modified from prior

research on learner autonomy and e-portfolio utilization in ESP settings and subsequently tailored for English for Accounting students. The pilot test comprised 10 children who were excluded from the final sample nevertheless possessed comparable academic traits. The survey comprised 24 items, categorized into four constructs:

1. frequency of Google Sites use (6 items),
2. perceived ease of use (6 items),
3. motivational impact (6 items), and
4. perceived learning benefits and challenges (6 items). All closed-ended items employed a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Reliability analysis was conducted with Cronbach's alpha to assess internal consistency. The findings demonstrated adequate reliability for all constructs, with alpha coefficients between 0.78 and 0.86, surpassing the widely recognized criterion of 0.70. The results validate that the survey instrument was reliable and appropriate for assessing students' impressions of Google Sites–based e-portfolios.

Qualitative Data Analysis Procedures

Qualitative data were collected from open-ended survey responses, students' Google Sites e-portfolios, and informal interviews and observations. A thematic analysis method was utilized to carefully examine the qualitative data. The analysis comprised three phases of coding:

1. Open coding, where initial codes were generated from recurring words, phrases, and ideas related to learner autonomy, motivation, reflection, and ESP language use;
2. Axial coding, where related codes were grouped into broader categories such as digital engagement, vocabulary development, reflective learning, and technical challenges;
3. Selective coding, where core themes were identified to explain students' experiences with Google Sites–based portfolios.

Inter-coder agreement was implemented to augment trustworthiness. Two researchers independently analyzed roughly 30% of the qualitative data and resolved conflicts through discussion until consensus was achieved. This procedure facilitated the maintenance of coding uniformity and analytical precision.

Trustworthiness and Credibility Strategies

Various tactics were implemented to enhance the credibility of the qualitative findings. Data triangulation was accomplished by contrasting survey responses, portfolio contents, interview notes, and observational records. The study team engaged in peer debriefing to examine emerging themes and interpretations. Moreover, comprehensive descriptions of student experiences were included to augment the transparency and reliability of the analysis.

Interviews and Observations

Informal interviews and classroom observations were performed to augment the survey and portfolio data. The interviews were semi-structured and concentrated on students' experiences with Google Sites, perceived obstacles, and self-directed learning practices. Observations were conducted during portfolio construction sessions to record student engagement, interaction with digital tools, and self-directed learning behaviors. Despite the absence of quantitative analysis, these qualitative data were essential for contextualizing and comprehending the primary findings.

Learning Materials and Tools

Google Sites was chosen as the e-portfolio platform because of its accessibility, seamless interaction with other Google Workspace applications, and user-friendly interface that facilitates autonomous study. Students utilized the platform to organize and display diverse activities, including project reports, vocabulary enhancement exercises, and reflective writing pertinent to accounting situations. The course utilized ESP-oriented learning resources specifically designed for the linguistic and communicative requirements of accounting students, incorporating genuine texts, case studies, and task-oriented tasks. These activities were explicitly crafted to foster autonomous learning, stimulate self-reflection, and assist students in linking English language application to their prospective professional positions.

Procedure and Data Analysis

The research was executed in three stages: pre-implementation, implementation, and post-implementation. In the pre-implementation phase, students were instructed on the capability of Google Sites, portfolio objectives, and reflective obligations. During the implementation phase, students submitted weekly English for Accounting assignments, comprising project work, vocabulary exercises, and reflective entries, while instructors offered formative comments. During the post-implementation phase, students filled out a Google Form survey to assess their learning experiences. The data analysis utilized a mixed-methods approach, incorporating descriptive statistics for survey responses and thematic analysis for qualitative data from open-ended responses and portfolio content, uncovering patterns of engagement, motivation, and the growth of learner autonomy.

Ethical Considerations

Ethical norms were rigorously adhered to during the research process. All student participants granted informed consent after receiving explicit information regarding the study's goal, procedures, and data utilization. To safeguard privacy, participants' identities remained anonymous, and their responses were handled with utmost confidentiality. No personally identifying information was revealed in any section of the research report. Institutional approval was secured as necessary to perform the study within the academic environment. Participation was completely optional, and students were made aware of their right to withdraw at any point during the study without facing any academic repercussions.

