

Review Article

A Systematic Review on Self-directed Learning among Undergraduate Students in Learning English outside Language Classrooms

Nguyen Thu Huynh ^{1,*}  and Thi Anh Dao Vo ¹ 

¹ University of Finance – Marketing, Hochiminh City, Vietnam

* Correspondence: hn.thu@ufm.edu.vn

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Abstract: Undergraduate EFL students across diverse geographical and institutional contexts engage in self-directed English learning outside classrooms predominantly through digital platforms, with YouTube, WhatsApp, and social media emerging as the most frequently used tools. A consistent finding is that students favor receptive, input-oriented activities - particularly listening and watching English-language content - over productive activities such as speaking and writing, even when speaking is the skill they most wish to improve. Students typically spend one to three hours daily on English-language digital content, and their self-regulatory practices range from structured goal-setting and cyclical self-reflection to passive engagement such as watching videos without explicit learning strategies. Higher-proficiency learners tend to demonstrate more sophisticated metacognitive awareness and more effective self-regulatory cycles than lower-proficiency peers. The effectiveness of out-of-class self-directed practices depends on the interaction of several factors: individual interest and motivation, self-regulation capacity, degree of institutional scaffolding, and cultural context. Structured programs that bridge classroom instruction with independent learning and include teacher advisory roles produce more systematic and sustained self-directed behaviors than purely informal approaches. Key challenges include time constraints, declining engagement over time, limited productive skill practice, and cultural barriers to online communication in some contexts. Reported language gains center on listening, vocabulary, and speaking confidence, while writing remains the least developed skill through self-directed digital learning. This systematic review of 25 empirical studies underscores the need for targeted scaffolding to enhance the quality and persistence of undergraduate self-directed English learning beyond formal classrooms.

Keywords: language classrooms; self-directed learning (SDL); undergraduate students

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1. Introduction

English has consolidated its status as a global lingua franca and a key prerequisite for academic and professional success, especially in higher education contexts where undergraduate students are increasingly expected to engage with English-medium content and internationalized curricula. In parallel, the rapid expansion of digital technologies, social networking platforms, and mobile devices has created new opportunities for English language learning that extend beyond the boundaries of formal classroom instruction (An et al., 2023). Within this evolving landscape, self-directed learning (SDL) has emerged as a central construct, emphasizing learner autonomy, self-regulation, and active control over learning goals, resources, and strategies in both formal and informal settings (Calucag et al., 2023).

SDL has become increasingly vital in English as a Foreign Language contexts, where classroom hours are limited and lifelong language proficiency demands extend beyond formal instruction (Han, 2023). Undergraduate students, typically aged 18-25, face unique pressures to develop autonomy in English learning to meet academic, professional, and global communication needs. Outside language classrooms, SDL encompasses autonomous practices, self-regulation strategies, and independent study behaviors facilitated by digital affordances (Lai et al., 2022). Recent empirical research highlights how these practices shape

language development, with digital platforms serving as primary mediums.

Across 25 studies spanning East Asia, Southeast Asia, the Middle East, Europe, and Turkey, undergraduates predominantly use YouTube, social media (e.g., WhatsApp, Instagram), and mobile apps for SDL (Ahmed, 2025; Dincer, 2020; Fauziah & Diana, 2023; Yurieva et al., 2021). Receptive activities – listening to podcasts, watching videos, and reading online content - dominate, often lasting 1-3 hours daily, while productive skills like speaking and writing receive less attention (Bok & Cho, 2020; Daflizar, 2020; Riayuningsih et al., 2022). For instance, Korean and Indonesian students prioritize entertainment-oriented input despite desiring speaking improvements. Self-regulatory processes vary: higher-proficiency learners employ goal-setting, monitoring, and reflection cycles, whereas lower-proficiency peers engage passively. Motivational orientations - such as instrumental goals, ideal L2 selves, and personal interest - predict engagement, with structural equation modeling confirming interest's mediating role in technology use (Lai, 2013; Lai et al., 2024). Proficiency levels modulate metacognition: Japanese TOEIC-high scorers show superior forethought and reflection. Institutional scaffolding, including flipped classrooms and teacher advisories, fosters sustained behaviors compared to unstructured approaches (Bok & Cho, 2020; Yanf, 2020). Cultural factors also limit interactive practice (Lamb & Arisandy, 2020). Persistent barriers include time constraints, waning motivation, technological issues, and over-reliance on receptive input (Bok & Cho, 2020; Daflizar, 2020). Outcomes favor listening and vocabulary gains but lag in writing (Riayuningsih et al., 2022). While studies document practices via surveys, interviews, and logs, gaps remain in longitudinal data, non-English major contexts, and interventions bridging proficiency disparities. Heterogeneity in SDL sophistication – tied to structure and proficiency - signals the need for nuanced support (Bok & Cho, 2020; Jeong, 2022; Yanf, 2020). Therefore, this study synthesizes evidence from a systematic review of 25 empirical sources to elucidate how undergraduate students practice self-directed learning in English outside classrooms. By identifying dominant patterns, factors, and challenges, it informs pedagogical strategies enhancing autonomy.

