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Teacher and Student Reflections on a Flipped Learning Model for Engineering Students: A Qualitative Study at a Vietnamese University

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ABSTRACT

This study explores teachers' and students' reflections on a flipped learning model implemented in five English courses for engineering students at a Vietnamese university, targeting CEFR levels A1–B1. The study was conducted as a two-phase qualitative investigation; each phase involved 325 students in 17-week blended courses comprising 60% face-to-face instruction and 40% online self-study. The flipped model integrated listening, speaking, reading, and writing activities across both digital and classroom settings. Students engaged in online practice to prepare for interactive in-person sessions, thereby enabling more effective classroom engagement. Both teachers' and students' reflections addressed key aspects such as course content, workload, learning materials, platform features (e.g., speech recognition and writing tasks), instructional alignment, and teacher support. Based on Phase 1 feedback, the course design was refined and adapted in Phase 2 to strengthen learning outcomes. Evaluations across both phases highlighted high levels of student engagement, stronger coherence between online and face-to-face components, and generally positive perceptions of the flipped approach. This article focuses on teachers' reflections, providing valuable insight into the effectiveness and adaptability of flipped learning within the context of technical higher education. The findings suggest that when carefully aligned, flipped learning can enhance both student participation and instructional effectiveness, offering a viable pedagogical model for English language instruction in specialized academic programs.

Keywords: B-Learning; Action Research; Flipped Learning; English Language Skills; Vietnamese University

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1. Introduction

Vietnamese universities, especially technical institutions, continue to face critical challenges in English language instruction. Despite rising national and institutional expectations, a considerable proportion of engineering students graduate with only A2-level competence in the Common European Framework of Reference for Languages (CEFR). These low proficiency levels are rooted in several factors. Many students enter universities with weak English foundations, particularly those from rural areas where English instruction is minimal and exam-oriented. Moreover, technical students tend to prioritize mathematics and science over language learning throughout their academic journeys.

Institutionally, the curriculum offers limited English exposure, typically only four to eight credits for non-English majors. This makes it difficult for students to meet the new national standards that require a minimum B1 level on the CEFR across all four skills (listening, speaking, reading, and writing) for graduation and postgraduate admission. Consequently, many engineering students struggle to acquire the communicative competencies necessary for academic success and employment in a globalized workforce [1,2].

The university considered in this study exemplifies the following challenges. Each semester, more than 200 English classes are offered to accommodate a large and diverse student body. This scale of instruction places considerable strain on the teaching staff and infrastructure. Instructors face high teaching loads that limit their ability to provide individualized feedback and foster interactive language learning. The frequent use of part-time lecturers further complicates efforts to maintain quality assurance and pedagogical consistency across courses.

Compounding these issues is the heterogeneity of the students' English proficiency. While some students enter with international certificates and solid language skills, more than 50% fall below the A2 level. Placement tests frequently reveal wide gaps in vocabulary, grammar, and functional language use, making class grouping and curriculum alignment highly complex. This variability hinders the implementation of coherent instructional strategies and places further pressure on students and instructors.

National educational policies have recently intensified the demand for English proficiency. Politburo Conclusion 91, implemented in 2024, calls for English to become a second language in Vietnamese schools and universities. In line with this directive, universities are tasked with implementing innovative, technology-driven approaches to English instruction that align with the country's digital transformation agenda. In this context, blended and flipped learning models have gained traction for their potential to foster flexible, student-centered, and scalable instruction [3–7].

The present study adopted a flipped classroom approach within a blended learning (B-learning) framework, drawing on the theories of blended pedagogy [8,9] and self-regulated learning [10,11]. In this model, input-based activities, such as grammar instruction, vocabulary introduction, and receptive skills practice, are delivered online, whereas classroom time is reserved for communicative tasks and collaborative learning. This approach enhances instructional efficiency and aligns with the learner autonomy theory [12,13], which emphasizes the value of students taking active responsibility for their learning through self-study, strategy use, and reflection.