RESULT AND DISCUSSION

RESULTS

Students' Frequency of Google Sites Use

The statistics indicated diverse trends in students' utilization of Google Sites during the course. According to the survey's descriptive statistics, around 45% of students reported using Google Sites "very often," 40% indicated "often," and only 15% utilized the site "occasionally." The results indicate that most students regularly utilized the e-portfolio platform in their learning practices. A favorable link was observed between higher usage frequency and enhanced motivation to learn, in comparison to their replies about motivation and engagement. Students who frequently utilized the platform were more inclined to express increased engagement with course material and a heightened sense of accountability for their own education. They exhibited enhanced initiative in revising their portfolios and fulfilling reflective assignments. In contrast, individuals who utilized the platform infrequently perceived less advantages and exhibited diminished participation in independent learning activities. This tendency reinforces the notion that regular engagement with digital learning platforms, such as Google Sites, can enhance learner autonomy and motivation, especially in

task-oriented English for Specific Purposes (ESP) contexts where self-regulation and independent study practices are crucial for achievement.

Table 2. Google Sites Usage Frequency

Frequency	Number of Students
Very Often	16
Often	14
Rarely	5

Table 2 clearly shows students' Google Sites usage frequency. It divides responses into Very Often (16 students), Often (14 students), and Rarely (5 students). This distribution demonstrates that over 85% of participants used the platform regularly. Frequent users were more introspective, prompt in submitting assignments, and proactive in navigating the digital platform, according to qualitative observations. In ESP classrooms, frequent digital tool exposure promotes student motivation, engagement, and independent learning.

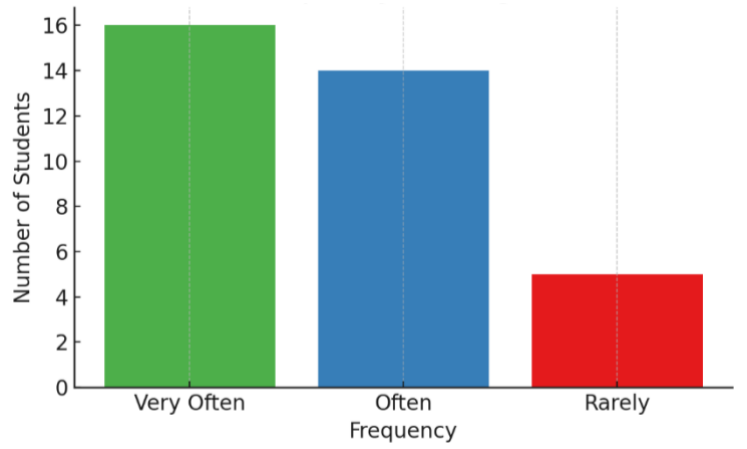

Figure 2. Student Frequency of Google Sites Use

Figure 2 shows how often English for Accounting students accessed Google Sites. Many students (16 out of 35) used the platform frequently, demonstrating great digital engagement. Another 14 pupils used it frequently, while 5 used it rarely. This pattern shows that most users include the site into their weekly learning habits. The association with survey responses implies that frequent platform users were more motivated and autonomous learners.

Linking Google Sites Use to Learner Autonomy Dimensions

The data were further investigated by investigating the correlation between students' frequency of Google Sites usage and essential aspects of learner autonomy, including self-regulation, goal-setting, reflective learning, and ownership of learning. A straightforward cross-tabulation analysis was performed to compare usage frequency with students' stated motivation and reflective involvement.. As shown in Table 3, students who reported using Google Sites *very often* demonstrated higher levels of motivation and reflective behavior compared to those who used the platform *occasionally*.

