



Students' Experiences of Readiness and Learners' Autonomy in an Indonesian EFL Flipped Classroom

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Article Info	Abstract
Received: 2026-07-06 Revised: 2026-09-08 Accepted: 2026-09-08 Keywords: <i>flipped classroom;</i> <i>learners' autonomy;</i> <i>readiness;</i> <i>EFL</i> DOI: 10.24256/ideas.v14i2.11669 Corresponding Author: Nurul Fitriani nurulfitriani.2024@student.uny.ac.id English Education Study Program, Universitas Negeri Yogyakarta, Indonesia	<i>This qualitative case study examined how Grade 10 students in an Indonesian senior high school English as a Foreign Language (EFL) flipped classroom experienced readiness and learners' autonomy at the same time, an interaction that previous studies have rarely explored together. A case study design was chosen because it allowed for an in-depth exploration of students' own perspectives within their actual classroom setting. Nine students, purposively selected from high, moderate, and low readiness categories based on an initial questionnaire, took part in semi-structured interviews, which were further supported by classroom observations, and the data were analyzed using thematic analysis. The findings showed that students' readiness was shaped by their digital familiarity, their understanding of instructional directions, and their engagement with pre-class materials, while learners' autonomy was reflected in how they regulated their own learning, made use of available resources, and took responsibility for both individual and collaborative tasks. Several challenges also emerged, including digital distractions, difficulty comprehending English-medium materials, reliance on external support, and technical or environmental constraints. Taken together, the findings suggest that readiness and learners' autonomy develop together and shift according to each student's circumstances, offering practical implications for EFL teachers who wish to design flipped classroom activities that scaffold students more effectively toward independent learning.</i>

1. Introduction

The rapid advancement of technology has transformed educational practices from teacher-centered instruction toward learner-centered approaches that encourage active participation, collaboration, and independent learning. In 21st-century education, students are expected not only to acquire knowledge but also to develop critical thinking, problem-solving, and self-directed learning skills (Trilling & Fadel, 2009; OECD, 2019). In English as a Foreign Language (EFL) contexts, this shift matters even more because students often have limited exposure to English beyond the classroom, so instructional approaches need to give them more opportunities to engage in their own learning while gradually becoming more independent.

One instructional approach that supports learner-centered learning is the flipped classroom, in which instructional materials are delivered before class through digital platforms, videos, or other online resources, while classroom time is devoted to discussion, collaboration, and problem-solving activities (Lage et al., 2000; Bergmann & Sams, 2012). In the Indonesian EFL context, flipped classroom implementation takes place under particular classroom conditions, including limited instructional hours for English, uneven access to digital devices and stable internet connections, and students who are more accustomed to teacher-directed instruction than to independent study (Lengkanawati, 2017; Haerazi et al., 2026). These conditions mean that the success of flipped learning in Indonesian senior high schools depends not only on how well the model itself is designed, but also on students' readiness to engage with pre-class materials and their autonomy in managing learning outside the classroom.

Two theoretical perspectives help explain these processes. Zimmerman's (2002) model of self-regulated learning describes learning as a cycle of forethought, performance, and self-reflection, in which learners plan how to approach a task, monitor themselves while carrying it out, and evaluate the outcome afterward. This cycle is directly relevant to flipped classrooms, since students are expected to plan and complete pre-class learning largely on their own before receiving direct teacher guidance. Learners' autonomy, in turn, is understood here following Holec (1981), Little (2007), and Benson (2011) as learners' capacity to take responsibility for their own learning, a capacity that develops gradually through interaction with teachers, peers, and learning resources rather than through complete independence.

Bringing these two perspectives together, this study understands readiness and learners' autonomy as connected processes that unfold as students move through the flipped classroom cycle: readiness shapes how well students enter and prepare for pre-class learning, learners' autonomy shapes how they manage that learning once it begins, and both are continuously tested by the digital, cognitive, and contextual challenges students encounter along the way. This relationship forms the conceptual framework that guides the present study.