Such models are particularly valuable in technical universities in which classroom time is limited and individualized instruction is challenging. By offloading lower-order learning tasks to online environments, flipped learning enables instructors to focus on in-class interactions, feedback, and skill applications. This not only reduces teacher workload but also supports more meaningful student engagement with language learning, which is essential for long-term proficiency development.

The university's strategic plan (2025–2030) identifies digital transformation and English language enhancement as key priorities. Implementing flipped blended learning courses directly addresses these goals. It helps develop a digitally supported English-using academic ecosystem and prepares students to participate in English-medium technical coursework. Moreover, it reduces the pressure on physical facilities and instructional resources by shifting a portion of learning online.

1.1. Aim of the Study

The aim of this study was to explore teachers' and students' reflections on the implementation of a flipped and blended learning model for English language instruction among engineering students at a Vietnamese university. Specifically, it investigated how both groups experienced

and perceived the design, delivery, and effectiveness of the courses across the two implementation phases. This study focused on learners at the A1–B1 levels on the CEFR and examined how the flipped blended approach supported student engagement, self-directed learning, and instructional adaptation in a real-world EFL teaching context.

1.2. Research Questions

(1) How do EFL teachers reflect on the implementation and effectiveness of flipped and blended learning courses designed for engineering students at a Vietnamese university?

(2) How do engineering students perceive and evaluate their learning experiences of flipped and blended English courses at the same institution?

1.3. Research Gap

Although blended learning and flipped classroom models have been widely studied in language education [1,5], most research has explored them separately. In Vietnam, existing studies on blended learning have focused largely on general implementation or learner perceptions, with limited attention paid to integrated flipped designs. Notably, no empirical studies have examined the combined use of flipped and blended learning in university-level English instruction among engineering students. This study addressed this gap by evaluating a flipped B-learning model at a Vietnamese technical university, contributing new insight into its pedagogical value and alignment with CEFR-based outcomes in a local, underresearched context.

2. Literature Review

2.1. Theoretical Foundations: Flipped and Blended Learning in Language Education

Flipped classrooms and blended learning models are grounded in constructivist pedagogy, which emphasizes active student-centered learning. In flipped learning, foundational content is delivered outside class, often via videos, reading, or other digital media, while class time is reserved for higher-order tasks such as discussion, problem-solving, and collaborative activities [14,15]. This inversion of the traditional instructional model supports deeper engagement with content and shifts the teacher's role from information transmitter to learning facilitator.

Blended learning combines face-to-face instruction with online learning in a purposeful way to enhance flexibility, learner control, and instructional efficiency [8,16]. Both models have been recognized as part of a broader digital pedagogy movement, with blended learning now considered an umbrella concept that includes flipped approaches [5,6]. Global reviews also highlight that blended and flipped learning are central to educational digital transformation agendas promoted by international organizations such as UNESCO, the OECD, and EDEN [1–3]. These reports emphasize learner-centered design, scalable digital ecosystems, and pedagogical innovation aligned with 21st-century skills.

A key theoretical underpinning of these models is Zimmerman's theory [10] of self-regulated learning (SRL), which defines learning as an active, self-directed process involving goal setting, strategic action, and self-monitoring [10]. Flipped and blended models are particularly well suited to promote SRL as they require learners to engage with course content independently before class, reflect on their understanding, and apply knowledge during in-person sessions. Recent research further suggests that SRL models align with international frameworks on lifelong learning and digital competencies [17,18].

Closely related is the notion of learner autonomy (Little, 1991), which refers to students' ability to take responsibility for their learning by planning, monitoring, and evaluating their own progress. Using technology in flipped and blended environments, such as online quizzes, self-paced video lectures, and interactive tasks, offers multiple opportunities for autonomous learning and the development of digital literacy, a critical skill in the 21st century [5,19].

These theoretical perspectives informed the course design of the current study. Students prepared online before face-to-face sessions and were supported in building SRL and autonomy through structured digital tools and teacher facilitation. The goal was to foster both linguistic competence and lifelong learning strategies aligned with the CEFR goals.

