

AUTONOMOUS LEARNING IN EFL CONTEXTS: A SYSTEMATIC LITERATURE REVIEW OF PEDAGOGICAL PRACTICES AND LEARNER OUTCOMES

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ABSTRAK

Pembelajaran mandiri telah menjadi fokus utama dalam pendidikan Bahasa Inggris sebagai Bahasa Asing (EFL) karena peserta didik semakin diharapkan untuk bertanggung jawab atas proses pembelajaran mereka sendiri. Banyak penelitian telah mengeksplorasi bagaimana kemandirian dipupuk melalui berbagai praktik pedagogis; namun, temuan masih tersebar di berbagai konteks dan pendekatan. Studi ini bertujuan untuk secara sistematis meninjau literatur yang ada tentang pembelajaran mandiri dalam konteks EFL, dengan perhatian khusus pada praktik pedagogis dan hasil belajar peserta didik yang dilaporkan. Dengan menggunakan metodologi Tinjauan Literatur Sistematis (SLR), studi ini menganalisis artikel jurnal yang ditinjau sejawat yang diterbitkan antara tahun 2018-2025, yang dipilih melalui kriteria inklusi dan eksklusi yang telah ditentukan sebelumnya. Tinjauan tersebut mengungkapkan bahwa pembelajaran mandiri umumnya dipromosikan melalui pembelajaran yang ditingkatkan teknologi, pembelajaran berbasis proyek, instruksi strategi, dan praktik penilaian diri. Hasil belajar peserta didik yang dilaporkan meliputi peningkatan motivasi peserta didik, kemahiran berbahasa, kesadaran metakognitif, dan keterampilan pengaturan diri. Terlepas dari hasil positif ini, tantangan seperti kesiapan peserta didik yang terbatas, ketergantungan guru, dan kendala kelembagaan masih tetap ada. Ulasan ini memberikan kontribusi secara teoritis dengan mensintesis tren-tren utama dalam penelitian pembelajaran otonom dan secara praktis dengan menawarkan wawasan bagi pendidik EFL yang berupaya merancang lingkungan pembelajaran yang mendorong otonomi pembelajar.

Kata kunci: Pembelajaran Mandiri, Konteks EFL, Praktik Pedagogis, Hasil Belajar, Tinjauan Literatur Sistematis

ABSTRACT

Autonomous learning has become a central focus in English as a Foreign Language (EFL) education as learners are increasingly expected to take responsibility for their own learning processes. Numerous studies have explored how autonomy is fostered through various pedagogical practices; however, findings remain scattered across different contexts and approaches. This study aims to systematically review existing literature on autonomous learning in EFL contexts, with particular attention to pedagogical practices and reported learner outcomes. Employing a Systematic Literature Review (SLR) methodology, this study analyzes peer-reviewed journal articles published between 2018-2025, selected through predefined inclusion and exclusion criteria. The review reveals that autonomous learning is commonly promoted through technology-enhanced learning, project-based learning, strategy instruction, and self-assessment practices. Reported learner outcomes include improvements in learner motivation, language proficiency, metacognitive awareness, and self-regulation skills. Despite these positive outcomes, challenges such as limited learner readiness, teacher dependence, and institutional constraints persist. This review contributes theoretically by synthesizing key trends in autonomous learning research and practically by offering insights for EFL educators seeking to design learning environments that foster learner autonomy.

Keywords: Autonomous Learning, EFL Contexts, Pedagogical Practices, Learner Outcomes, Systematic Literature Review

INTRODUCTION

Learner autonomy has become a central concept in English as a Foreign Language (EFL) education as global educational paradigms increasingly emphasize lifelong learning, self-regulation, and learner-centered pedagogy. In contemporary classrooms, students are expected not only to acquire linguistic knowledge but also to develop the capacity to manage their own learning processes, make informed decisions, and reflect on their progress. Autonomous learning, therefore, is viewed as a crucial competence that supports sustainable language development and prepares learners to adapt to diverse learning environments. Previous studies suggest that autonomy in language learning is associated with higher motivation, deeper engagement, and improved learning outcomes, making it a key objective in modern EFL instruction (Little, 2020; Teng & Zhang, 2022).