Figure 1 Conceptual Framework of Readiness and Learners' Autonomy in Flipped Classroom Learning

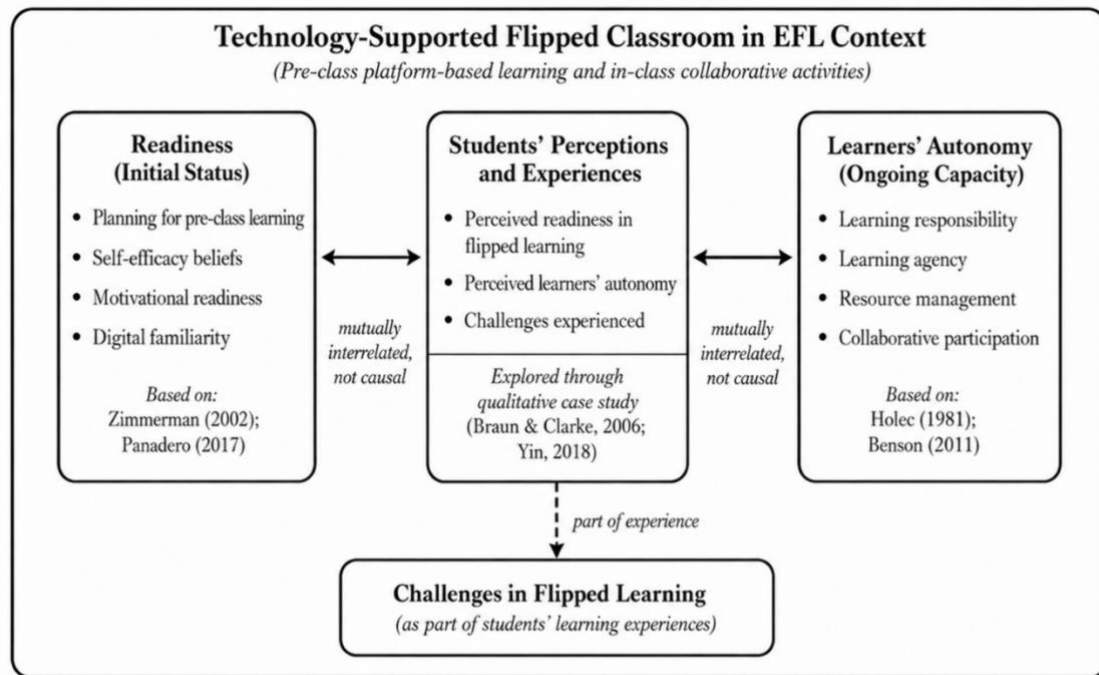


Figure 1. Conceptual Framework of the Study

As shown in Figure 1, students' readiness shapes their entry into pre-class learning, learners' autonomy shapes how they manage that learning, and both are shaped in turn by the challenges students encounter throughout the process.

Empirical research on flipped classrooms has grown considerably, though much of it approaches readiness and autonomy in fairly narrow ways. Several quantitative and quasi-experimental studies report that flipped learning improves students' engagement, participation, motivation, and achievement (Hung, 2015; Lo & Hew, 2017; Zainuddin & Halili, 2016), and some link flipped instruction to measurable gains in learners' autonomy (Aksoy & Tulgar, 2023; Alizadeh, 2024). These studies are useful for establishing that flipped learning is generally associated with positive outcomes, but because they typically measure readiness and autonomy as fixed variables at a single point in time, they say little about how these processes actually develop for students as they experience flipped learning. Qualitative studies offer a richer picture, though there are fewer of them. Zainuddin (2017), for example, found that Indonesian first-year college students experienced flipped learning unevenly, with some adapting more easily than others. Even so, this qualitative work has largely treated readiness and learners' autonomy as separate topics rather than examining how the two interact within the same learning experience.