Table 3. Cross-Tabulation of Google Sites Usage and Learner Autonomy Indicators

Usage Frequency	High Motivation	Strong Reflection	Low Autonomy Indicators
Very Often (n=16)	13	11	2

Often (n=14)	11	7	3
Rarely (n=5)	1	1	3

The cross-tabulation research demonstrates a distinct correlation between the frequency of Google Sites utilization and the emergence of learner autonomy markers. Students who indicated frequent usage of the platform exhibited elevated motivation and enhanced reflective engagement, which are essential indicators of self-regulation and ownership of learning. Conversely, students who infrequently utilized Google Sites exhibited diminished autonomy indicators, characterized by restricted reflection and decreased participation with learning activities. This trend indicates that continuous engagement with the e-portfolio platform is essential for facilitating goal-setting, self-monitoring, and accountability in learning. The findings suggest that learner autonomy is enhanced through the regular and purposeful application of Google Sites in English for Specific Purposes learning environments.

Perceived Ease of Use

The majority of students found Google Sites convenient to use for e-portfolio management. According to Likert scale replies, 60% of users found the platform “very easy” to use, 30% “easy”, and 10% “moderately difficult”. Google Sites' straightforward UI and seamless connection with other Google Workspace features helped students unfamiliar with e-portfolio systems overcome technological barriers.

Qualitative remarks corroborated the quantitative findings, emphasizing students' contentment with the platform's intuitive design and drag-and-drop capability. One student noted, *“It was easy to organize my projects and reflect on what I learned each week.”* Another stated, *“At first it seemed complicated, but after the tutorial, I found it very simple to manage.”* Students valued the capability to personalize pages, integrate photographs and videos, and view their portfolios via mobile devices. Nevertheless, few students reported modest difficulties, including restricted design alternatives and initial perplexity throughout the setup phase. Notwithstanding these factors, the prevailing view highlighted the platform's practicality and user-friendliness, which favorably influenced student engagement and autonomous learning during the ESP course.

Table 4. Perceived Ease of Use

Ease Level	Number of Students
Very Easy	21
Easy	10
Moderately Difficult	4

Table 4 shows students' Google Sites self-evaluations. It shows that 31 students rated the program “very easy” or “easy,” indicating good usability. Students liked Google Sites' drag-and-drop design and connectivity with other Google products for content organization. Some (4 students) found the initial setup challenging, especially altering the layout or embedding multimedia. Most were able to overcome these minor barriers with simple instruction, proving the platform's accessibility and user-friendliness in blended ESP learning.

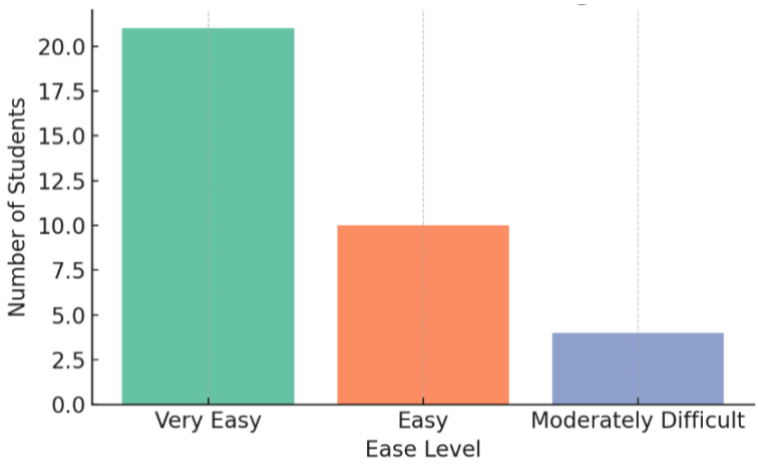

Figure 3. Perceived Ease of Use of Google Sites

Figure 3 shows how students regarded Google Sites' usability. Most students—21 out of 35—considered the platform "very easy" to use, while 10 found it "easy." Only 4 students found it moderately tough. These findings demonstrate the platform's intuitive design, which simplifies navigation and task and reflection uploads. The good distribution shows that most students lacked technological issues, allowing them to focus on content creation and self-reflection, key to independent learning.