2.2. Empirical Evidence on Flipped and Blended Learning in EFL

Numerous empirical studies have demonstrated the effectiveness of flipped and blended learning models in the EFL context. For example, Öztürk and Çakıroğlu [5] examined the integration of self-regulated learning strategies in a flipped classroom and found substantial gains in speaking, reading, writing, and grammar among students in the experimental group. These findings affirm the theoretical claim that flipped learning models foster strategic learning behaviors.

Kostaris et al. [20] reported improved student learning outcomes, motivation, and engagement in flipped environments, and Al-Samarraie et al. [7] synthesized 85 studies and identified consistent positive effects of flipped instruction on learner attitudes, satisfaction, and confidence across disciplines. Similarly, Lo and Hew [21] identified solutions to the challenges of flipped designs, particularly regarding student preparation and workload balance.

In the EFL context, Egbert et al. [22] highlighted the role of flipped learning in addressing the communicative challenges of traditional language instruction. Students benefited from the additional time to practice speaking, review grammatical content through videos, and work collaboratively. Similarly, Wu et al. [23] found that flipped designs enhanced listening and writing skills through multimodal input and peer collaboration.

Studies in Vietnam have also begun to explore blended learning approaches. Holley and Oliver [24] and Sheerah [25] identified increased learner engagement, improved technological confidence, and the development of self-monitoring habits as the outcomes of blended models. However, these studies have generally treated blended learning as a broad instructional strategy without specifying the integration of flipped design or theoretical frameworks, such as SRL.

Thus, while empirical support exists for both the flipped and blended learning models, few studies have explicitly combined these two approaches within a coherent theoretical framework, especially in the context of Vietnamese higher education. Even fewer have addressed the needs of technical students, whose linguistic and cognitive demands differ from those of students in other fields. International syntheses by the ICDE [26] and Zawacki-Richte et al. [27] also note that while flipped/blended learning has gained traction globally, research in Asia and developing contexts remains comparatively limited, highlighting the value of this study.

2.3. Positioning the Present Study

Building on the foundations of constructivist pedagogy, Zimmerman's SRL theory, and learner autonomy, this study implemented a flipped blended learning model tailored to engineering students at a Vietnamese university. It was designed to address persistent challenges such as large class sizes, limited instructional time, and diverse student proficiency levels through structured online preparation and interactive classroom practice.

By situating the flipped learning model within a blended learning environment, the study created conditions that fostered learner autonomy, enhanced self-regulation, and promoted meaningful language use. While the theoretical potential of such models is well documented, this study contributes new empirical insight by evaluating their practical implementation in a specific and under-researched EFL context.

3. Materials and Methods

3.1. Research Design

This study adopted a qualitative evaluation design to examine the implementation of a flipped and blended learning model in English instruction among engineering students at a Vietnamese university. As part of a broader institutional initiative involving placement testing and post-course assessments, this study focused specifically on a qualitative analysis of teachers' and students' reflections collected over two academic years. The study also incorporated elements of action research, as the teaching team iteratively modified the course design based on participant feedback.

3.2. Context and Participants

The study was conducted at the university's language center and involved two cohorts:

- Phase 1 (Year 1): 325 students, divided into 11 classes according to CEFR levels (1 A1 level, 7 A2 level, 3 B1 level), taught by 11 instructors.
- Phase 2 (Year 2): 330 students across similar class dis-

tributions.

The participants voluntarily enrolled in flipped blended courses to improve their English skills. Teachers received training on the flipped classroom approach and digital tools before implementation. These two cohorts represented the full population of students at the university who registered to take English courses at the language center in the given years. In this institutional policy, students who were able to obtain a TOEIC certificate with a minimum score of 500 were exempted from taking English courses. Each year, approximately 330 students—those who did not meet the exemption threshold—enrolled in these courses at the language center. The remaining students either took the exemption test or joined alternative English programs. Consequently, the study involved essentially the entire study population for this type of course, although it does not include students who met the exemption criteria. This explains both the size of the sample and its representativeness within the specific learner group targeted by the intervention.