This gap has become more pressing as students increasingly turn to AI tools such as ChatGPT to support their independent learning. Recent studies suggest that AI-assisted learning can support learners' self-regulation and autonomy when students use these tools strategically, but that this kind of autonomous use does not emerge automatically and still depends on pedagogical guidance (Zhang, 2025; Keumala et al., 2026). Within Indonesian senior high schools specifically, Keumala et al. (2026) found that students' autonomous use of ChatGPT varied considerably from one school to another, ranging from reflective, initiative-driven use to passive, teacher-dependent use. These findings suggest that technology-supported environments, including flipped classrooms, can produce quite

uneven experiences of readiness and autonomy among students, which strengthens the case for examining the two constructs together and from students' own perspectives.

Building on this gap, the present study addresses the following research questions:

1. How do students perceive their readiness in an Indonesian EFL flipped classroom?
2. How is learners' autonomy experienced by students during flipped classroom learning?
3. What challenges do students encounter in maintaining readiness and learners' autonomy throughout the learning process?

The novelty of this study lies in its focus on students' own perspectives, treating readiness and learners' autonomy not as fixed learner traits but as processes that develop together and shift depending on the demands of each learning situation. By examining these two constructs jointly within an Indonesian EFL flipped classroom, this study offers a more integrated understanding of flipped classroom implementation and provides practical insights for designing learning environments that better support students as they move toward independent learning.

2. Method

This study employed a qualitative case study design to explore students' experiences of readiness and learners' autonomy in an English as a Foreign Language (EFL) flipped classroom. A qualitative case study was considered appropriate because it enabled an in-depth exploration of students' perspectives within a real-life instructional context (Creswell & Poth, 2018; Yin, 2018). The study was conducted at a public senior high school in Yogyakarta, Indonesia, where the English teacher had implemented a flipped classroom model using Google Classroom to deliver pre-class learning materials, while classroom sessions focused on discussion, collaboration, and communicative language activities. Institutional permission to conduct the study was obtained from the school prior to data collection, and all participants took part voluntarily after being informed about the purpose of the study and the confidentiality of their responses.

The participants were Grade 10 students enrolled in English classes that implemented flipped learning. Participant selection was conducted in two stages. First, a questionnaire was administered to approximately 90 students from three classes to obtain an initial overview of students' readiness, learners' autonomy, and learning challenges. The questionnaire was adapted from Luo and Gan's (2022) flipped English learning readiness scale and Melvina et al.'s (2021) learner autonomy questionnaire, with several items reworded and three new items added to better reflect the pre-class and in-class demands of the flipped classroom setting in this study.

The questionnaire consisted of 24 items organized into eight aspects: planning, time management, motivation, and technological readiness (informed by Zimmerman's, 2002, self-regulated learning framework and Luo & Gan, 2022), which addressed RQ1; responsibility, learning initiative, and decision-making (informed by Holec, 1981, and Benson, 2011), which addressed RQ2; and learning barriers, which addressed RQ3. The questionnaire functioned solely as a screening instrument and was not analyzed as the primary research data. Based on the questionnaire scores, students were grouped into high, moderate, and low categories to support maximum variation sampling. Subsequently, nine students, consisting of three participants from each category, were purposively selected for interviews to capture diverse learning experiences (Creswell & Poth, 2018; Palinkas et al., 2015).

Data were collected through questionnaires, semi-structured interviews, and classroom observations. The questionnaire served only to support participant selection. Semi-structured interviews constituted the primary source of qualitative data, allowing participants to describe their experiences of readiness, learners' autonomy, and the challenges they encountered during flipped classroom learning. The interview guide was developed based on the frameworks of Zimmerman (2002), Holec (1981), Benson (2011), and Panadero (2017), and consisted of 15 main questions with accompanying probing questions covering online learning readiness, technical proficiency, planning, control over time and cognitive processes, decision-making, self-reflection, motivational regulation, and the internal, technical, and teacher-related challenges students faced (see Appendix A for sample interview questions). Each interview lasted approximately 30–45 minutes, was conducted in Indonesian, audio-recorded with participants' consent, and transcribed verbatim.