2. Materials and Methods

2.1. Papers search

A comprehensive literature search was conducted to identify relevant studies examining self-directed English language learning among undergraduate students outside formal classroom settings. The search strategy employed a semantic search approach utilizing the query “undergraduate students” OR “university students” AND “practice” AND “self-directed learning” OR “SDL” AND “learn* English” AND “outside language classroom*” across an extensive academic database. Scopus was selected as the primary search platform due to its rigorous curation of peer-reviewed content, comprehensive coverage exceeding 100 million records from high-impact multidisciplinary sources, advanced citation tracking capabilities, and alignment with systematic review standards in language teaching and learning. This ensured broad yet targeted representation of quality literature across diverse disciplines and publication venues. The semantic search methodology, which relies on conceptual matching rather than simple keyword matching, was employed to maximize the retrieval of contextually relevant papers while minimizing the retrieval of tangentially related or irrelevant sources. The search yielded a total of 500 papers identified as most relevant to the research query, which subsequently underwent systematic screening to determine eligibility for inclusion in the review based on predetermined inclusion criteria.

2.2. Screening

The screening process was conducted based on sources' abstracts, evaluating them against a comprehensive set of inclusion criteria. The first criterion examined whether the study involved the target population, specifically undergraduate students typically aged 18-25 enrolled in higher education institutions. The second criterion assessed the learning context, determining whether the study examined English language learning occurring outside formal language classrooms, such as through online platforms, mobile applications, self-study activities, or informal conversational engagement with media consumption. A third criterion focused on the SDL component, investigating whether the study examined learner autonomy, self-regulation, independent learning strategies, or learner-initiated English language learning activities. The fourth criterion established the target language requirement, ensuring that each study specifically focused on English language learning as a second language (L2), English as a Foreign Language (EFL), or English as a Second Language (ESL). Additionally, the

screening process required studies to present empirical evidence, encompassing either original data collection and analysis or systematic synthesis of existing research, while explicitly excluding purely theoretical, conceptual, or opinion-based works. Finally, the non-classroom setting criterion ensured that the learning examined in selected studies did not primarily occur within structured language courses or teacher-directed classroom environments. All screening questions were evaluated holistically, allowing for comprehensive judgment regarding the inclusion of each paper in the systematic review.

2.3. Data extraction

The data extraction process employed a large language model to systematically extract relevant information from each included paper according to predefined coding categories and standardized extraction instructions. This systematic approach ensured consistency and comprehensiveness in capturing pertinent data across all dimensions of analysis.

The model was directed to identify key attributes of undergraduate students pertinent to self-directed English learning. This encompassed English proficiency levels (categorized as beginner, intermediate, or advanced), academic year or level within the university, language learning background and prior experience, motivational orientations (such as instrumental, integrative, or personal interest), previous engagement with SDL, cultural and linguistic backgrounds (including L1 and nationality where relevant), as well as sample size and selection criteria.

The instructions required extraction of specific strategies, behaviors, and processes utilized by students in self-directed English learning beyond classroom settings. These included goal-setting processes and the nature of goals established, material selection strategies and associated criteria, learning methods and techniques implemented, self-monitoring and self-evaluation practices, metacognitive strategies and levels of awareness, self-regulatory cycles and processes, time management and scheduling approaches, and problem-solving methods employed when facing difficulties.