3.3. Course Design and Implementation

The courses were developed collaboratively by an international educational consultancy and the university's English language instructors. Each course comprised 60% face-to-face instruction (focusing on speaking, writing, and interactional tasks) and 40% online self-study (targeting receptive skills, vocabulary, grammar, and pronunciation).

The materials were aligned with CEFR levels A1–B1 and included interactive videos, speech recognition tools, grammar guides, and test-oriented content. Following Phase 1, several modifications were made based on the feedback, including reducing content complexity, replacing abstract topics with student-relevant themes, adjusting the flipped load and timing, and refining the software feedback mechanisms. In Phase 2, the revised course model was implemented for evaluation.

3.4. Data Collection

Three primary data sources were used:

1. Reflective reports: Teachers documented their evaluations of the course at the end, including teaching content, student engagement, materials, and challenges. The reports were written in Vietnamese and translated into English by two professional translators.
2. Group discussions: Conducted at the end of each course, these student-led discussions captured learner reflections on the course design, online learning tools, classroom activities, and teacher support.
3. Research journals: Journals were maintained by the researcher throughout implementation to record contextual insights and informal observations. The journaling process was conducted continuously over the two-year study. The researcher wrote entries following classroom visits, teacher training workshops, and review meetings, documenting both descriptive notes (e.g., classroom atmosphere, teacher–student interactions, technical challenges) and reflective comments. These journal entries were not treated as standalone findings but were systematically integrated into the qualitative content analysis. Specifically, they were reviewed alongside teacher reports and student discussions to identify recurring patterns, provide contextual clarification, and cross-check emerging codes. In this way, the journals served as a complementary dataset that enhanced triangulation, ensured consistency in coding, and added depth to the interpretation of themes.

3.5. Data Analysis

The data were analyzed using qualitative content analysis, following the procedures of Corbin and Strauss [28] and Zhang and Wildemuth [29]. A deductive coding approach was applied, informed by course design criteria [30,31] and guided by the study's focus on course quality, learner engagement, and instructional design.

An initial coding scheme was developed based on the research focus (e.g., materials, workload, learner engagement, and digital support), and thematic codes were further refined deductively from recurring issues reported in the data sources. The data were manually coded by the researcher, and the coding process was repeated two weeks later to ensure consistency. Member checking was conducted with an experienced PhD colleague to verify theme accuracy, while a domain expert in English language education performed a peer review to enhance trustworthiness.

Table 1 presents the coding scheme used in the analysis, including key themes, categories, and example codes.

Table 1. Coding scheme.

Theme	Category	Example Code
Teaching Materials	Volume and difficulty	"Too much material"; "disjointed topics"; "abstract"
Workload	Classroom time management	"Teaching too fast"; "students can't absorb fast enough"
Student Engagement	Online participation	"Skip class"; "not interested in self-study"
Online-Offline Balance	Content alignment	"Heavy flipped content"; "short class time"
Skill Development	Low proficiency impact	"Need more grammar/speaking practice"
Technological Support	Platform performance	"Voice recognition not accurate"; "lack of progress"
Pedagogical Growth	Teacher learning	"Improved ICT skills"; "better materials design"

Course evaluations were guided by criteria adapted from Tomlinson [19] and Hutchinson and Waters [20].

3.6. Ethical Considerations

This study was approved by the Ethics Board of the Hanoi University. All participants were provided with an information sheet outlining the study objectives, data usage, and confidentiality measures. Written informed consent was obtained from all students, who were assured of their right to withdraw at any point without penalty.

4. Results and Discussions

This section presents the findings from teacher reflective reports, student group discussions, and the researcher's journal entries across the two implementation phases of the flipped and blended learning program. The data were triangulated to ensure credibility. The triangulation process involved cross-validating data from three distinct sources: teacher reflective reports (primary data), student group discussions (secondary data), and the researcher's journal entries (secondary data). By comparing patterns and themes across these datasets, the study enhanced the credibility of the findings and ensured that interpretations were grounded in multiple perspectives.