Classroom observations were conducted after the interviews using a non-participant observation approach to provide contextual information and to corroborate participants' reported experiences during actual classroom activities. The observation used a checklist of 15 behavioral indicators covering three areas aligned with the research questions: initial preparation and technical readiness (RQ1), self-directed behavior, resource management, and peer scaffolding (RQ2), and teacher dependency, digital distraction, and participation barriers (RQ3). Field notes were taken during each observation session to record these behaviors (see Appendix B for the observation checklist).

The data were analyzed using thematic analysis following Braun and Clarke (2006). Interview transcripts served as the primary dataset, while observation notes were used to support data interpretation. The analysis involved familiarizing with the data, generating initial codes, identifying and reviewing themes, defining and naming themes, and producing the final analytical report. To enhance the trustworthiness of the findings, methodological triangulation was employed by integrating interview and observation data, allowing the researcher to compare participants' reported experiences with their observed classroom practices (Lincoln & Guba, 1985). Credibility was further strengthened through peer debriefing, in which the coding process and emerging themes were discussed with the research supervisor to check for consistency and reduce researcher bias.

3. Result

The findings are organized into three major themes corresponding to the research questions: (1) students' readiness in the flipped classroom, (2) learners' autonomy in the flipped classroom, and (3) challenges in maintaining readiness and learners' autonomy. The themes were generated through thematic analysis of interview and classroom observation data. Table 1 summarizes the themes and sub-themes identified in this study. Pseudonyms SH1–SH3, SM1–SM3, and SL1–SL3 are used to refer to participants from the high, moderate, and low readiness categories, respectively.

Table 1. Themes and Sub-themes of the Findings

Research Question	Theme	Sub-themes
RQ1	Students' Readiness in the Flipped Classroom	(1) Digital Familiarity and Technical Readiness; (2) Cognitive Readiness through Instructional Understanding; (3) Pre-Class Exposure as a Foundation for Preparedness
RQ2	Learners' Autonomy in the Flipped Classroom	(1) Managing Learning Activities During Flipped Learning; (2) Proactive Resource Management and Peer Support; (3) Collaborative Responsibility in Learning Activities
RQ3	Challenges in Maintaining Readiness and Learners' Autonomy	(1) Digital Distractions and Motivational Challenges; (2) Difficulties in Comprehending Independent Learning Materials; (3) Teacher Dependency and Participation Hesitation; (4) External Technical and Environmental Constraints

Students' Readiness in the Flipped Classroom

Digital Familiarity and Technical Readiness. All participants had prior experience using Google Classroom, mostly dating back to online learning during the COVID-19 pandemic, but they differed in how they used this familiarity during flipped learning. Participants in the high category described the platform as fully integrated into their study routine. As SH2 explained, "I have actively used Google Classroom since junior high school... Usually, the teacher sends the materials and assignments there first, then we study and complete them at home." Observations supported this: SH1 was seen opening learning materials before the teacher gave instructions, while SH3 navigated the platform smoothly and had even prepared a backup internet connection.

Participants in the moderate and low categories also reported being familiar with the platform, but mainly for functional purposes. SM2 noted using it "mostly [for] the ones related to learning activities, such as submitting assignments, downloading materials, and accessing videos," while SL1 admitted, "I used Google Classroom before, but mostly I just followed what my classmates did." Consistent with this, SL1 and SL2 were observed pausing after opening assignments and glancing at peers' screens before proceeding. Overall, technical familiarity was shared across groups, but only in the high category did it translate into confident, self-initiated engagement.

Cognitive Readiness through Instructional Understanding. Readiness was also shaped by how confidently students understood instructions, particularly when materials were presented in English. SH1 admitted that "around 90% of the teacher's instructions are in English, sometimes it becomes difficult," but generally resolved this by rereading materials, a pattern confirmed by observation, where SH1 and SH2 were seen pausing to reread instructions before continuing without major delays. Participants in the moderate category described a stronger dependence on clarity: SM1 said, "sometimes I still get confused about what I am actually supposed to do. When that happens, I usually wait for additional explanations from the teacher."

