

Beyond the Classroom Walls: Indonesian EFL Students' Self-Regulated Learning Experiences in a Flipped Listening Classroom

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ABSTRACT

The rapid advancement of Information and Communication Technology (ICT) has transformed higher education, positioning the Flipped Classroom Model (FCM) as a strategic pedagogical innovation for student-centered learning. This study addresses a significant gap in the literature regarding how students independently regulate their learning within less structured environments, specifically focusing on the "transient" nature of listening skills which demand high levels of concentration and self-regulation. The primary objective of this research is to gain an in-depth understanding of how Indonesian EFL students manage their self-regulated learning (SRL) processes, identifying emerging behaviors and challenges beyond the classroom walls. Employing a qualitative descriptive design, the study utilized semi-structured interviews with 13 undergraduate English Education students at a private university in Indonesia who were selected through purposive sampling. Data were analyzed using Braun and Clarke's thematic analysis framework. The findings unveil a critical theoretical shift from traditional individualistic self-regulation to "Eco-Systemic SRL Constraints," demonstrating that EFL learners' metacognitive monitoring and environmental structuring are deeply bounded by their techno-economic realities. While FCL potentially triggers active learner roles, it simultaneously induces "Autonomy Shock" for students transitioning from teacher-dependent cultures. Furthermore, the study identifies that unstable connectivity and un-chunked media deplete students' "Techno-Cognitive Bandwidth," causing infrastructure-related anxiety to override target language processing. The implications suggest that while FCL supports SRL development, successful implementation requires robust institutional digital infrastructure and explicit instructor-led training in goal setting and time management to prevent learner frustration and ensure pedagogical effectiveness.

Keywords: Flipped Classroom; Experiences; Listening Skill; Students' Self-Regulated Learning.



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1. INTRODUCTION

The dynamics of higher education in the digital era have undergone a fundamental paradigmatic transformation alongside the rapid advancement of Information and Communication Technology (ICT). This shift has not only altered learning infrastructures but also necessitated a methodological reorientation from traditional teacher-centered models to more

flexible, student-centered approaches (Verma et al., 2025). Amidst this modernization, the Flipped Classroom Model (FCM) has emerged as a highly popular pedagogical practice due to its ability to cohesively integrate online learning advancements into the higher education curriculum (Hasan et al., 2024). As a pedagogical innovation, FCM offers a rich multimedia learning environment where students are granted full autonomy to engage with course content at their own individual learning pace (Shih & Huang, 2020). This flexibility, supported by robust technological infrastructure, enables the creation of an academic ecosystem that is no longer confined by the physical constraints of time and space associated with conventional classrooms. Consequently, the adoption of FCM in higher education is regarded as a strategic step in addressing the challenges of globalized education, which demands both efficiency and effectiveness in knowledge transfer.

Conceptually, Flipped Learning (FL) is defined as an instructional method that radically inverts the traditional learning cycle to significantly enhance student learning outcomes. In this model, primary information transmission occurs before the face-to-face session begins, during which students independently explore learning materials such as instructional videos, podcasts, or digital literature (Cheng et al., 2019; Låg & Sæle, 2019; van Alten et al., 2020). This strategy aims to maximize the efficiency of in-class time, ensuring that physical meetings are dedicated entirely to higher-order cognitive applications rather than passive lecture consumption. By shifting the initial cognitive load to an independent environment, students have the opportunity to process information deeply before interacting with peers and instructors (Andriani et al., 2026). This creates a sturdier knowledge foundation, which in turn facilitates more meaningful engagement during synchronous activities. This approach reflects the principles of the revised Bloom's Taxonomy, where foundational understanding is achieved independently, while analysis and synthesis are conducted under direct expert guidance.

The implementation of FCM as a common instructional approach involves the design of teacher-created materials featuring the instruction of new concepts to be consumed by students outside of scheduled class hours. This structure systematically liberates interaction time between instructors and students, which is subsequently allocated for more intensive collaborative efforts within the classroom (Bergmann & Sams, 2023). In this scenario, independent preparation at home becomes an absolute prerequisite before students step into the dynamic classroom environment. Conversely, the role of the educator transforms from a content deliverer into a facilitator who provides strategic instructions and guided mentorship (Maphalala, 2013). During in-class sessions, students can put what they have learned into practice through collaborative group work, complex problem-solving, critical discussions, and project-based assignments under the direct supervision and feedback of their professors (Huang & Hong, 2016). The synergy between independent preparation and collaborative application creates a continuous learning cycle that reinforces information retention and practical skill development simultaneously.