4.1. Phase 1: Teachers' Evaluation of the Flipped B-Learning Course

Table 2 presents the categories developed through deductive coding of teacher reflective reports (n = 11), triangulated with patterns noted in the researcher's journal during Phase 1 and teacher group discussion (D1). The codes centered on teaching materials, workload, instructional alignment, and learner engagement. Key codes included "Too much material" (GV4), "Disjointed topics" (GV5), "Abstract" (GV11), and "Teaching too fast" (GV9), all pointing to content overload and pacing issues in the flipped model. The column "No. of agree" indicates the number of teachers who reported similar observations for a given theme. This frequency is used to illustrate the extent of consensus among participants rather than as a quantitative measure of effect. The same notation is consistently applied in subsequent tables to reflect the number of teacher reflections or student discussion groups in which each theme appeared.

Reflective reports highlighted content overload and disjointed topics. One teacher explained that lesson plans exceeded available time, forcing teachers to omit or rush through sections. This was consistent with RJ1's observation that students struggled to follow lessons due to excessive material.

Teachers reported that because of the limited class time, they had to cut content: "If possible, it is advisable to increase the offline study time for students to study with teachers; the flipped classroom part can reduce the amount of self-study work for students." Workload concerns were intensified by low student proficiency: "Even the class I taught did not know how to ask Wh/H questions or Yes/no questions; I spent 20 minutes re-teaching and letting students practice." This was coded as "students can't absorb fast enough," highlighting classroom time management challenges.

RJ1 documented that, following these reflections, changes were made to reduce flipped content, simplify abstract topics, and improve the alignment between online and offline tasks. Teachers appreciated the program's richness and its superiority to the previous textbook-only approach: "Compared to the old training program, which used a textbook before, the new program is significantly better." They also acknowledged that their ICT skills had improved and that their materials design had became more effective, indicators of pedagogical growth.

Table 2. Summary of Phase 1 teacher reflections.

No.	Teacher Reflection Points	Detailed Reflections	No. of Agree
1	Teaching materials	Cannot be fully utilized due to too much material. Disjointed topics are not connected. Difficult material.	Reflective report (n = 10) Discussion (n = 11)
2	Workload for each class	Too much volume makes teachers have to teach quickly; students do not have time to absorb. Teachers have to redesign to reduce the volume. Low student level makes it difficult to follow.	Reflective report (n = 9) Discussion (n = 10)
3	Handouts	Cannot be used much due to limited time in class.	Reflective report (n = 8) Discussion (n = 9)
4	Student engagement	Students are not really interested and diligent in self-study, sometimes bored, skip class.	Reflective report (n = 5) Discussion (n = 5)
5	Allocating online–offline study time	The flipped content is a bit heavy. Need more time in class for skill production. Short class time.	Reflective report (n = 8) Discussion (n = 9)
6	Study topics	Diverse. Some topics are a bit abstract.	Reflective report (n = 4) Discussion (n = 4)
7	Teaching content	Quite difficult for students at the A1 level.	Reflective report (n = 3) Discussion (n = 3)
8	Comparing the new courses with the old ones	More superior. Teachers develop better expertise due to having to learn computer skills, technology skills.	Reflective report (n = 11) Discussion (n = 11)

4.2. Phase 1: Students' Evaluation of the Flipped B-Learning Course

Table 3 shows student evaluation categories developed deductively from reflective discussions (D1) supported by notes in the researcher's journal and themes echoed in informal student feedback. Reflective reports were not completed by students themselves. Rather, the references to "Reflective report (n = X)" in **Tables 3** and 5 denote the number of teacher reflective reports in which teachers documented students' attitudes and behaviors as observed during classroom activities. In contrast, student perspectives were collected through group discussions. In these discussions, class leaders took notes of their peers' shared opinions, which were subsequently analyzed and coded under the label "Discussion (n = X)." Students commonly noted skipping class and showing little interest in self-study as indicators of low online engagement.