This matched observation data showing SM1 postponing a discussion activity until the teacher repeated the instructions. The pattern was more pronounced among low-category participants; SL1 explained needing "to read them several times before understanding what I was supposed to do," while SL2 relied on friends or the teacher "before I feel sure about the task." SL1 was similarly observed spending more time rereading instructions after other students had already started.

Pre-Class Exposure as a Foundation for Preparedness. Engagement with pre-class materials also varied in depth. High-category participants treated pre-class exposure as genuine preparation rather than a formality; SH1 noted, "when I come to class, I usually already understand both the material and the assignment," and was observed already seated with materials ready before the teacher entered. Moderate participants recognized its usefulness but engaged less consistently, as SM2 put it, "when I have read the materials beforehand, it is easier to follow the discussion in class," though observation showed SM2 and SM3 bringing prepared notes without the same depth of prior engagement seen in the high group. Low-category participants generally accessed materials only briefly; SL1 said, "when the materials are uploaded, I usually open them first, but only briefly," which aligned with observations of SL2 and SL3 listening more than speaking and rarely taking initiative during review sessions.

In summary, students' readiness extended beyond having access to digital tools. It reflected how confidently they interpreted instructions and how deliberately they used pre-class materials to prepare for classroom engagement, with high-category participants consistently showing more proactive patterns than their moderate- and low-category peers.

Learners' Autonomy in the Flipped Classroom

Managing Learning Activities. High-category participants described consistent personal routines for managing their study time. SH2 said, "I usually do it on the same night, so the next day I only need to review it briefly," while SH3 described actively removing distractions: "I try to keep away things that can distract me, such as my phone or social media." Observation confirmed that SH1–SH3 began tasks with minimal reminders and that SH2 reviewed completed work before submitting it. Moderate participants showed less consistency; SM1 admitted, "usually I only start studying when the deadline is close and I begin to panic," which was reflected in observations showing this group needing more time to become fully engaged. Low-category participants described their study routines as dependent on mood, as SL2 explained, "if I'm in a good mood, I study, but if I'm not, I don't feel like doing it," consistent with SL1–SL3 being observed listening more than participating and occasionally needing reminders.

Proactive Resource Management and Peer Support. When facing difficulties, high-category participants tended to search independently before asking the teacher. SH1 said, "I usually search for it on Google or YouTube first," and SH2 added, "sometimes I use ChatGPT to help explain the material again... because the language is simpler." Observation showed SH1 and SH3 actively searching for references during discussions. Moderate participants leaned more on peers, as SM3 explained, "if I'm confused, I usually ask my friends first," while observation showed SM1 and SM2 also browsing for information, though less systematically than the high group. Low-category participants tended to wait for clarification rather than search independently; SL2 said, "if I don't understand it, I usually wait until it is explained again," which matched observations of SL2 and SL3 mostly listening and responding only when directly asked.

Collaborative Responsibility in Learning Activities. In group work, high-category participants often took on leadership roles. SH2 described, "since I am usually the class leader, I often become the leader during group discussions as well... I give them specific tasks and clear directions," and was observed leading discussions and presenting confidently. Moderate participants engaged more conditionally; SM1 explained, "if I understand the topic, I usually join the discussion. However, if I am still unsure... I prefer to listen first," consistent with SM1–SM3 showing variable participation depending on their confidence with the material. Low-category participants more often followed rather than led; SL2 said, "usually, I just follow the discussion results that have already been agreed on by the group," matching observations of SL1–SL3 mostly listening and contributing only when prompted.

Taken together, learners' autonomy was expressed through how students managed their own learning, sought out resources, and took ownership within group settings, with autonomy appearing more consistently enacted among high-category participants and more situationally dependent among moderate- and low-category participants.