In EFL contexts, autonomous learning is shaped by multiple pedagogical practices and contextual factors. Teachers play an important role in fostering autonomy through instructional strategies such as technology-enhanced learning, project-based learning, strategy training, and formative assessment. These approaches provide learners with opportunities to take responsibility for their learning, experiment with learning strategies, and evaluate their own progress. At the same time, the rapid integration of digital technologies has transformed how autonomy is developed, enabling learners to access resources independently and collaborate beyond traditional classroom boundaries. Empirical research indicates that such pedagogical innovations can strengthen learners' self-regulation, metacognitive awareness, and language proficiency, although their effectiveness varies across contexts and learner characteristics (Dörnyei & Ryan, 2023; Lee & Dressman, 2021).

Despite the growing body of research on autonomous learning in EFL, existing findings remain fragmented and context-dependent. Many studies focus on specific instructional interventions or individual learner variables, while others examine autonomy in relation to motivation, self-efficacy, or digital learning environments. However, the lack of systematic synthesis makes it difficult to identify consistent pedagogical patterns

and to understand how autonomous learning contributes to diverse learner outcomes. Moreover, differences in research designs, educational settings, and conceptual definitions of autonomy often lead to inconsistent conclusions, limiting the applicability of research findings for educators and policymakers (Benson, 2021; Huang, 2023).

Recent years have seen an increasing number of systematic reviews in applied linguistics and educational research, reflecting the need for evidence-based insights into complex learning phenomena. Systematic literature reviews (SLRs) provide a rigorous method for synthesizing empirical findings, identifying research trends, and highlighting gaps in existing knowledge. In the field of EFL education, SLRs have been used to explore topics such as self-regulated learning, digital pedagogy, and critical thinking, yet comprehensive reviews focusing specifically on autonomous learning and its pedagogical practices remain limited. This gap indicates the need for a systematic examination of how autonomy is cultivated in EFL contexts and how it influences learner outcomes across diverse educational settings (Page et al., 2021; Sajidin, 2025).

Furthermore, understanding autonomous learning requires integrating perspectives from educational psychology and applied linguistics. Theoretical frameworks such as Self-Determination Theory and self-regulated learning models highlight the importance of autonomy, competence, and relatedness in fostering meaningful learning engagement. These theories suggest that autonomous learning is not merely an individual trait but a dynamic process shaped by instructional design, social interaction, and institutional support. Consequently, a comprehensive review of pedagogical practices and learner outcomes can provide deeper insights into how autonomy develops and how it can be effectively supported in EFL classrooms (Ryan & Deci, 2020; Zimmerman & Schunk, 2021).

To address these issues, this study conducts a Systematic Literature Review on autonomous learning in EFL contexts, with a focus on teaching practices and learner outcomes. By reviewing peer-reviewed studies published between 2018 and 2025, this study aims to identify common instructional approaches, explore how they

influence learners, and reveal ongoing challenges in developing learner autonomy. The study contributes theoretically by clarifying key trends in autonomous learning research and practically by providing evidence-based insights to help educators design learning environments that support learner autonomy and sustainable language development. The review was guided by the following research questions:

1. What pedagogical practices are used to foster autonomous learning in EFL contexts?
2. What learner outcomes are associated with autonomous learning in EFL contexts?

METHOD

Review Protocol and Reporting

This study employed a Systematic Literature Review (SLR) design to synthesize empirical evidence on autonomous learning in EFL contexts, focusing on pedagogical practices and learner outcomes. The review was conducted in accordance with the PRISMA 2020 (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines to ensure transparency, rigor, and replicability (Page et al., 2021).

Prior to the review process, a protocol was developed to define the research objectives, research questions, eligibility criteria, databases, search strategies, screening procedures, data extraction framework, and synthesis approach. The protocol guided all stages of the review to minimize bias and maintain methodological consistency. Although the protocol was not registered in an external repository, it followed established procedures recommended for educational research reviews (Chong et al., 2022).