Students described the materials as abundant but overwhelming: "The length of each online and offline lesson is 20–30 pages, which is too much compared to three periods." They noted difficulties connecting lesson segments and felt that exercises were disjointed: "The direct and systematic lessons in class with too much volume make the lesson run quickly without enough time for students to reflect."

Furthermore, speech recognition tools were reported to be inaccurate: "Poor voice recognition system, automatic feedback on online writing is okay." Some students said feedback lacked suggestions for improvement: "Students want suggestions to improve their mistakes." RJ1 notes indicated that students from underprivileged backgrounds struggled the most: "Many students do not grasp the basic knowledge and are very unfamiliar with listening and speaking skills." Their reflections emphasized the need for more grammar/speaking practice to overcome low proficiency barriers.

In addition, students expressed a need for clearer system guidance and more visible teacher support: "If teachers spend some time caring about us on the system, we will feel more motivated." They also identified heavy flipped content and short class time as barriers to successful engagement.

4.3. Phase 2: Teachers' Evaluation of the Revised Course

Categories shown in **Table 4** were created based on teacher reflections in the second implementation year as well as researcher journal notes from RJ2 and teacher feedback during Discussion 2 (D2). Teachers reiterated the ongoing challenges with certain lesson content being described as "abstract," which poses less of a challenge for students who are below A1 level. **Table 4** summarizes feedback from teachers and students after completing the courses.

Table 3. Summary of Phase 1 student reflections.

No.	Students' Evaluation	Focus Area	No. of Agree
1	Study materials	Not fully utilized due to an overwhelming amount of materials. Topics are disconnected and not well integrated. Some materials are difficult.	Reflective report (n = 8) Discussion (n = 8)
2	Diversity of exercises	The large volume requires the teacher to teach quickly, so students struggle to keep up. Teachers need to redesign and reduce content. Low student proficiency makes it challenging for them to follow.	Reflective report (n = 11) Discussion (n = 10)
3	Speech recognition	Poor sensitivity and accuracy in speech recognition.	Reflective report (n = 11) Discussion (n = 11)
4	Automatic feedback on writing	Students lack real interest and motivation for self-study, sometimes feeling discouraged or skipping classes.	Reflective report (n = 8) Discussion (n = 7)
5	Teacher support on the system	Insufficient teacher presence on the system.	Reflective report (n = 5) Discussion (n = 6)
6	Test format	Needs enhancement to familiarize students with international English exam formats.	Reflective report (n = 5) Discussion (n = 4)
7	System guidance	More guidance needed on grammar, vocabulary, and writing techniques.	Reflective report (n = 5) Discussion (n = 5)
8	Class content and system content	Varied content, but some topics (e.g., law, finance) are abstract and not relatable.	Reflective report (n = 5) Discussion (n = 5)
9	Learning materials	Diverse and plentiful. Handouts should be compiled into a single book rather than distributed individually by session.	Reflective report (n = 11) Discussion (n = 11)

Table 4. Summary of Phase 2 teacher reflections.

No.	Teacher Reflections	Detailed Reflections	No. of Agree
1	Teaching materials	Interesting topics. Some difficult material.	Reflective report (n = 9) Discussion (n = 8)
2	Workload for each class	Moderate volume. Low-level students need to be separated to be able to study effectively.	Reflective report (n = 10) Discussion (n = 10)
3	Handouts	Useful for teachers.	Reflective report (n = 10) Discussion (n = 9)
4	Students' engagement	Students show interest but are not fully autonomous in online learning.	Reflective report (n = 7) Discussion (n = 7)
5	Allocating online–offline study time	Reasonable flipped study time. Class time should be longer.	Reflective report (n = 10) Discussion (n = 9)
6	Study topics	Various. Interesting.	Reflective report (n = 9) Discussion (n = 9)
7	Teaching content	Quite difficult for students below the A1 level.	Reflective report (n = 8) Discussion (n = 8)
8	Comparing the new courses with the old ones	Much better. Do not want to go back to the previous program.	Reflective report (n = 10) Discussion (n = 10)