Challenges in Maintaining Readiness and Learners' Autonomy

Digital Distractions and Motivational Challenges. Motivational fluctuations affected students across all groups. Even high-category participants were not immune; SH3 admitted, "sometimes I start feeling bored or lose focus while studying. Usually, I take a short break for about five to ten minutes... by watching TikTok or opening social media," though observation showed SH1–SH3 free of visible digital distractions during class and using ChatGPT for learning support rather than unrelated purposes. Moderate participants described being more dependent on their environment; SM2 said, "when the environment is noisy or distracting, it becomes difficult for me to focus," and SM1 and SM3 were occasionally observed distracted by non-academic phone activity before returning attention to the lesson. Low-category participants reported the most difficulty; SL1 explained, "sometimes I intend to study, but I get distracted by other things and end up postponing it," and SL1 and SL2 were similarly observed opening non-academic apps such as WhatsApp and Instagram during discussions.

Difficulties in Comprehending Independent Learning Materials. Understanding English-medium materials independently was a recurring difficulty. High-category participants generally worked through it themselves; SH2 said, "I try to understand all the materials first by reading them repeatedly until I understand... if there is something I do not understand, I search for the explanation by myself." Moderate participants needed more support, as SM2 explained, "when the materials and instructions are not clear, I become unsure whether I am completing the task correctly or not," while observation showed SM1 waiting for peers to speak before contributing. Low-category participants experienced the greatest difficulty; SL1 said the instructions "felt ambiguous, especially when everything was written in English," and SL1–SL3 were observed entering discussions with limited prior understanding of the reviewed materials.

Teacher Dependency and Participation Hesitation. Reliance on teacher confirmation varied notably by group. High-category participants treated teacher input as supplementary; SH1 explained, "if there is something I am not sure about, I usually try to figure it out myself first... if I am still confused after searching for information, then I ask the teacher." Moderate participants relied more directly on the teacher, as SM3 put it, "when the teacher explains it directly, it is usually easier for me to understand than studying it by myself." The tendency was strongest among low-category participants; SL2 admitted, "I usually understand it better when it is explained directly rather than when I study it on my own," and SL1 added, "sometimes I am afraid of giving the wrong answer, so I prefer to wait until my friends or the teacher explain it first." Observation supported this pattern, with

SL1–SL3 mostly listening and contributing only after peers or the teacher provided clarification.

External Technical and Environmental Constraints. Beyond personal factors, external conditions also shaped students' experiences. Connectivity issues were reported across groups; SH2 described how "sometimes the internet signal is not good, so the video takes a long time to load," though observation found no significant disruption during his classroom sessions. Moderate participants pointed to their home environment, as SM2 explained, "the situation at home is not really supportive for studying... it becomes difficult for me to focus." Low-category participants experienced compounded effects: SL1 said, "sometimes when the internet connection is bad, I do not open the materials first," and SL3 added that it was "difficult to focus on studying at home because there are many distractions." Observation showed SL1 and SL2 relying on peer explanations before becoming actively involved in classroom tasks, consistent with disrupted pre-class preparation.

Overall, these challenges show that maintaining readiness and learners' autonomy in the flipped classroom depended not only on students' individual learning behaviors but also on contextual factors that shaped their opportunities to engage effectively in independent learning.

4. Discussion

The findings demonstrate that students' experiences in the flipped classroom were shaped by the dynamic interaction between readiness, learners' autonomy, and the contextual challenges associated with technology-supported learning. Rather than functioning as fixed learner characteristics, readiness and learners' autonomy appeared to develop differently across students depending on how they prepared for learning, managed learning activities, and responded to various instructional and environmental demands.

Readiness as a Dynamic Process of Preparation

The first major finding indicates that readiness in the flipped classroom extended beyond students' technical ability to access digital learning platforms. Although all participants were familiar with Google Classroom, meaningful differences emerged in how they used pre-class learning opportunities to prepare for classroom participation. These findings support the flipped learning principles proposed by Bergmann and Sams (2012), who argue that moving content delivery outside the classroom allows students to arrive better prepared for active learning.

However, the present study complicates this claim rather than simply confirming it: providing learning materials before class did not, by itself, produce equivalent readiness among students, since students with lower readiness still relied heavily on teacher explanations even when the same materials were equally accessible to everyone. This pattern diverges somewhat from quantitative studies such as Luo and Gan (2022), which treated readiness largely as a function of platform exposure and technological access. In this study, technical exposure was fairly uniform across participants, yet readiness still varied considerably, suggesting that cognitive and motivational factors, rather than technical access alone, may account for a larger share of the variation than earlier quantitative work has assumed.