Motivational Impact

The incorporation of Google Sites into the English for Accounting course significantly influenced students' motivation, engagement, and involvement in class. Survey responses and reflections indicated that most students exhibited increased enthusiasm for task completion when granted the autonomy to arrange and display their learning in a digital format. Students demonstrated heightened ownership of their work, as the platform enabled them to visibly monitor their progress and evaluate their performance weekly. This sense of accountability fostered increased engagement in class discussions and prompt submission of homework.

A number of students indicated that the capacity to customize their portfolios enhanced the significance and enjoyment of their learning experience. One student commented, *"I was more excited to do the tasks because I could see my growth every week."* The organized yet adaptable framework of Google Sites promoted self-directed learning, motivating students to investigate course material beyond the classroom. The platform integrated creativity with accountability, enhancing students' connection to the subject and reinforcing their independent involvement, in accordance with the fundamental objectives of ESP instruction. The motivational impact was especially apparent in the manner in which students undertook tasks with greater autonomy and a heightened feeling of purpose.

Table 5. Motivational Impact of Google Sites

Motivational Impact	Number of Students
Highly Motivated	18
Motivated	13
Less Motivated	4

Table 5 shows how students assessed Google Sites' motivational impact. Over 88% of participants were moderately to very motivated. Personalization, progress tracking, and inventive course content engagement motivated students. They reported being more motivated

to complete assignments and participate in class. Those who were less motivated cited platform unfamiliarity or preference for traditional forms. The findings suggest that Google Sites can motivate and engage students in project-based ESP instruction.

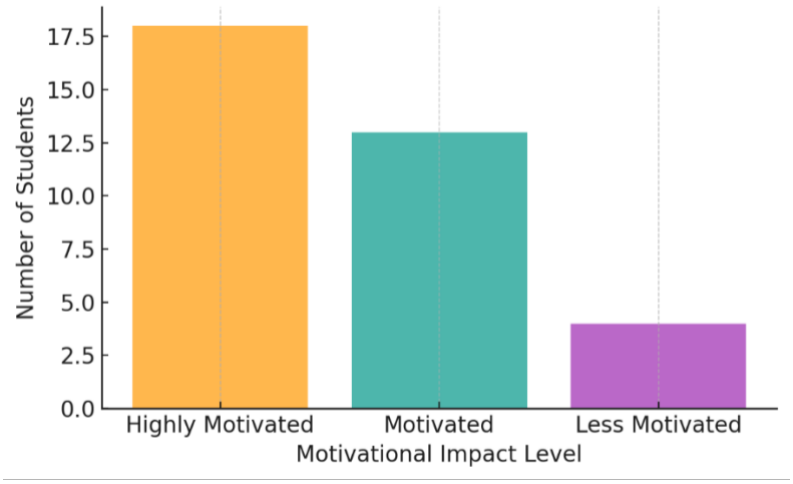

Figure 4. Motivational Impact of Using Google Sites

Figure 4 demonstrates students' self-reported motivation after using Google Sites for ESP homework. In total, 18 pupils felt "highly motivated," 13 felt "motivated," and 4 felt "less motivated." The positive distribution shows that the platform greatly increased students' classwork interest and enthusiasm. Freedom to control their digital portfolios gave them a sense of accomplishment and pride, boosting engagement and initiative. This suggests that digital platforms motivate and empower ESP learners.

Perceived Benefits

In English for Accounting, students saw various benefits to adopting Google Sites as an e-portfolio. Vocabulary improvement was a common benefit. Students improved their receptive and productive language abilities by actively using accounting-specific vocabulary in project submissions and reflective entries. Creating glossaries, reviewing financial documents, and describing procedures in English helped them contextualize and assimilate domain-specific jargon.

Another benefit was better introspection. Google Sites encouraged students to assess their learning achievements and establish goals for improvement. This technique promoted metacognitive awareness, required for autonomous learning. Students felt more aware of their talents and weaknesses, making learning more intentional. The platform also helped document and organize learning. Students liked organizing their work in a way that was easy to access, review, and update. This helped them track academic progress and fostered responsibility and pride in their work. These benefits show how digital portfolios enhance ESP education and encourage long-term learning.