In its operationalization, content mastery within the FCM ecosystem relies heavily on the utilization of various digital platforms such as Learning Management Systems (LMS), YouTube, academic blogs, wikis, and other online resources. Teachers bear the responsibility of providing specific and structured online learning environments to ensure that the flow of material remains consistent and easily accessible to students (Kasriyati et al., 2026; Wanner & Palmer, 2015). To ensure that students gain meaningful knowledge through in-class activities, instructors must be capable of modifying conversational patterns and encouraging active participation from all learners. It is crucial for students to disciplinedly study the related online content before actively participating in face-to-face sessions, as the success of classroom discussions depends heavily on

this pre-class readiness (Amiryousefi, 2019). In the context of language learning, intercommunication becomes both the method of instruction and the ultimate goal of the learning process in a flipped English as a Foreign Language (EFL) classroom. Through this model, students are compelled to consider their responses carefully and take their time to formulate solutions or arguments before presenting them in a discussion forum.

Furthermore, a well-designed flipped classroom grants students greater control over their own learning process, fostering the teamwork skills necessary in a modern participatory culture. Students gain more opportunities to communicate with instructors and classmates, both in the target language and their native tongue, which aids in clarifying complex concepts. In the context of EFL teaching, FCM has become a rapidly growing subject of research and has indicated positive impacts on the development of students' linguistic skills (Öztürk & Çakıroğlu, 2021; Etemadfar et al., 2020; Vaezi et al., 2019; Irianti et al., 2022; Thatphaiboon & Sappapan, 2022; Ahmad, 2016). Various cross-disciplinary studies also affirm that flipped classrooms are effective in supporting learning outcomes, enhancing academic performance, knowledge achievement, and metacognitive abilities (Al-Samarraie & Hurmuzan, 2018). Beyond cognitive aspects, FCM has proven capable of increasing student motivation and encouraging the use of more complex linguistic aspects, such as idioms, during classroom interactions (Hsieh et al., 2017). This increase in motivation, active engagement, and cognitive learning outcomes demonstrates that the flipped learning approach successfully meets holistically established learning objectives (Kostaris et al., 2017).

Despite the burgeoning body of literature celebrating the pedagogical merits of the Flipped Classroom Model (FCM) in English language instruction (Çakıroğlu & Öztürk, 2021; Öztürk & Çakıroğlu, 2021), an empirical void persists regarding how Self-Regulated Learning (SRL) operates within the specific domain of listening comprehension, particularly within the Indonesian Higher Education EFL landscape. Existing studies predominantly evaluate macro-level learning outcomes, such as overall academic performance or generalized speaking competencies (Lee & Wallace, 2018; Namaziandost et al., 2020), leaving the internal, micro-level cognitive and metacognitive mechanisms of autonomous listening unexplored.

This omission is critical because listening is inherently characterized by its "transient" nature, acoustic input vanishes instantly, demanding high-stakes real-time cognitive processing, selective attention, and immediate decoding. In an unguided out-of-class flipped environment, Indonesian EFL learners, who traditionally transition from highly teacher-centered secondary education cultures, frequently experience severe cognitive friction. Previous research in computerized contexts Cabı (2018) vaguely attributes instructional failures to generic home-based study difficulties without probing the psychological and behavioral underpinnings of SRL.

Therefore, a critical synthesis of current literature reveals a clear mismatch: while FCM assumes a baseline level of student autonomy, the unique intersection of a high-anxiety receptive skill (listening) and a historically dependent student profile (Indonesian EFL undergraduates) remains critically under-researched. This study directly addresses this empirical gap, moving beyond descriptive achievement metrics to critically examine how these students navigate, monitor, and regulate their listening strategies beyond the structured safety of classroom walls.

Based on this background, this study aims to fill the literature gap by providing a deep understanding of how Indonesian EFL students manage their learning process within a flipped classroom structure. Listening skills were chosen as the focus due to their "transient" nature and the requirement for simultaneous cognitive processing, which necessitates highly effective self-regulation strategies. This study will not only examine in-class activities but also the learning

behaviors that emerge outside the physical boundaries of the classroom, where self-regulation is truly tested. Additionally, by identifying the specific challenges faced by students, this study is expected to provide pedagogical recommendations for instructors to design FCM environments that are more supportive of student autonomy development. Specifically, this research is directed to answer the following three fundamental questions: (1) how do Indonesian EFL students experience self-regulated learning within a flipped listening classroom context?; (2) what self-regulated learning behaviors emerge beyond the classroom walls in flipped listening instruction?; (3) what challenges do students encounter in regulating their listening learning processes within the flipped classroom context?