The findings can also be interpreted through Zimmerman's (2002) forethought phase of self-regulated learning. Students who consistently reviewed learning materials before class demonstrated planning, task analysis, and preparatory behaviors characteristic of self-regulated learners, though these behaviors were unevenly distributed across participants, suggesting that readiness is a developmental process rather than a stable learner attribute.

Instructional clarity also emerged as an important factor, with English-medium instructions occasionally creating additional cognitive demands for students with lower readiness. This finding supports Abeysekera and Dawson (2015), who emphasize that flipped classroom success depends on how learning expectations are communicated. It also resonates with Piliu et al. (2025), who found that Indonesian EFL students struggled with independent content comprehension and unequal access to reliable technology, and it extends their teacher-reported account by showing, from students' own perspectives, how these struggles are compounded by socioeconomic disparities in digital access.

Participants who described unstable internet connections or unsupportive home study environments were disproportionately from the moderate and low readiness groups, indicating that readiness in this study was shaped not only by individual cognitive and motivational factors but also by unequal access to stable connectivity and conducive learning spaces at home, a pattern consistent with broader evidence of digital divides in Indonesian education (Piliu et al., 2025).

Learners' Autonomy as a Negotiated Learning Process

The second major finding demonstrates that learners' autonomy developed through students' management of learning activities, strategic use of learning resources, and participation in collaborative classroom practices. This finding aligns with Holec's (1981) conception of learners' autonomy as the capacity to take responsibility for one's own learning, and with Zimmerman's (2002) performance phase, during which learners regulate attention and manage distractions while completing tasks.

A notable pattern in the present study was students' use of AI-based tools, particularly ChatGPT, as part of their independent learning process. Participants with higher autonomy described turning to ChatGPT when explanations from textbooks or videos felt too difficult, valuing it for producing simpler, more accessible explanations. This finding adds a technology-specific dimension that earlier autonomy frameworks (Holec, 1981; Benson, 2011) did not anticipate, and it aligns with recent evidence that AI tools can support learners' self-regulation and autonomy when used strategically (Zhang, 2025).

At the same time, the findings caution against assuming that access to AI tools automatically produces autonomous behavior. Consistent with Keumala et al.'s (2026) comparison of ChatGPT use across Indonesian senior high schools, autonomous and reflective use of AI in this study was concentrated among students who already showed stronger self-regulation in other areas, while students with lower autonomy tended to wait for teacher explanations rather than turning to AI tools independently. This suggests that AI tools amplify existing differences in learners' autonomy rather than leveling them, which has direct implications for how teachers introduce such tools in flipped classrooms.

Collaborative learning further illustrates the negotiated nature of autonomy. Students with higher autonomy frequently assumed leadership roles, whereas students in the moderate group demonstrated what may be described as socially supported autonomy, becoming more active after interacting with peers. These findings reinforce Little's (2007) argument that autonomy develops through social interaction rather than through individual learning alone, and they diverge from studies that frame autonomy primarily as an individual trait measured through self-report scales (e.g., Aksoy & Tulgar, 2023): in this study, autonomy was rarely exercised in isolation and was instead visibly co-constructed with peers and, increasingly, with AI tools.

Challenges in Maintaining Readiness and Learners' Autonomy

The final finding demonstrates that maintaining readiness and learners' autonomy remained challenging despite the learner-centered nature of flipped classroom learning. Motivational inconsistency, difficulties comprehending materials independently, continued

dependence on teacher guidance, and external technical and environmental constraints all emerged as interconnected challenges.