Table 6. Perceived Benefits of Using Google Sites

Perceived Benefits	Number of Students
Vocabulary Development	22
Reflection Skills	18
Documentation & Organization	25

Table 6 shows how students viewed Google Sites' academic benefits. Most users said the program helped them organize and track their learning, showing its long-term academic value. Many students reported increased discipline-specific vocabulary due to portfolio projects that repeated and used accounting topics. Many also reported improved reflection skills from weekly reflections and self-assessments. The results show that Google Sites enhances subject mastery and deeper cognitive and metacognitive learning.

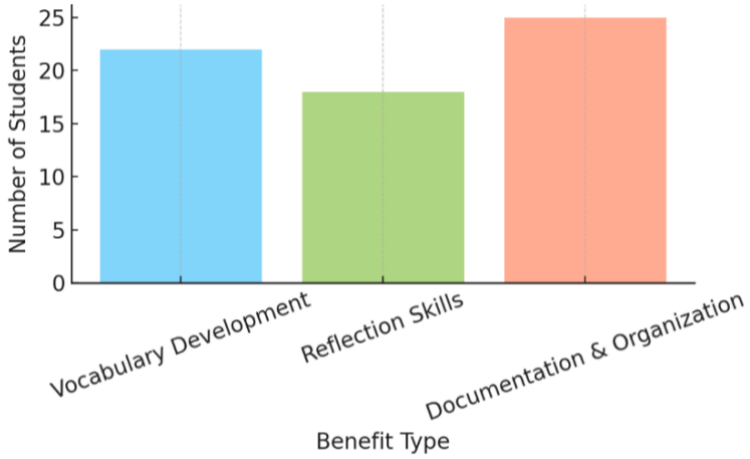

Figure 5. Perceived Benefits of Using Google Sites

In figure 5, students describe the main benefits of using Google Sites in their ESP course. The most common benefit was documentation and organizing, identified by 25 students. Next came vocabulary (22 students) and reflection (18 students). The data demonstrates that the platform's visual and structural characteristics helped students organize and track their learning. Regular accounting activities improved vocabulary acquisition and introspective thinking, which are crucial to autonomous and deliberate learning in ESP.

Challenges and Suggestions

Students had numerous issues with Google Sites integration, but it was mostly effective. Technical issues arose, especially among students without reliable internet or computers. Some mobile users had trouble downloading huge files or accessing multiple pages. These issues occasionally disrupted workflow and demotivated platform use.

Another issue was layout and visual modification. Although Google Sites has a user-friendly interface, some students found its design options limiting or hard to edit. They wanted configurable templates, color palettes, and easier media embedding. The platform is accessible, but this feedback implies it may not suit digitally aware learners' creative needs.

Student recommendations for future implementation were also helpful. These included a more extensive introductory instruction, continuous technical help, and well-organized portfolio examples. Others suggested adding commenting or peer-review capabilities to boost collaboration. Addressing these issues could improve e-portfolio integration and boost ESP course engagement and independence.

Table 7. Challenges and Suggestions

Challenges/Suggestions	Number of Students
Technical Limitations	10
Visual/Layout Issues	8
Need for Tutorial/Support	12

Students reported the main problems and areas for improvement during Google Sites deployment in table 7. Orientation at the start of the course was the top concern, along with extra tutorials or technical help. File uploads and smartphone accessibility were also issues. Some students wanted more configurable and interactive elements due to the platform's visual appeal. Scaffolded support and design flexibility would boost student happiness and facilitate autonomous learning in ESP-based digital environments.