Data were to be drawn on the environments, timing, and resources involved in students' self-directed English learning activities. This covered physical and digital learning environments, technology platforms and tools (e.g., YouTube, learning management systems, applications), types of learning materials (e.g., videos, podcasts, texts, games), timing and frequency of sessions, social dimensions (individual versus collaborative learning), integration with formal classroom instruction, and aspects of resource accessibility and availability.

The model extracted personal and contextual elements that influence undergraduate students' self-directed English learning practices. These factors included individual differences (e.g., learning styles, preferences, personality traits), motivational dynamics and temporal changes, cultural and social influences, institutional supports or barriers, technological constraints or affordances, time limitations and competing priorities, peer influences and opportunities for social learning, and the presence or absence of teacher or instructor guidance.

Results and impacts of self-directed English learning practices on undergraduate students were documented, including improvements across language skills (listening, speaking, reading, writing, vocabulary), shifts in motivation and attitudes toward English learning, development of learner autonomy and self-regulation skills, levels of engagement and persistence over time, perceived effectiveness relative to formal classroom learning, encountered challenges and limitations, unintended consequences or side effects, and any measurable learning gains (e.g., test scores or assessments).

Methodological details concerning the investigation of self-directed English learning practices were extracted, encompassing research design and approach (qualitative, quantitative, or mixed methods), data collection methods (e.g., interviews, surveys, learning logs, observations), study duration and timeline, data analysis procedures, theoretical frameworks employed, limitations and constraints inherent to the study design, and considerations of validity and reliability specific to researching SDL phenomena.

3. Results

3.1. Characteristics of Included Studies

This systematic review synthesized findings from 25 systematic reviews examining SDL among undergraduate students learning English outside traditional language classrooms. The included studies were published between 2016 and 2025, covering various aspects of self-directed English language learning. Table 1 summarizes the key characteristics of the studies

included in this review, highlighting their research design, context, and data collection methods. This overview provides a clear foundation for understanding the scope and methodological diversity of the evidence presented.

Table 1. Characteristics of included studies.

Study	Research design	Context	Data collection
Ahmed (2025)	Quantitative survey	Sri Lanka	Structured questionnaire
Albedah & Lee (2017)	Mixed methods	Saudi Arabia	Online survey, WhatsApp journals, interviews
Bok & Cho (2020)	Mixed methods	South Korea	Surveys, study logs, teaching materials
Jeong (2022)	Mixed methods	South Korea	Pre-/posttests (TOEIC), surveys, focus group interviews
Yabukoshi (2020)	Qualitative case study	Japan	Weekly learning journals, goal-setting sheets
Zainuddin et al. (2019)	Qualitative case study	Indonesia	Semi structured interviews, LMS observation
Gan et al. (2004)	Qualitative	China	Interviews, diaries, email correspondence
Yanf (2020)	Mixed methods	Taiwan	Listening logs, questionnaires, interviews
Wang & Chen (2020)	Qualitative	Taiwan	Individual interviews
Lai et al. (2024)	Qualitative	Mainland China	Surveys; SEM analysis
Hsieh & Hsieh (2019)	Mixed methods	Not reported	Email interviews, resource usage records
Zainuddin & Perera (2018)	Qualitative case study	Indonesia	Interviews, observations, video recordings
Yang (2016)	Not explicitly stated	Taiwan	Online photos, e-assessments
Dincer (2020)	Quantitative cross sectional survey	Turkey	Paper-based survey, cluster analysis
Daflizar (2020)	Explanatory mixed methods	Indonesia	Questionnaires, semistructured interviews
Riayuningsih et al. (2022)	Descriptive survey (mixed)	Indonesia	Close-ended and open-ended items
Trinder (2017)	Quantitative survey	Austria	Survey
Pham et al. (2023)	Quantitative	Not reported	Survey (35 questions); regression analysis
Şahin Kizil & Savran (2016)	Quantitative	Not reported	Surveys
Fauziah & Diana (2023)	Mixed methods	Indonesia	Surveys and semistructured interviews
Mukhtar & Hussain (2025)	Qualitative	Not reported	Thematic analysis via NVivo
Lamb & Arisandy (2020)	Mixed methods	Indonesia	56-item survey, follow-up interviews
Lai (2013)	Quantitative	Hong Kong	Surveys; SEM analysis
Yurieva et al. (2021)	Mixed methods	Ukraine	Online questionnaire (Likert, multiple choice, open-ended)
Trahkumala & Hidayat (2025)	Qualitative narrative inquiry	Indonesia	Semistructured interviews; thematic analysis