Students' continued dependence on teacher guidance deserves closer attention, since it points directly to the role of teacher scaffolding in flipped classroom learning. Rather than indicating an absence of learners' autonomy, this dependence appeared to function as a transitional stage: participants with lower autonomy explicitly described waiting for teacher confirmation before trusting their own understanding, while participants with higher autonomy still consulted teachers, but only after exhausting independent strategies first. This pattern suggests that teacher scaffolding facilitates the transition toward autonomy specifically through its timing and function, not merely its presence. When teacher support served as a first resort, it appeared to reinforce dependency; when it served as a fallback after genuine independent effort, it appeared to support the gradual internalization of self-regulated strategies. This distinction refines Little's (2007) claim that autonomy develops through interaction with teachers, by showing that the sequencing of that interaction, whether it precedes or follows a student's own attempt, may matter as much as the interaction itself.

External contextual constraints, including unstable internet access and unsupportive home environments, further shaped students' readiness and autonomy, particularly among moderate- and low-category participants. This supports Lo and Hew (2017) in showing that flipped classroom effectiveness depends on infrastructure and contextual conditions, and it echoes Pilu et al.'s (2025) finding that unequal access to devices and connectivity remains a persistent obstacle in Indonesian EFL flipped learning. Read together with the socioeconomic patterning of these constraints noted earlier, this suggests that flipped classroom models designed without accounting for students' home learning conditions risk reproducing existing inequalities rather than equalizing opportunities for independent learning, a concern that quantitative studies focused on average learning gains have generally not been positioned to detect.

Practical Implications for EFL Teachers

These findings suggest several practical directions for teachers implementing flipped classrooms in similar settings. First, because instructional clarity strongly shaped students' readiness, teachers might provide bilingual or simplified instructions for pre-class materials, particularly for students who are still developing confidence in English-medium content. Second, given that teacher scaffolding appeared most effective when it followed rather than preceded students' own attempts, teachers could consider structuring pre-class tasks so that students are explicitly asked to try a strategy or record a question before class, reserving direct explanation for genuine sticking points rather than as a default first step. Third, since AI tools such as ChatGPT appeared to benefit students who already had stronger self-regulation, teachers may need to provide more explicit guidance on productive AI use, such as modeling how to verify or cross-check an AI-generated explanation, for students with lower autonomy, so that these tools narrow rather than widen gaps between students.

Finally, because socioeconomic and connectivity constraints disproportionately affected moderate- and low-readiness students, teachers might build in offline or low-bandwidth alternatives for accessing pre-class materials, such as downloadable files or printed summaries, to reduce the extent to which flipped learning outcomes depend on students' home digital access.

Taken together, these findings suggest that readiness and learners' autonomy in flipped classroom learning are shaped by an ongoing interaction between individual learning behaviors, teacher scaffolding, technology use, and contextual conditions. This

study contributes to the growing literature by demonstrating that, within Indonesian secondary EFL contexts, readiness and learners' autonomy should be understood as processes that develop unevenly across students and are shaped as much by structural conditions, such as digital access and the sequencing of teacher support, as by individual learner disposition.

5. Conclusion

This study was limited to nine participants in a single EFL classroom at one public senior high school, and this single-site design has direct implications for the transferability of the findings. Because the school's flipped classroom implementation, teacher scaffolding practices, and students' socioeconomic circumstances were specific to this context, the patterns identified here, particularly around digital access and teacher dependency, may not generalize to schools with different resource levels, teacher practices, or regional infrastructure. Readers in similarly resourced Indonesian senior high schools may find the findings more directly applicable than readers in settings with substantially different technological or socioeconomic conditions.

Future research may examine perceived readiness and learners' autonomy across multiple schools with varying resource levels, or across different educational levels, to establish whether the patterns identified here hold more broadly. A longitudinal design would also be valuable, since the present study captured students' readiness and autonomy at a single point in the school year; following the same students over a longer period could clarify whether the dependency patterns observed here genuinely represent a transitional stage toward autonomy, as this study suggests, or a more persistent pattern that requires more sustained instructional intervention. Future studies may also investigate instructional strategies, including structured AI-use guidance and scaffolding sequencing, that better support students in overcoming linguistic, motivational, and technological challenges in technology-supported flipped classrooms.

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