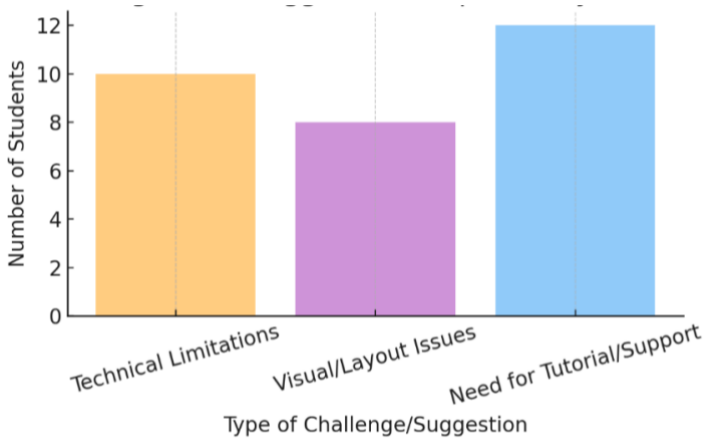

Figure 6. Challenges and Suggestions Reported by Students

Figure 6 shows the primary Google Sites problems students faced. Twelve students picked "Need for Tutorial/Support" as the most common concern, indicating a need for clearer direction and technical support. Ten students mentioned device or network troubles, while eight complained about the platform's visual and structure. These findings imply that while the platform was generally effective, targeted improvements in user onboarding and visual design flexibility could boost learning and student engagement.

Portfolio Content Summary

The Google Sites portfolios showed promising student involvement and learning. Students uploaded weekly assignments, vocabulary tasks, and project-based activities to most portfolios. The portfolios varied, but most followed the template and categorized their content by week or topic. Different students engaged in different levels of reflection. Many observations were brief and descriptive, but others demonstrated metacognitive awareness and personal views on progress, obstacles, and improvement methods. These reflective entries indicate that the portfolio process facilitated task completion and independent learning behaviors including self-monitoring and goal setting. The utilization of ESP-related language, especially accounting words, was a portfolio strength. Students demonstrated comprehension and contextual awareness by appropriately using these words in project descriptions and reflections. Clearer financial ideas and course-relevant technical terms were common. The portfolios showed language improvement, reflective growth, and students' ability to own their learning in an organized, digital context.

Table 8. Portfolio Content Summary

Portfolio Criteria	High Performance (Students)	Moderate Performance (Students)
Task Completion	28	7
Reflection Depth	20	13

ESP Vocabulary Use	26	8

Table 8 shows student Google Sites portfolio performance. Most children completed exercises and used ESP vocabulary correctly, demonstrating good engagement and language learning. Fewer students wrote in-depth reflectively, and 13 needed help. The data suggests that students can manage and organize digital content, but more direction may improve their reflective behaviors. These findings can improve portfolio-based assignments for ESP to promote autonomy, critical thinking, and discipline-specific language use.

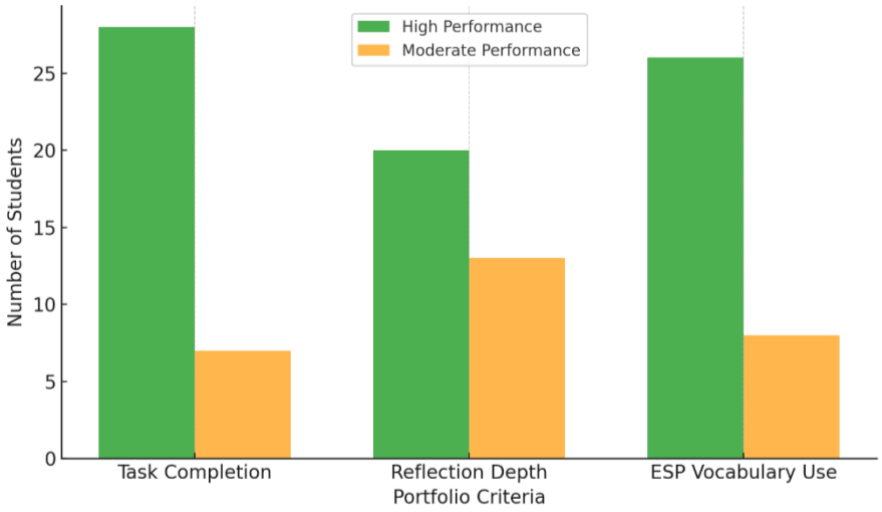

Figure 7. Portfolio Content Analysis

Figure 7 contrasts student performance on task completion, reflection depth, and ESP vocabulary use. Most students (28) completed tasks well, and 26 used ESP-related language well. The depth of reflection varied little, with 20 pupils reflecting deeply and 13 moderately. These results indicate that students consistently completed project assignments and used accounting language. Reflection skills, which require higher-order thinking, may need more scaffolding to be consistent.