Teachers reported considerable improvements. RJ2 noted a smoother implementation: "Things seem smoother, but some online classes report students skipping exercises online." One teacher reflected: "The A2 program is relatively suitable for the students' level; however, the teacher still needs to give very detailed instructions." Handouts were appreciated after being compiled into booklets: "Handouts have suitable items and unsuitable items… more helpful for teachers." They affirmed pedagogical development through improved ICT skills and noted that better materials design had contributed to smoother delivery. Teachers also noted continued challenges with very low-level students and suggested creating separate groups: "Teachers proposed separating students with a level below A1 to study separately so that they can be taught at a slower pace."

4.4. Phase 2: Students' Evaluation of the Revised Course

Overall, the student feedback in Phase 2 was more positive. **Table 5** shows themes drawn from student discussions

(D2) and reflective reports supported by RJ2's observations. Students reported improved experiences, but some still mentioned that the voice recognition system was "not accurate" and showed a "lack of progress" (RJ2).

Table 5. Summary of Phase 2 student reflections.

No.	Students' Evaluation	Focus Area	No. of Agree
1	Study materials	Good support for students' self-study	Reflective report (n = 11) Discussion (n = 10)
2	Diversity of exercises	Diverse exercises	Reflective report (n = 10) Discussion (n = 10)
3	Speech recognition	This software is not good	Reflective report (n = 7) Discussion (n = 7)
4	Automatic feedback on writing	This software should suggest corrections for learners	Reflective report (n = 8) Discussion (n = 8)
5	Teacher support on the system	Teachers enthusiastically monitor and support students in self-studying on the online platform	Reflective report (n = 9) Discussion (n = 9)
6	Test format	The international English test is quite challenging for students	Reflective report (n = 9) Discussion (n = 9)
7	System guidance	Full detailed instructions	Reflective report (n = 10) Discussion (n = 10)
8	Class content and system content	Interesting topics, suitable for students' ages	Reflective report (n=11) Discussion (n = 11)
9	Learning materials	Diverse, rich, helpful for students' self-study	Reflective report (n=11) Discussion (n = 11)

Students appreciated the improved structure and content relevance: "The learning topics were closer and more accessible to students." In addition, they reported increased teacher presence online: "Teachers enthusiastically monitor and support students in self-studying on the online platform." However, limitations in digital tools remained: "Voice recognition ability is not very good… the system highlights errors, but low-level students want suggestions." Students also emphasized the ongoing need for more grammar/speaking practice and asked for more comprehensive feedback tools that surpass automated error marking.

4.5. Cross-Phase Summary

A comparative analysis of both phases revealed significant progress. Teachers and students noted improved course coherence, better material management, and more engaging content after the Phase 1 adjustments. Persistent key challenges include the limited adaptability of digital tools and the need for differentiated support for students with very low English proficiency. RJ2 confirmed increased satisfaction: "75% of the teachers feel satisfied with the revised program overall, and 80% of the students are satisfied." The use of triangulated data sources strengthened the credibility and applicability of these findings.

The findings support claims in the literature that flipped and blended learning enhances language instruction in EFL contexts [1,7] but also highlight the importance of localized adaptation, especially for learners with limited digital and language proficiency. The triangulation of reflective reports, group discussions, and journal observations ensured a more comprehensive understanding of the implementation outcomes and informed data-driven revisions of the instructional model. In addition to its pedagogical significance, the study also contributes to theoretical debates in applied linguistics by illustrating how flipped and blended learning can operationalize self-regulated learning and learner autonomy frameworks in under-researched EFL contexts. The findings show that such models not only enhance instructional delivery but also mediate the relationship between digital tools and linguistic outcomes, particularly for learners at lower proficiency levels.

5. Conclusions

5.1. Key Findings

This study examined the implementation of a flipped and blended (B-learning) English language program for non-

English-major engineering students at a Vietnamese university. Drawing on qualitative data from teacher reflective reports, student discussions, and the researcher's journal, the findings indicate that the program was largely perceived as effective in supporting student engagement, developing language skills, and enhancing instructional delivery.