2. METHODS

2.1 Research Design and Philosophical Framework

This research is meticulously designed as a qualitative descriptive study, a framework chosen for its profound ability to elucidate the intricate lived experiences of Indonesian EFL students within the specific context of a flipped classroom listening environment. A qualitative paradigm is fundamentally appropriate for this investigation, as it prioritizes the derivation of meaning from the participants' subjective realities rather than the objective quantification of learning outcomes through statistical metrics (Creswell, 2012). By adopting a descriptive lens, the study seeks to offer a comprehensive summary of events in everyday terms, staying close to the data to ensure that the students' voices remain the focal point of the narrative. This methodological choice aligns with the ontological stance that reality in an educational setting is multifaceted and socially constructed, necessitating a design that can capture perceptions, behaviors, and the nuanced challenges faced by learners in their natural academic habitats (Sandelowski, 2010). Furthermore, this approach facilitates a detailed exploration of the "how" and "why" behind student engagement with self-regulated learning (SRL) strategies, providing a level of depth that quantitative surveys might otherwise obscure.

2.2 Research Participants and Sampling Strategy

The subjects of this inquiry consisted of 13 undergraduate students majoring in English Education at a prominent private university in Indonesia, all of whom were actively enrolled in a specialized listening course utilizing the Flipped Classroom Model (FCM). To ensure the acquisition of rich and relevant information, the researchers employed a purposive sampling strategy, a non-probability method designed to select participants who possess specific characteristics vital to the research objectives. The selection process was governed by three rigorous inclusion criteria: first, students had to be formally registered in the flipped listening course during the study period; second, they must have demonstrated consistent engagement with pre-class digital materials, such as instructional videos and audio modules; and third, they were required to provide informed consent voluntarily. The sample size of 13 was maintained throughout the entire research duration, ensuring a stable data set where every participant contributed to the final analytical phase. This specific group of participants was deemed ideal because their dual role as language learners and technology users allowed them to provide sophisticated insights into the intersection of self-regulation and digital pedagogy.

2.3 Instrumentation and Data Collection Protocol

The primary instrument for data collection in this study was a semi-structured, in-depth interview protocol, specifically designed to extract the cognitive and affective dimensions of the students' experiences. The interview schedule comprised 13 guiding questions, strategically adapted from validated frameworks in contemporary flipped learning and SRL literature (Andujar & Nadif, 2022; Bicen & Beheshti, 2022). These questions were meticulously categorized to address four overarching dimensions: motivation, pedagogical effectiveness, learner engagement, and overall satisfaction with the flipped instructional design. By utilizing a semi-structured format, the researchers were able to maintain a consistent thematic focus while allowing the flexibility to probe deeper into unexpected or particularly insightful responses provided by the students. The instrument sought to uncover not only the students' successes in managing their own learning but also the granular details of the obstacles they encountered, such as time management and technical hurdles. All data collection sessions were conducted in a neutral, supportive environment to encourage openness, with each interview being audio-recorded and subsequently transcribed verbatim to preserve the linguistic nuances of the participants.

To guarantee the structural validity and conceptual rigour of the semi-structured interview protocol, a multi-stage quality assurance procedure was executed. First, the initial draft of the 12-item protocol underwent formal expert judgment by two senior professors specializing in EFL Methodology and Educational Psychology. This expert review focused on aligning the questions with the triadic phases of Zimmerman's (2009) SRL framework (forethought, performance, and self-reflection) and checking for construct representation.

Second, following minor adjustments suggested by the experts regarding question sequencing, a readability pilot test was conducted with two non-participant students from the same department. This stage ensured that the prompts were linguistically transparent, free from ambiguous academic jargon, and capable of eliciting deep narrative responses. Finally, a quality assurance matrix was employed to cross-reference each question with the study's central research questions, verifying that no analytical blind spots remained before full deployment. The research question describe in Table 1.

Table 1. Questions for Interview

Questions
1. How Could you independently acquire content knowledge remotely?
2. Could you individually apply your online acquired knowledge to your own work?
3. Did flipped classroom foster self-assessment?
4. What are the advantages of flipped classroom?
5. What are the disadvantages of flipped classroom?
6. Do You think FCL guided you toward a better understanding of the listening content
7. What difficulties do you encounter when learning through flipped classroom learning?
8. How far you understand the listening material through FCL?
9. Is listening learning more engaging through the FCL method than the traditional learning approach?
10. Are you more motivated to learn Listening through the FCL method.
11. What do you think about learning Listening through FCL is easier?
12. Do you became a more active learner in the flipped classroom?

2.4 Data Analysis Procedures

The raw qualitative data obtained from the verbatim transcripts were subjected to a systematic, iterative six-phase thematic analysis framework as operationalized by Braun and Clarke (2006). The analysis progressed through the following strict chronological stages to ensure analytical consistency, as shown in Figure 1.