DISCUSSION

Google Sites as a Tool for Autonomous Learning

This study's findings robustly endorse the notion that Google Sites e-portfolios can effectively promote learner autonomy in English for Specific Purposes (ESP) training. Utilizing theories of autonomous learning—especially those highlighting self-regulation, reflection, and goal setting—the implementation of Google Sites empowered students to assume greater responsibility over their learning (Gupta et al., 2024; Krutka et al., 2021; Kumar & Sharma, 2021). Students who frequently utilized the platform exhibited enhanced responsibility and initiative, as indicated by their consistent task submissions, insightful reflections, and the systematic organization of their portfolios (Chiu, 2022, 2023; Gopinathan et al., 2022; Silvola et al., 2021).

According to Holec's (1981) definition of learner autonomy as "the ability to take charge of one's own learning," the e-portfolio system offered a platform for students to determine content presentation, track their language development, and contemplate their learning strategies (Ayaz & Gök, 2023; Keshmiri & Mehrparvar, 2023; López-Crespo et al., 2022). These characteristics strongly correspond with the tenets of self-directed learning,

wherein the learner actively engages in the planning, execution, and assessment of their educational experiences.

The digital format of Google Sites provided temporal and spatial flexibility, allowing students to autonomously update and alter their portfolios (Akimana et al., 2025; Chang & Kabilan, 2024). This degree of autonomy beyond mere assignment completion; it enabled students to become thoughtful practitioners, assuming responsibility for their language and cognitive growth. The findings indicates that integrating e-portfolios into ESP training serves as an effective evaluation tool and a pedagogical method that fosters lifelong learning abilities, vital in academic and professional settings.

Technology Integration in ESP Context

The incorporation of Google Sites into the English for Accounting course signifies a notable progression in harmonizing technology-enhanced education with the tenets of English for Specific Purposes (ESP). ESP instruction prioritizes contextual relevance, associating language acquisition with the specific professional or academic requirements of learners (Iswati & Triastuti, 2021; X. Zhang et al., 2023). This study demonstrated that Google Sites functioned as a contextual learning environment, enabling students to utilize accounting terminology in genuine, meaningful work.

Students were prompted to engage in significant language use by generating and curating their own content on Google Sites, aligning with the communicative requirements of the accounting profession (Huang & Xia, 2024; Tetteh et al., 2023). Activities included report preparation, analysis of financial case studies, and utilization of domain-specific terminology facilitated the connection between linguistic input and practical application. This contextual learning approach corresponds with ESP pedagogy, which promotes learning materials and methods that mirror students' target areas.

Furthermore, the incorporation of technology facilitated personalization and differentiation in education. Students were able to arrange their portfolios based on their preferences and learning rate, facilitating more adaptable training (Schmid et al., 2022; J. Zhang & Zhang, 2024). The e-portfolios furnished educators with a clear documentation of development and a method to deliver specific feedback.

The efficacy of Google Sites in this context highlights the educational significance of digital platforms in improving ESP instruction. It illustrates how deliberate technology integration may enhance language acquisition, topic mastery, critical thinking, and professional identity development, rendering learning more interesting, pertinent, and forward-looking.

Student Motivation and Reflective Learning

The study's most significant finding was the beneficial effect of e-portfolio utilization on student motivation and reflective learning. The findings demonstrated a distinct correlation between the regular utilization of Google Sites and heightened student interest, involvement, and ownership in the learning process. When students were afforded the chance to record their progress, customize their learning environment, and observe concrete evidence of their advancement, their drive to fulfill assignments and engage actively in class markedly intensified. This corresponds with educational motivation theories that highlight the significance of autonomy, relevance, and self-efficacy in promoting enduring engagement.