The studies represent a wide geographic range including East Asia (South Korea, Japan, Taiwan, China, Hong Kong), Southeast Asia (Indonesia, Sri Lanka), the Middle East (Saudi Arabia), Eastern Europe (Ukraine), Western Europe (Austria), and Turkey. Sample sizes vary considerably, from as few as 2 participants in an in-depth narrative inquiry (Trahkumala & Hidayat, 2025) to 777 in a large-scale survey (Şahin Kizil & Savran, 2016). The majority of studies employed mixed-methods or qualitative designs; only six adopted purely quantitative approaches (Ahmed, 2025; Dincer, 2020; Lai et al., 2024; Pham et al., 2023; Şahin Kizil & Savran, 2016). Theoretical frameworks, where specified, included Knowles' SDL model (Bok & Cho, 2020), Zimmerman's self-regulation model (Yabukoshi, 2020), self-determination theory (Dincer, 2020), the theory of planned behavior (Lai, 2013), Dörnyei's L2 motivational self-system (Lamb & Arisandy, 2020), and Vygotsky's sociocultural theory (Fauziah & Diana, 2023).

3.2. Thematic Analysis

3.2.1. Theme 1: Digital Platforms and Technology as the Primary Medium for Out-

of-class Learning

Across almost all studies, digital tools and platforms constitute the dominant infrastructure for self-directed English learning outside the classroom. YouTube emerged as the single most frequently cited platform, reported prominently in studies from Sri Lanka (Ahmed, 2025), South Korea (Bok & Cho, 2020), Turkey (Dincer, 2020), Indonesia (Fauziah & Diana, 2023; Lamb & Arisandy, 2020; Trahkumala & Hidayat, 2025), Ukraine (Yurieva et al., 2021), and Taiwan (Wang & Chen, 2020). WhatsApp was highlighted particularly in Sri Lanka (Ahmed, 2025), Saudi Arabia, and Pakistan/social media contexts (Mukhtar & Hussain, 2025). Social media platforms broadly – including Facebook, Instagram, and messaging apps – featured as key learning environments in multiple studies (Trahkumala & Hidayat, 2025).

Beyond social media, structured mobile applications such as the Hackers TOEIC app (Jeong, 2022), Duolingo, and Babbel (Trahkumala & Hidayat, 2025) were used for deliberate practice. Learning management systems (LMS), particularly TES BlendSpace, were investigated in flipped classroom contexts in Indonesia (Zainuddin et al., 2019; Zainuddin & Perera, 2018). Other digital resources included online dictionaries, podcasts, blogs, online courses, and language exchange platforms (Dincer, 2020; Fauziah & Diana, 2023; Yurieva et al., 2021). TED videos served as the primary material in one Taiwanese listening program (Yanf, 2020).

Notably, despite the abundance of novel technologies, Austrian university students expressed a preference for “well-established, time-honoured media” such as film, online dictionaries, and email in self-regulated contexts (Trinder, 2017). Similarly, Korean students who used educationally designed resources preferred traditional tools like print books (Bok & Cho, 2020). Smartphones were the most common access device (Bok & Cho, 2020; Jeong, 2022; Lamb & Arisandy, 2020), and their portability and accessibility were consistently cited as key affordances (Jeong, 2022; Lamb & Arisandy, 2020).

3.2.2. Theme 2: Predominance of Receptive over Productive Learning Activities

A striking pattern across multiple studies is the imbalance between receptive and productive skill practice. Students overwhelmingly engaged in input-oriented activities – particularly listening and reading – while speaking and writing activities were comparatively neglected. Korean students chose listening and reading activities for their self-directed projects, despite identifying speaking as the skill they most wished to improve (Bok & Cho, 2020). Indonesian tertiary students engaged more in receptive than productive out-of-class activities (Daflizar, 2020), a finding echoed among Indonesian English education students who tended to engage only in receptive digital learning activities (Riayuningsih et al., 2022). Sri Lankan students reported notable improvements in listening and speaking but limited progress in writing (Ahmed, 2025). Ukrainian students similarly focused on vocabulary, listening, and pronunciation, with writing receiving less attention (Yurieva et al., 2021).