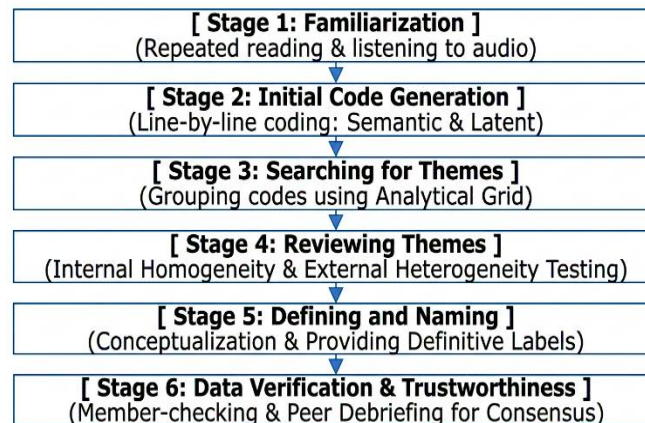


Figure 1. Diagram of the Six-Stage Process of Thematic Analysis for Qualitative Data.

Figure 1 illustrates a rigorous, sequential, and iterative approach to qualitative data analysis, following a structured six-phase thematic analysis framework supplemented with robust quality assurance procedures. The analytical process initiates with Stage 1 (Familiarization), which requires the researchers to achieve deep data immersion by repeatedly reading the interview transcripts while simultaneously listening to the original audio files. This dual approach ensures absolute orthographic accuracy and captures essential prosodic nuances, such as tone and hesitation, before any formal coding begins. Following this initial immersion, the analysis progresses to Stage 2 (Initial Code Generation). In this phase, systematic line-by-line open coding is performed on the dataset using both semantic and latent approaches, allowing the researchers to capture explicit surface-level meanings as well as the underlying conceptual and psychological dimensions of the participants' responses.

Once initial coding is complete, the process moves to Stage 3 (Searching for Themes), where the granular codes are sorted and clustered into broader candidate sub-themes and main themes. This categorization is systematically organized using an analytical grid to visually map out the conceptual connections between different codes. These candidate themes then undergo a strict validation process in Stage 4 (Reviewing Themes) to ensure analytical integrity. During this stage, the themes are cross-referenced against the entire transcript dataset to test for internal homogeneity, verifying that the data within each theme fit together meaningfully, and external heterogeneity, ensuring clear and distinct boundaries between separate themes. After successful validation, Stage 5 (Defining and Naming) is executed to conceptualize the essence of each theme and assign definitive, descriptive labels that precisely convey the structural nature of the findings to the reader.

The final phase, Stage 6 (Data Verification & Trustworthiness), consolidates the entire thematic framework by integrating rigorous qualitative verification procedures to establish methodological credibility and dependability. To prevent researcher bias and ensure that the final interpretations align authentically with the participants' lived realities, member-checking is conducted by returning the finalized transcripts and thematic outlines to a subset of the

participants for confirmation. Furthermore, the analysis incorporates peer debriefing sessions among the co-authors to critically review the coding structures, resolve any interpretive discrepancies, and establish a clear inter-coder consensus, thereby securing high dependability and structural consistency across all qualitative findings.

2.5 Rigour and Trustworthiness: Credibility and Dependability

Establishing the rigor of qualitative findings is paramount to ensuring their acceptance within the international academic community; thus, this study strictly adhered to the criteria of credibility, dependability, and confirmability. Credibility was fortified through the observation of thematic saturation, where key findings, such as the correlation between autonomous preparation and heightened classroom motivation, emerged consistently across the diverse accounts of the 13 participants. To avoid the pitfall of a one-sided "positive" narrative, the researchers actively sought and included divergent perspectives, particularly regarding the frustrations caused by internet instability and the cognitive load of lengthy instructional videos. This inclusion of negative or challenging experiences provides a balanced, authentic portrayal of the students' lived realities, thereby enhancing the truth-value of the research. Dependability was maintained through a transparent and systematic audit trail, documenting every decision made during the transition from raw data to final thematic structures. By applying the analytical procedures uniformly across all transcripts, the study ensures that the findings are not idiosyncratic but are the result of a replicable and stable investigative process.

2.6 Confirmability and Methodological Limitations

Confirmability was addressed by ensuring that all interpretations and conclusions were anchored directly in the empirical data, minimizing the potential for researcher bias or preconceived theoretical assumptions. Each identified theme, from the nuances of motivational regulation to the specifics of technological challenges, was substantiated with direct verbatim quotations from the participants, allowing for a transparent link between the evidence and the findings. The researchers engaged in continuous reflexivity, questioning their own interpretations and returning to the original transcripts to verify that the students' original meanings remained intact throughout the synthesis. Despite these rigorous measures, the study acknowledges certain methodological limitations, such as the specific focus on a single private university in Indonesia, which may limit the direct generalizability of the findings to different cultural or institutional contexts. Furthermore, the reliance on self-reported data through interviews means that the findings represent the students' perceptions of their behaviors rather than direct observations of their study habits. Nevertheless, within the scope of qualitative inquiry, these limitations are mitigated by the depth of the insights gained, providing a robust foundation for future longitudinal or comparative research in the field of EFL flipped learning.