Besides enhancing motivation, the portfolio assignments fostered reflective thinking, an essential cognitive function in profound learning. Weekly reflections necessitated pupils to analyze their performance, establish learning strategies, and examine the results of their endeavors. This facilitated the enhancement of metacognitive awareness and fostered a practice of self-assessment and goal planning (Mamvuto & Kangai, 2023; Pais Marden & Herrington,

2022). As students contemplated their achievements and difficulties, they became increasingly aware of their linguistic development and areas requiring enhancement.

This reflection is especially crucial in ESP contexts, where students need to internalize both linguistic structures and specialized discourse conventions (Wang & Yuan, 2023). The results indicate that Google Sites proficiently facilitates this dual emphasis, enhancing both linguistic competence and professional communication abilities. E-portfolios served as a catalyst for enhanced cognitive engagement and cultivated a learning environment that prioritizes student voice, reflection, and development.

Pedagogical Implications

This study provides ESP instructors with significant educational insights from Google Sites. Continuous monitoring and assessment are major benefits of the platform. Instructors could simply track work completion, learning progression, and support needs using students' portfolios. E-portfolios allowed for a more holistic and formative evaluation of learning outcomes and process.

Giving timely, individualized feedback is another perk. Instructors can write comments on student reflections or contributions and provide personalized advice. This responsiveness improved teacher-student connection and emphasized feedback as a growth tool. Portfolios also demonstrated student learning for self-assessment, peer review, and institutional evaluation.

These benefits make Google Sites a good fit for other ESP courses including English for Business, Tourism, and Engineering. The flexible platform supports diverse curriculum areas and professional language tasks. Instructors should provide an initial orientation, templates or examples, and scaffold reflective techniques throughout the course to optimize success. Google Sites can turn typical ESP classrooms into interactive, learner-centered spaces that encourage digital literacy, autonomy, and language competency, which are crucial in today's academic and professional situations.

Limitations and Future Research

This study has significant limitations, yet its findings are useful. The study involved 35 students from one ESP course, English for Accounting, in a single institution. Thus, the findings may not apply to other educational environments or student demographics. The one-semester study limited the ability to observe long-term impacts of e-portfolio use on learner autonomy and academic performance.

Longitudinal studies of student motivation, language growth, and reflective learning over numerous semesters could solve these shortcomings. To evaluate Google Sites' adaptation and impact in additional ESP areas including English for Nursing, Engineering, and Hospitality, researchers should investigate their use. Findings would be stronger with cross-institutional investigations.

CONCLUSION

This study examined the use of Google Sites–based e-portfolios to foster learner autonomy in an English for Specific Purposes (ESP) course, specifically English for Accounting. The findings indicate that the platform supports key dimensions of learner autonomy, including self-regulation, goal-setting, reflective learning, and learning ownership, while also enhancing student motivation and discipline-specific vocabulary development. Despite minor technical constraints, students reported generally positive learning experiences, suggesting that Google Sites is a pedagogically viable tool for ESP instruction.

To extend the scope of this research, several specific directions for future studies are proposed. First, longitudinal research designs are recommended to examine how sustained use of e-portfolios across multiple semesters influences the development of learner autonomy and academic performance over time. Second, future studies could employ quasi-experimental or comparative designs to compare Google Sites with other e-portfolio platforms or traditional assessment methods in ESP contexts. Third, expanding the participant pool to include students from different ESP domains, such as English for Business, Engineering, or Nursing, would allow for cross-disciplinary comparison and greater generalizability. Finally, qualitative inquiry focusing on instructors' pedagogical decision-making and feedback practices within e-portfolio environments could provide deeper insights into how autonomy-supportive teaching strategies are enacted in technology-enhanced language learning. These directions offer concrete pathways for advancing research on digital portfolios and learner autonomy in ESP education.

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