Entertainment-oriented activities – watching English-language videos, films, and TV series, and listening to English songs – were among the most frequently reported out-of-class practices (Daflizar, 2020; Lamb & Arisandy, 2020; Yurieva et al., 2021). These activities inherently favor receptive skill development. When productive activities such as speaking and writing were attempted, they were often conducted individually rather than interactively (Bok & Cho, 2020), limiting opportunities for communicative practice. Productive activities involving communication technology were particularly rare (Riayuningsih et al., 2022).

3.2.3. Theme 3: Goal-setting, Self-monitoring, and Metacognitive Regulation

The studies reveal considerable variation in the sophistication of students' self-regulatory processes. In structured programs, students engaged in explicit goal-setting: Korean students reflected on prior learning, researched materials, designed learning plans, executed them, and reflected on outcomes across a five-phase process (Bok & Cho, 2020). Japanese students set specific goals such as increasing correct TOEIC answers and adjusted their plans through cyclical self-reflection (Yabukoshi, 2020). Taiwanese EFL learners in a TED-based listening program set goals related to understanding main ideas and vocabulary, monitored comprehension, and adapted strategies accordingly (Yanf, 2020).

Higher-proficiency Japanese students demonstrated more effective metacognitive awareness and self-regulatory cycles than lower-proficiency peers (Yabukoshi, 2020). The higher-proficiency students who held both instrumental and international motivational orientations were more actively engaged in forethought, performance, and self-reflection phases (Yabukoshi, 2020). In contrast, some Indonesian students reported they were not autonomous in their learning and expressed difficulty with self-directed approaches (Daflizar,

2020), suggesting that metacognitive capacity is neither uniform nor automatic among undergraduates.

Self-monitoring practices varied by context. In technology-mediated environments, students monitored progress through LMS activity tracking (Zainuddin et al., 2019), submission of learning summaries (Jeong, 2022), and weekly diary entries (Yabukoshi, 2020). In less structured settings, students relied on self-assessment of tool usefulness for language development (Yurieva et al., 2021) or informal strategies such as pressing “like” and sharing videos (Wang & Chen, 2020). The use of internal motivational strategies (self-reminder, self-reward, and self-requirement) was documented among Taiwanese learners to sustain engagement (Yanf, 2020).

3.2.4. Theme 4: The Role of Motivation and Interest

Motivational factors emerged as central determinants of SDL engagement. (Lai et al., 2024) found through structural equation modeling that both interest in learning English and interest in pursuing personal interests in English were significant predictors of self-directed technology use, with the latter mediating the influence of the former. The same research group's earlier work established that attitudinal factors – Including language learning motivation, perceived usefulness of technology, and perceived compatibility between technology and learning expectations - played a “dominant role” in shaping out-of-class technology use (Lai, 2013).

Motivational orientations differentiated learning outcomes: Japanese students with both instrumental and international orientations demonstrated stronger self-regulation and greater learning progress than those with only instrumental orientations (Yabukoshi, 2020). Indonesian students demonstrated strong ideal L2 selves - visions of themselves as future English users - which correlated positively with online informal learning (Lamb & Arisandy, 2020). The subjective norm, or the perception that self-directed technology use is socially desirable, was the most significant factor influencing Vietnamese English majors' technology use for learning (Pham et al., 2023).

Changes in motivation over time were also observed. Engagement in the Taiwanese TED listening program decreased over the ten-week period (Yanf, 2020), reflecting a common pattern in informal learning contexts where initial enthusiasm wanes without external accountability. This finding aligns with concerns about persistence raised in Korean (Bok & Cho, 2020) and Indonesian contexts (Daflizar, 2020).

3.2.5. Theme 5: Social and Cultural Influences on Self-directed Practices

Cultural context shaped both the nature and extent of out-of-class learning. In Indonesia, a culturally ingrained respect for educators created tension with SDL: students were hesitant to engage in social English use online for fear of “losing face” or being perceived as arrogant (Lamb & Arisandy, 2020). Chinese EFL learners' success was explained by a complex interplay of internal cognition, emotion, external incentives, and social context (Gan et al., 2004). Saudi students faced institutional barriers through passive learning pedagogies and curricula that did not support self-directed or deep learning (Albedah & Lee, 2017).