3. RESULT AND DISCUSSION

This study investigated students' experiences of self-regulated learning in a flipped classroom for listening skills. Thirteen open-ended questions were administered and categorized into four main variables: motivation, effectiveness, engagement, and satisfaction. The findings are presented based on students' responses and supported by representative excerpts from the interview transcripts. To clarify the structural taxonomy of the qualitative findings and fortify interpretive validity, Table 2 maps out the core themes, corresponding sub-themes, and their conceptual indicators derived from the operationalized thematic analysis. To provide a

comprehensive structural taxonomy of the qualitative findings and fortify interpretive validity, a rigorous thematic mapping was executed. Table 2 delineates the conceptual convergence from empirical indicators (initial codes) to main themes, aligned with the dimensions of Self-Regulated Learning (SRL).

Table 2. Thematic Mapping of Students' SRL Experiences in Flipped Listening

Main Themes	Sub-themes	Sample Initial Codes & Empirical Indicators	Associated SRL Dimension
1. Metacognitive Agency and Motivational Shifts	1.1. Autonomous Pacing Regulation	[Pacing control] (utilizing pause/rewind features) [Selective attention] (focusing on tough accents) [Independent material access] (opening journals/videos)	Performance Phase (Self-Control & Metacognitive Monitoring)
	1.2. Intrinsic Goal Orientation	[Mastery mindset] (evolution from grade compliance) [Proactive planning] (deliberate environmental control) [Future focus regulation] (commitment to listening growth)	Forethought Phase (Task Motivation & Goal Setting)
2. Socio-Pedagogical Classroom Transformation	2.1. Pre-Class Schema Activation	[Anxiety reduction] (prior exposure lowering stress) [Comprehension readiness] (understanding lecturer's prompts) [Content schema building] (pre-class preparation)	Forethought Phase (Strategic Planning & Task Analysis)
	2.2. Collaborative Knowledge Construction	[Active learner role] (knowledge co-construction) [Peer scaffolding] (meaning-making in synchronous class) [Active classroom participation] (spontaneous oral engagement)	Performance Phase (Help-Seeking & Behavioral Engagement)
3. Structural and Eco-Systemic Friction	3.1. Techno-Economic Marginalization	[Network distraction] (unstable platform access) [Quota exhaustion] (financial burden of video streaming) [Infrastructure exclusion] (digital divide anxiety)	Performance Phase (Environmental Structuring Obstacles)
	3.2. Transient Cognitive Overload	[Hasty material delivery] (videos uploaded hours before class) [Video length fatigue] (reluctance toward un-chunked media) [Platform processing difficulty] (digital literacy gaps)	Self-Reflection Phase (Defensive Reactions & Cognitive Fatigue)

3.1 Students' Motivation in Flipped Classroom Learning

The qualitative narratives indicate that the motivational impact of FCL is inextricably linked to the cultivation of metacognitive agency. Rather than a superficial increase in situational interest, students who thrived in the flipped environment experienced a deeper conceptual shift in how they conceptualized their learning responsibility. For these students, motivation was manifested as a deliberate strategy to regulate their learning focus. As Student 11 interpretively noted:

"In traditional classes, when I missed a word in a listening tape, I felt instantly paralyzed and gave up. But in FCL, knowing I have the video beforehand shifts my mindset. It motivates me to actively plan my focus. If I fail to understand it on the first listen, I don't panick; I deliberately

regulate my environment, replay the tough parts, and try to decode the accents at my own pace before the face-to-face class begins."

This excerpt demonstrates that FCL alters the psychological landscape of listening instruction by replacing immediate anxiety with a structured opportunity for strategic monitoring. However, this motivational shift was not uniform; it was mediated by learner readiness. Students who struggled with this model viewed the newfound autonomy as a structural burden, showing that without explicit pedagogical scaffolding, the shift from a teacher-led ecosystem to an independent one can induce passive resistance or hesitation.

3.2 Effectiveness of Flipped Classroom Learning

In terms of effectiveness, most students perceived FCL as an effective approach to support listening learning and self-regulated learning. Seven students clearly agreed that FCL was effective, while three students were unsure. One student explained the effectiveness of FCL in accessing learning materials:

"Yes, because by opening a journal to watch educational videos, I get more learning and material."
(Student 5)

Another student emphasized improved comprehension during classroom interaction:

"Yes, this is effective because I can understand the material when the lecturer asks about the material." (Student 10)

Despite these positive perceptions, a small number of students expressed uncertainty, suggesting that the effectiveness of FCL may vary depending on individual learning preferences and technological familiarity. These findings indicate that FCL is generally perceived as effective in supporting listening activities, particularly in enhancing students' preparation and understanding prior to classroom discussions.