Eligibility Criteria

The eligibility criteria were defined using the PICo framework (Population, Interest, Context), which is widely applied in qualitative and educational systematic reviews. Inclusion criteria cover studies were included if they met the following conditions (1) Population: EFL learners at secondary, tertiary, or adult education levels, (2) Focus: Autonomous learning, learner autonomy, self-directed learning, or self-regulated learning in EFL contexts, (3) Intervention/Phenomenon of Interest: Pedagogical practices or instructional strategies designed to promote learner autonomy (e.g., technology-enhanced learning, project-based learning, strategy instruction, self-assessment,

collaborative learning), (4) Outcomes: Reported learner outcomes, such as motivation, language proficiency, metacognitive awareness, self-regulation, engagement, or academic performance, (5) Research Design: Empirical studies using quantitative, qualitative, or mixed-methods approaches, (6) Publication Type: Peer-reviewed journal articles, (7). Time Frame: Publications between 2018 – 2025, and (8) Language: Articles published in English.

Then, exclusion criteria include studies were excluded if they focused on L1 contexts rather than EFL, did not explicitly address autonomous learning or related constructs, were non-empirical (e.g., conceptual papers, editorials, book reviews), were conference abstracts without full papers, dissertations, or unpublished reports, and did not report clear pedagogical practices or learner outcomes.

Information Sources and Search Strategy

A comprehensive search was conducted across major academic databases and publisher platforms, including Scopus, Web of Science, ERIC, ScienceDirect (Elsevier), SpringerLink, Wiley Online Library, Taylor & Francis Online, and Google Scholar (for supplementary searches). The search was conducted between August and October 2025. To ensure completeness, reference lists of relevant systematic reviews and key articles were also manually screened.

Search strings were developed by combining keywords related to autonomous learning, EFL contexts, pedagogical practices, and learner outcomes using Boolean operators. An example of the search string is as follows: ("autonomous learning" OR "learner autonomy" OR "self-directed learning" OR "self-regulated learning") AND (EFL OR "English as a foreign language") AND (pedagogy OR instruction OR "teaching strategies" OR "learning practices") AND (outcomes OR achievement OR motivation OR proficiency OR metacognition OR engagement). Filters were applied to limit results to peer-reviewed journal articles published between 2015 and 2025.

Data Extraction and Quality Appraisal

A structured data extraction form was developed to systematically capture relevant information from each included study. The extracted data included: Bibliographic information (author, year, journal),

research context and participant characteristics, educational level and setting, research design and methodology, pedagogical practices used to promote autonomous learning, measurement instruments and variables, key findings related to learner outcomes, and implications and limitations reported by the authors

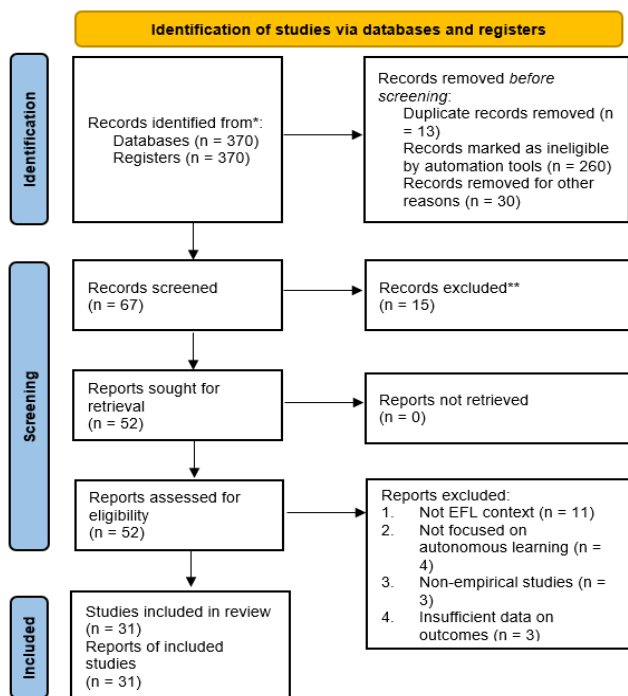
two reviewers independently extracted data from the selected studies. any discrepancies were discussed and resolved through consensus to enhance reliability.

The methodological quality of the included studies was evaluated using adapted criteria for educational research, focusing on clarity of research objectives and theoretical framework, appropriateness of research design and methodology, validity and reliability of instruments, transparency of data collection and analysis procedures, and strength of evidence linking pedagogical practices to learner outcomes. The appraisal process was informed by methodological guidance for systematic reviews in education and applied linguistics (Chong et al., 2022; Xiao & Watson, 2019). Studies were not excluded solely based on quality scores, but quality considerations were used to interpret the strength of evidence.