In both implementation phases, most teachers and students evaluated the program positively. The teachers highlighted the program's structured design, diverse materials, and improved technological and pedagogical practices. The students reported increased exposure to English, a greater use of digital tools, and improved access to various types of learning content. However, challenges persisted, especially for students with proficiency levels below A1, who struggled with the volume and complexity of the content. Both groups noted that speaking and writing skill development, particularly in formative assessments, required further support in some areas.

The findings also reinforce the role of flipped learning in fostering learner autonomy and extending practice time beyond the classroom. This study contributes to the existing scholarship by providing evidence from a Southeast Asian EFL context, where digital infrastructure and student preparedness levels may differ considerably from those in settings with greater resources. These findings align with theoretical perspectives on self-regulated learning and learner autonomy [3,4], demonstrating that while flipped models promote engagement, their success depends on careful scaffolding, differentiated support, and continued instructional monitoring.

5.2. Implications

Based on the findings, the following recommendations are proposed for future implementation and broader institutional adoption:

1. Curriculum Differentiation: Tailoring content to students' actual proficiency levels is critical. Students below the A1 level should be placed in introductory sub-level courses with simplified content and slower pacing to improve their access and learning outcomes.
2. Integrating Productive Skill Development: A stronger emphasis on writing and speaking is required to foreground the linguistic dimension of the program. Embedding more structured speaking tasks in classroom interaction and designing scaffolded writing assignments within the online modules would help ensure that communicative competence develops alongside receptive skills.
3. Improving Alignment of Materials: The cohesion between online and classroom activities should be promoted, particularly by reducing overlapping content and streamlining lesson structures to fit within time constraints.
4. Upgrading Digital Tools: Investment in more advanced educational technologies, such as AI-enhanced speech recognition and intelligent writing feedback systems, would improve the interactivity and responsiveness of online platforms.
5. Strengthening Teacher and Student Support: Continuous training of teachers in flipped pedagogy and digital instruction is essential. Similarly, onboarding student workshops focusing on independent learning strategies and digital literacy should be offered at the beginning of each term.
6. Monitoring and Evaluating Implementation: Institutions adopting similar models should embed routine monitoring and reflection mechanisms (e.g., reflective journals and student focus groups) to ensure responsive and iterative improvements.

5.3. Broader Implications for EFL Instruction

This study highlights the potential of flipped blended learning to address persistent challenges in EFL instruction at the tertiary level, particularly in large resource-constrained institutions. This demonstrates that with appropriate scaffolding and institutional support, students with lower English proficiency can benefit from increased exposure, practice opportunities, and digital learning integration. These findings suggest that blended learning, when designed considering local learner needs, can be a scalable model for improving English education in similar contexts across Southeast Asia and beyond.

Future research should explore the longitudinal impacts of such programs on language proficiency outcomes, the role of teacher–student interaction in flipped models, and comparative studies between fully online, blended, and traditional instructional designs in EFL contexts.

At a theoretical level, this study extends current discussions in applied linguistics on how digital pedagogies interact with learner autonomy and self-regulation in multilingual, resource-constrained contexts. By situating blended-flipped models within the CEFR framework, it demonstrates how global theories of digital learning can be localized and adapted, thereby enriching comparative research on language education in developing higher-education systems.

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Institutional Review Board Statement

This study was approved by the ethics board of our university.

Informed Consent Statement

All participants were provided with an information sheet outlining the study objectives, data usage, and confidentiality measures. Written informed consent was obtained from all students, who were assured of their right to withdraw at any point without penalty.

Data Availability Statement

The data that support the findings of this study are available from the author upon reasonable request, with restrictions to protect participant confidentiality. The data and materials, researcher journals, student reflections, and instructional resources used in the study can be provided in Word format. Access will be granted on a case-by-case basis, and requestors must agree to use the data solely for academic or research purposes in accordance with ethical guidelines.

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Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this paper.

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