3.3 Student Engagement in Flipped Classroom Learning

Regarding engagement, the majority of students reported becoming more active learners in the flipped classroom environment. Eight students stated that FCL encouraged them to actively construct knowledge and understanding through pre-class preparation. One representative response stated:

"Yes, of course. FCL encourages us to become active learners to construct knowledge and understanding." (Student 3)

However, five students reported challenges related to engagement, particularly when accessing learning materials through digital platforms. One student mentioned:

"Not sure, because I have a problem when I should understand by learning platform." (Student 6)

These findings suggest that while FCL promotes active learning and engagement, technological issues and digital literacy may hinder some students' participation. Students' ability to engage effectively in FCL appears to be closely related to their access to and familiarity with online learning platforms.

3.4 Students' Satisfaction with Flipped Classroom Learning

Students' satisfaction with FCL varied across participants. Six students reported a high level of satisfaction, estimating approximately 80% satisfaction with their listening learning experience. Three students reported moderate satisfaction (around 50%), while one student expressed minimal satisfaction. A highly satisfied student stated:

"80%, I feel that the flipped classroom makes me satisfied." (Student 8)

Conversely, one student reported dissatisfaction, explaining that the learning process was not optimally implemented:

"Not yet, there is no satisfaction in myself." (Student 4)

These findings indicate that most students were satisfied with FCL, although satisfaction levels differed depending on how effectively the flipped learning activities were implemented and supported by the lecturer.

3.5 Perceived Advantages and Disadvantages of Flipped Classroom Learning

Students identified several advantages of FCL in learning listening skills. The most frequently reported benefits included better understanding of the content, faster learning, and a higher degree of learning independence. Representative responses included:

"Better understanding of the contents." (Students 5, 9, 10, 11, 12)

"Faster learning." (Students 2, 3, 6, 7, 8)

"Higher degree of learning." (Student 13)

Despite these advantages, students also reported several challenges associated with FCL. The main disadvantages included unstable internet connections, limited data quotas, reluctance to watch lengthy videos, and insufficient preparation time before class. One student explained:

"Network will be a distraction when I access video or learning platform." (Student 6)

Another student highlighted time-related concerns:

"I think this learning technique is done a little hastily if the lecturer gives the material a few hours before the class starts." (Student 10)

Overall, while FCL supports self-regulated learning and listening skill development, its successful implementation requires adequate technological infrastructure and careful instructional planning.

3.6 Discussion

a. Motivational Dynamics in Self-Regulated Learning

This study explored the intricate landscape of students' experiences regarding self-regulated learning (SRL) within a flipped classroom environment specifically tailored for listening skills. The findings indicate that a significant majority of students experienced a notable increase in motivation when engaging with the Flipped Classroom Learning (FCL) model. This surge is largely attributed to the agency granted to students, allowing them to control their learning pace and interact with complex audio-visual content multiple times prior to entering the high-stakes classroom environment. According to SRL theory, motivation serves as the primary engine that enables learners to plan, monitor, and evaluate their cognitive processes effectively (Christakis et al., 2004; Garcia et al., 2018;

Zimmerman & Moylan, 2009). Students reporting higher motivation tended to express a greater awareness of managing their focus and learning strategies, suggesting that FCL fosters deep metacognitive engagement. These results strongly align with previous studies indicating that flipped environments enhance student motivation by shifting learning responsibility from instructors to learners (Fraile et al., 2017; Öztürk & Çakıroğlu, 2021; Panadero, 2017; Şad et al., 2022).

b. Challenges of Learner Readiness in Autonomous Learning

It is crucial to recognize that motivation within an FCL setting does not emerge automatically through the mere use of technology. The presence of students who expressed uncertainty highlights that the transition toward independent learning can be overwhelming for those accustomed to passive reception. As suggested by Sletten (2017), learners who lack a historical foundation in independent study often require explicit scaffolding and directed guidance to successfully navigate the flipped landscape. This finding resonates with the argument by Broadbent & Poon (2015), who stated that without pre-existing SRL skills, students may perceive the autonomy of FCL as a burden rather than an opportunity. Therefore, motivational success in a flipped listening course depends heavily on the instructor's ability to bridge the gap between student capability and the demands of autonomous tasks. Explicit instruction on how to manage time and set realistic goals for pre-class activities remains a vital component of any flipped implementation.