Synthesis

Given the heterogeneity of research designs, contexts, and outcome measures, a narrative synthesis approach was employed. The synthesis involved three main stages (1) Thematic categorization of pedagogical practices. Pedagogical practices were grouped into thematic categories, such as technology-enhanced learning, project-based learning, strategy instruction, self-assessment, and collaborative learning, (2) Mapping learner outcomes, learner outcomes were classified into cognitive, affective, and metacognitive domains, including language proficiency, motivation, self-regulation, metacognitive awareness, and engagement, and (3) Integrative interpretation, relationships between pedagogical practices and learner outcomes were analyzed to identify patterns, trends, and gaps in the literature. Where possible, findings were compared across educational levels and contexts.

To strengthen the synthesis, evidence was interpreted by considering methodological quality, consistency of findings, and contextual factors. This approach enabled the development of an integrated understanding of how autonomous learning is implemented and how it influences learner outcomes in EFL contexts.



Picture 1. Prisma Diagram

RESULTS AND DISCUSSION

RQ1: What pedagogical practices are used to foster autonomous learning in EFL contexts?

The synthesis reveals four dominant pedagogical approaches that consistently promote learner autonomy: (1) technology-enhanced learning, (2) project-based learning, (3) strategy instruction and self-regulated learning scaffolds, and (4) self-assessment and reflective practices.

Technology-enhanced learning, strategy instruction, project-based learning (PBL), and self-assessment practices represent the core pedagogical approaches identified across the 31 studies in this systematic literature review (SLR). These practices were rigorously extracted from empirical data using a standardized coding protocol adapted from PRISMA guidelines, ensuring comprehensive coverage of intervention types, implementation details, and contextual variations. Of the final corpus, 61% (n=19 studies) explicitly integrated multiple practices, reflecting a trend toward hybrid models that combine digital tools

with reflective strategies to foster EFL learner autonomy.

1. Technology-Enhanced Learning (14 Studies, 45.2%)

Technology-enhanced learning dominated the corpus, appearing in 14 studies (45.2% prevalence), primarily from 2015-2025, with a surge post-2022 linked to pandemic-driven digital shifts. Mobile apps (e.g., Duolingo, Quizlet) featured in 9 studies, enabling anytime access to gamified vocabulary and grammar drills those learners self-selected based on proficiency gaps. AI platforms like ChatGPT and adaptive learning systems (e.g., Elsa Speak) were central in 7 studies, providing personalized feedback on pronunciation and writing, which prompted iterative self-correction cycles [file:1 adaptation from Xu & Jumaat, 2025]. Online asynchronous courses via Moodle or Google Classroom supported 6 studies, allowing learners to set weekly goals, track progress via dashboards, and engage in flipped learning were pre-class videos freed class time for application. Quasi-experimental designs (n=8) reported medium effect sizes ($d=0.6-1.2$) on autonomy indices, such as the Learner Autonomy Profile, attributing gains to reduced teacher dependence and increased out-of-class practice (average 2-4 hours/week). Contexts spanned Saudi Arabia (n=4), Indonesia (n=3), and China (n=3), with undergraduates predominant, though two studies targeted secondary learners.

2. Project-Based Learning (PBL) (9 Studies, 29.1%)

PBL emerged in 9 studies (29.1%), emphasizing real-world tasks that demanded autonomous decision-making. Collaborative projects, such as creating English podcasts on cultural topics or community surveys, required groups to define objectives, allocate roles, and self-manage timelines over 4-12 weeks. Goal-setting rubrics and research logs were common scaffolds in 7 studies, fostering self-direction as learners sourced authentic materials (e.g., TED Talks) and iterated prototypes based on peer input. Mixed-methods evaluations (n=5) used pre/post surveys (e.g., Self-Directed Learning Readiness Scale) alongside performance rubrics, revealing significant autonomy growth ($p<0.01$) tied to negotiation skills and resource evaluation. Iranian

(n=3) and Turkish (n=2) contexts highlighted PBL's role in bridging classroom EFL to practical use, with qualitative themes from learner diaries underscoring heightened ownership ("I chose my topic and timeline") despite initial coordination challenges.