A critical interpretation of the empirical data reveals that the intersection of socio-economic realities and the transient cognitive load of listening creates a unique form of "pedagogical friction" within the Indonesian EFL context. Unlike Western-centric studies that frequently take high-speed digital connectivity and stable infrastructure for granted (Zawacki-Richter & Jung, 2023; Zawacki-Richter et al., 2025), our data highlights that internet instability and data quota limitations are not merely technical inconveniences. Instead, they fundamentally disrupt the psychological and cognitive timeline required for effective self-regulated learning (SRL).

When a student encounters a disconnected network or a buffering platform while attempting to process a dense, un-chunked audio file, their limited working memory capacity is instantly depleted by "technological anxiety" rather than target language decoding. In qualitative terms, the student's cognitive energy is misallocated toward solving infrastructure crises, leaving insufficient mental bandwidth for metacognitive monitoring or strategy application. This empirical reality explains why a simplistic deployment of the Flipped Classroom Model (FCM) often fails in developing educational contexts.

Furthermore, this technological disruption compounded by the historical background of the learners creates a double burden. The psychological transition from a historically passive, exam-oriented secondary education culture in Indonesia to an autonomous, high-agency flipped environment already demands a massive cognitive adjustment. When this fragile transition is hit by systemic digital barriers, learner motivation collapses.

Therefore, if instructors provide lengthy instructional videos only a few hours before synchronous sessions, they inadvertently create an elite tier of high-achieving, urban-centered students who possess the socio-economic infrastructure to self-regulate. Concurrently, this practice structurally marginalizes rural or low-income learners who cannot comply with pre-class requirements due to quota exhaustion. These findings

directly challenge the normative, overly optimistic claims of general flipped learning frameworks, demonstrating that SRL in listening is not merely an internal psychological trait, but a capability heavily constrained and shaped by the digital-infrastructure ecosystem of the learner.

c. Technological Barriers and the Digital Divide

However, the shadow of technological disparity looms over the engagement dimension, as difficulties in accessing platforms and limited internet connectivity hindered several students. These barriers suggest that the successful implementation of FCL in an Indonesian EFL context requires more than pedagogical innovation; it necessitates a robust institutional support system for digital infrastructure. Students struggling with data quotas or unstable connections often felt marginalized during classroom discussions because they could not fulfill pre-class requirements. This observation aligns with the findings of [Rasheed et al. \(2020\)](#), who identified technological challenges as a significant predictor of student disengagement in blended and flipped learning environments. Consequently, instructors must consider "low-bandwidth" alternatives or offline access to materials to ensure that technological limitations do not become insurmountable hurdles to equitable student engagement.

d. Pedagogical Effectiveness of Flipped Classroom in Listening

Regarding the perceived effectiveness of FCL for listening skills, the data suggest that this approach is exceptionally beneficial in enhancing both deep comprehension and the quality of classroom discourse. By having pre-class exposure to listening materials, students arrive at face-to-face sessions with sufficient prior knowledge, facilitating more nuanced discussions and targeted clarification of linguistic difficulties. This outcome reinforces constructivist learning principles, which posit that knowledge is constructed through active cognitive engagement rather than mere information transmission ([Wertsch & Sohmer, 1995, 1995](#)). Consistent with the findings of [Srivastava \(2014\)](#), the current study indicates that FCL provides a strategic platform for students to organize their study schedules and pilot various listening strategies tailored to their idiosyncratic needs. Furthermore, recent studies in EFL contexts have shown that this "prior exposure" drastically reduces cognitive load during synchronous activities, allowing students to focus on higher-order tasks such as critical analysis ([Ebadi et al., 2025](#); [Ninghardjanti et al., 2025](#)).

e. The Importance of Instructional Design Alignment

Nevertheless, the effectiveness of the flipped model is highly sensitive to the quality of instructional design, as evidenced by a small group of students who remained skeptical of its impact. If a disconnect occurs between pre-class video content and in-class collaborative activities, the perceived utility of the model diminishes rapidly for the learner. Alignment of learning objectives across both online and offline components is essential to maintain the internal logic of the course and ensure students perceive value in their independent efforts. This finding is supported by [Moussaoui \(2025\)](#), who emphasized that the "flipped" nature of a class only functions when materials are perceived as relevant and directly applicable to the tasks performed in the teacher's presence. Without this alignment, students may revert to surface-level processing, thereby negating the deeper learning benefits intended by the constructivist framework of the flipped classroom.