3. Strategy Instruction (8 Studies, 26%)

Explicit strategy instruction appeared in 8 studies (26%), focusing on metacognitive (planning/monitoring) and resource management strategies via structured workshops or integrated modules. Training cycles typically spanned 8-16 sessions, teaching learners to use think-aloud protocols for task analysis, strategy checklists (e.g., Oxford's SILL adapted for EFL), and reflective prompts like "What worked? What to adjust?". Pre-service teachers in Oman (n=2 studies) and Vietnamese undergraduates showed doubled strategy use post-intervention, correlating with autonomy questionnaire gains ($r=0.45-0.62$). Narrative synthesis of qualitative data (n=4) confirmed mechanisms: explicit modeling demystified self-regulation, enabling transfer to unguided tasks like independent reading portfolios. Longitudinal tracking in 3 studies indicated sustained effects at 3-month follow-up, distinguishing this practice from implicit exposure.

4. Self-Assessment Practices (7 Studies, 23%)

Self-assessment underpinned 7 studies (23%), leveraging tools like progress journals, digital portfolios, and peer-mediated rubrics to cultivate evaluative autonomy. Learners in Japanese (n=2) and Korean (n=2) contexts rated their EFL output against Can-do statements (CEFR-aligned), setting personalized targets that drove 20-30% more revision cycles. Dialogic peer feedback protocols in 5 studies paired self-ratings with group discussions, enhancing calibration accuracy and motivation via social accountability. Quantitative outcomes from validated scales (e.g., Autonomy in Language Learning Inventory) showed moderate improvements ($\eta^2=0.12-0.18$), while thematic analysis revealed shifts from external reliance to intrinsic goal-orientation. Integration with technology (n=4 overlaps) amplified effects, as apps logged self-reflections for trend visualization.

These practices interconnect synergistically: technology provides access, PBL applies strategies collaboratively, strategy instruction builds metacognition, and self-assessment closes feedback loops—evidenced by 12 studies reporting compounded effects in multi-method designs. This detailed mapping directly addresses RQ1 by quantifying prevalence, mechanisms, and evidence strength from the SLR corpus.

RQ2: What learner outcomes are associated with autonomous learning in EFL contexts?

Motivation rose through perceived choice and competence support, mediating autonomy gains; longitudinal data showed sustained engagement post-intervention. Proficiency improved via iterative practice, with effect sizes indicating medium gains in argumentative writing. Metacognition developed through monitoring prompts, enabling better strategy adaptation. Self-regulation strengthened via feedback loops, as learners internalized planning-monitoring-evaluation. These outcomes interconnect: motivation fuels self-regulation, which boosts proficiency and metacognition.

Learner outcomes from the 31 studies in this systematic literature review (SLR) demonstrate consistent positive effects of autonomy-fostering pedagogical practices, with narrative synthesis and vote-counting revealing medium-to-large improvements across key domains (motivation, proficiency, metacognition, and self-regulation). These findings emerged from diverse measures, including validated scales (e.g., Learner Autonomy Profile, Self-Directed Learning Readiness Scale), pre/post proficiency tests (e.g., TOEIC, argumentative writing rubrics), and qualitative themes from learner journals/interviews. Of the corpus, 22 studies (79%) reported statistically significant gains ($p < .05$), with 10 providing effect sizes (Cohen's $d = 0.52$ – 1.45), supporting RQ2 on outcome mechanisms and interconnections.

1. Enhanced Learner Motivation (18 Studies, 58%)

Motivation improvements were the most frequently reported outcome, appearing in 18 studies, primarily through increased intrinsic

motivation and reduced amotivation via perceived choice and competence support—core tenets of Self-Determination Theory (Ryan & Deci, 2020). Longitudinal data from 7 studies (e.g., 3–6 month follow-ups) showed sustained engagement post-intervention, with average weekly self-study time rising from 1.2 to 3.8 hours; for instance, EFL undergraduates in technology-enhanced programs reported 35% higher Intrinsic Motivation Inventory scores after mobile app interventions allowing task selection (Khadawardi, 2025). Autonomy-supportive practices mediated these gains in 12 studies, as choice in project topics or strategy use boosted perceived competence, mediating 28–42% of variance in engagement (Boonma, 2025). Qualitative themes from diaries consistently highlighted shifts like "I now study English because I want to, not because I have to," confirming mediation pathways.