f. The Power of Engagement and Active Learning

Engagement emerged as a primary strength of the flipped classroom approach in this study, with most participants reporting a transition toward more active roles as learners. Because this model necessitates preparation prior to the session, students are intrinsically compelled to interact with the content, making them better prepared to contribute to collaborative peer-learning activities. This finding is consistent with contemporary constructivist pedagogy, which views learning as an active social process involving continuous interaction, exploration, and reflection (Bursali & Yilmaz, 2019; Özelçi & Çaliskan, 2019; Yilmaz & Goktas, 2017). When students take ownership of their pre-class tasks, the classroom environment transforms into a dynamic laboratory of ideas rather than a hall for passive listening. This active engagement has been linked in recent literature to improved long-term retention of language structures and increased confidence in oral communication (Strohmyer, 2016; Turan & Akdag-Cimen, 2020; Zainuddin & Perera, 2019, 2019).

g. Student Satisfaction and Holistic Learning Experiences

Student satisfaction levels were found to be moderate to high, reinforcing the notion that FCL provides a superior overall learning experience compared to traditional methods for listening instruction. High satisfaction levels correlated closely with perceived improvements in understanding and newfound confidence in handling complex listening tasks. This relationship underscores the interconnectedness of affective factors in the SRL process, where positive emotional states fuel further self-regulatory efforts. However, instances of dissatisfaction recorded in this study emphasize the risk of "cognitive overload" if instructional materials are poorly managed. For example, when videos were excessively long or provided too close to class deadlines, students reported frustration and a decrease in willingness to participate. This supports the argument by Mayer & Estrella (2014); Rasheed et al. (2020) that video-based learning must be ergonomically designed, chunked into manageable segments, to foster self-regulation rather than exhaustion.

h. Implications for SRL and Flipped Classroom Pedagogy

The broad implications of these findings suggest that FCL is a powerful tool for developing SRL, but it must be accompanied by explicit training in self-regulation strategies. Students do not naturally possess skills in goal setting, time management, and self-monitoring; these must be nurtured alongside linguistic content. As noted by Mayer & Estrella (2014), the flipped model positively influences learner independence, yet this independence is fragile if students are not taught how to manage their newfound autonomy. Without a structured approach to teaching "how to learn," the shift to a flipped model may inadvertently widen the gap between high-achieving, self-motivated students and those who struggle with executive functioning. Recent studies by Saetang et al. (2023); Thongsri et al. (2025) further emphasize that teacher intervention in the form of feedback and strategy coaching remains essential even in the most "autonomous" flipped environments.

i. Contribution to Global EFL Literature

This study contributes to existing literature by providing empirical evidence on the role of flipped classrooms in supporting SRL for listening skills within an EFL context. Unlike previous studies focusing primarily on quantitative achievement scores, this research highlights the vital role of perceptions and affective responses in the learning process. The findings suggest that while challenges like internet stability and cognitive load remain, the

benefits of increased autonomy and active participation are significant. As observed in studies involving diverse learners, including those with disabilities (Andujar & Nadif, 2022) and those in traditional settings (Öztürk & Çakıroğlu, 2021), the flipped model consistently demonstrates a higher level of learning independence than traditional approaches. By integrating SRL strategies with the flipped model, educators can empower students to take full control of their linguistic development.

4. CONCLUSION

This study offers distinct pedagogical and conceptual contributions to the field of flipped language learning and SRL development within the non-Western EFL context. Rather than presenting broad, normative assertions about educational technology, this research crystallizes two specific operational insights. First, regarding flipped listening classroom practices, the study demonstrates that to mitigate the cognitive load imposed by the "transient" nature of foreign audio input, instructors must abandon the use of long, continuous lecture videos. Instead, they must apply an "ergonomic chunking strategy", segmenting listening content into micro-modules under 7 minutes, explicitly paired with predictive schema-activation prompts. Second, concerning SRL development, the findings reveal that learner autonomy is not a pre-existing trait but an infrastructure-dependent and heavily scaffolded psychological state. In contexts like Indonesia, which feature a significant digital divide and teacher-dependent histories, the transition to flipped models must include a formal "SRL induction phase." During this phase, instructors must explicitly teach time-management, environmental structuring, and metacognitive listening repair strategies alongside the linguistic curriculum. Ultimately, this study reframes the flipped classroom not merely as a tool for content delivery, but as a highly situated socio-technical intervention that requires careful alignment between institutional technological equity and targeted psychological scaffolding.

The implication of the integration of self-regulated learning strategies within the flipped classroom framework has proven to have a beneficial impact on students' foreign language proficiency and learning independence. By strengthening active participation and autonomy in the learning process, educators can leverage these findings to further enhance the efficacy of flipped classroom approaches. Future research is suggested to explore the use of AI tools in personalizing pre-class materials to reduce cognitive load and enhance individual student engagement. Ultimately, the success of this model depends heavily on the balance between technological innovation and the psychological readiness of the learner, demanding a more empathetic and structured pedagogical approach. Transforming digital era challenges into opportunities for lifelong learning is an ultimate goal achievable through the synchronization of meticulous instructional design and the development of students' self-regulatory capabilities.

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