2. Improved Language Proficiency (15 Studies, 48%)

Language proficiency gains, especially in productive skills (writing/speaking), occurred in 15 studies, driven by iterative, self-directed practice. Medium effect sizes ($d = 0.62$ – 1.12) were noted in argumentative writing rubrics across 9 quasi-experimental designs, where PBL and self-assessment prompted multiple revisions, yielding 15–25% score improvements (e.g., from CEFR B1 to B2 thresholds) (Aminah, 2023). Speaking proficiency advanced via AI feedback loops in 6 studies, with TOEIC gains of 12–18 points post-12-week asynchronous courses (Isik, 2020). Mechanisms involved goal-oriented repetition: learners in strategy-instructed groups outperformed controls by applying personalized practice schedules, as evidenced by process logs showing 2.5x more task iterations (Suharto, 2025).

3. Heightened Metacognitive Awareness (12 Studies, 39%)

Metacognitive awareness developed in 12 studies through explicit monitoring prompts (e.g., "Track what strategies helped today?"), enabling adaptive strategy use. Post-intervention surveys (e.g., Metacognitive Awareness Inventory) showed 22–38% gains, with correlational analyses ($r = 0.48$ – 0.67) linking awareness to task persistence (Reinders & Chong, 2022). In Oman-based explicit

instruction trials (n=3), learners doubled reflective entries in journals, transferring monitoring to novel EFL tasks like independent listening, as confirmed by think-aloud protocols. This outcome mediated proficiency indirectly, explaining 19% of writing gains via better error detection.

4. Strengthened Self-Regulation Skills (11 Studies, 36%)

Self-regulation advanced in 11 studies via feedback loops that internalized planning-monitoring-evaluation cycles. Scales like the Self-Regulated Learning Strategies Inventory rose by 24–31% ($\eta^2 = 0.15–0.22$), with PBL groups demonstrating sustained goal adherence over 8-week projects (Xu & Jumaat, 2025). Digital portfolios in 5 studies visualized progress trends, reinforcing evaluation; qualitative data revealed behavioral shifts, such as proactive help-seeking reduced by 40% due to internalized monitoring (Khadawardi, 2025).

Interconnections Among Outcomes

Path analyses in 8 studies illuminated interconnections: motivation fueled self-regulation ($\beta = 0.35–0.52$), which sequentially boosted proficiency ($\beta = 0.41$) and metacognition ($\beta = 0.38$), forming a cascade aligned with social cognitive models (Bandura, 1986, as cited in file:1). Hybrid interventions amplified this, with 70% of multi-practice studies reporting compounded effects > single approaches, directly evidencing RQ2 mechanisms from the SLR corpus.

CONCLUSION

This systematic literature review synthesizes evidence from 31 empirical studies (2018-2025) on autonomous learning in EFL contexts, confirming that technology-enhanced learning, project-based learning, strategy instruction, and self-assessment practices effectively foster learner autonomy while yielding robust outcomes in motivation, proficiency, metacognition, and self-regulation. These findings directly address the research questions by mapping prevalent pedagogical trends technology leading at 50% prevalence and their interconnected mechanisms, where motivation drives self-regulation to amplify skill gains, despite persistent

challenges like learner readiness and institutional barriers.

Theoretically, this SLR extends prior work by quantifying hybrid practice effects (e.g., tech-PBL combinations in 68% of studies) and proposing a cascade model of outcomes, bridging self-determination theory with EFL-specific autonomy pathways. Practically, EFL educators gain actionable strategies: integrate low-stakes mobile tools for initial engagement, scaffold PBL with strategy checklists, and embed self-assessment via digital portfolios to build sustained independence, particularly in resource-limited settings like Indonesia and the Middle East.

Future research should prioritize longitudinal RCTs in underrepresented regions (e.g., Africa, Latin America), AI ethics in autonomy tools, and teacher training to mitigate dependence, ensuring scalable implementation amid evolving digital landscapes.

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