Social learning was relatively limited across studies. Speaking and writing activities were mostly conducted individually (Bok & Cho, 2020), and Indonesian students reported limited interest from friends in collaborative study (Daflizar, 2020). Where social elements did exist, they tended to be passive - sharing videos with friends (Wang & Chen, 2020) or interacting on social media platforms (Fauziah & Diana, 2023). However, LMS-based learning communities facilitated peer interaction in flipped classroom contexts (Zainuddin et al., 2019), and online forums and language exchange platforms enabled sociocultural interactions with native speakers (Fauziah & Diana, 2023).

Peer and family support played notable roles in some contexts. Family encouragement supported early English exposure through video games and interactive media for highly proficient self-directed learners in Indonesia (Trahkumala & Hidayat, 2025). Peer support networks and teacher guidance were identified as facilitating conditions that strengthened perceived compatibility between technology and learning (Lai, 2013).

3.2.6. Theme 6: Institutional Integration and Teacher Roles

The relationship between formal classroom instruction and out-of-class SDL emerged as a critical theme. Several studies implemented structured programs that bridged classroom and independent learning: the Korean SDL project was a graded component of a general English course (Bok & Cho, 2020); the TOEIC mobile application study required daily app use with instructor monitoring (Jeong, 2022); and the flipped classroom model using TES

BlendSpace required pre-class video viewing (Zainuddin et al., 2019).

Teacher guidance was consistently identified as essential for successful SDL. Instructors were recommended to take advisory roles, offer guidance on effective methods and tools, and provide scaffolding (Bok & Cho, 2020). Weekly progress reports from teachers served as significant motivators in the Taiwanese listening program (Yanf, 2020). Teachers were also seen as crucial for guiding students' technology use outside the classroom (Yurieva et al., 2021) and creating positive social norms around self-directed technology use (Pham et al., 2023).

However, a tension exists between teacher guidance and learner autonomy. One study found that SDL with little teacher intervention could develop learner autonomy in ESP contexts (Yang, 2016), while highly proficient self-directed learners in Indonesia achieved success without formal courses, though they noted a disconnection between personal interests and the formal curriculum (Trahkumala & Hidayat, 2025). Institutional-level supports - including learning centers, one-on-one consultation services, and extracurricular programs - were recommended as complementary infrastructure (Bok & Cho, 2020; Hsieh & Hsieh, 2019).

3.2.7. Theme 7: Challenges and Constraints

Students encountered multiple barriers to effective SDL. Time constraints and competing priorities were among the most frequently cited obstacles (Yurieva et al., 2021; Bok & Cho, 2020; Daflizar, 2020; Yanf, 2020). Korean students found it difficult to fit self-directed projects into busy schedules (Bok & Cho, 2020), while Indonesian students reported limited time after class due to work or social activities (Daflizar, 2020).

Technological constraints included small screen size and data problems in mobile learning contexts (Jeong, 2022), poor internet connections (Yurieva et al., 2021), and limited digital literacy (Fauziah & Diana, 2023). The misuse of social media for entertainment rather than learning purposes was flagged as a concern, alongside the propagation of unreliable content (Mukhtar & Hussain, 2025).

A fundamental challenge was the gap between students' awareness of the importance of productive skills and their actual practice. Despite wanting to improve speaking, students gravitated toward receptive activities (Bok & Cho, 2020; Daflizar, 2020). Some students questioned the overall effectiveness of their self-directed activities (Bok & Cho, 2020), and YouTube-based learning was considered less effective for exam preparation (Wang & Chen, 2019). Students who lacked metacognitive strategies found autonomous learning difficult (Daflizar, 2020), and difficulties in applying grammatical knowledge during spoken communication persisted even among advanced self-directed learners (Trahkumala & Hidayat, 2025).

Therefore, the thematic analysis highlights that out-of-class English learning is largely driven by digital platforms and apps, though traditional resources remain relevant. Learners focus more on receptive skills than productive ones, with motivation and self-regulation influencing engagement. Cultural, social, and institutional factors affect practices, while time, technology, and skill gaps pose ongoing challenges.

4. Discussion

The findings across these 25 studies converge on several points but also reveal heterogeneity that warrants explanation. The most significant finding is that undergraduates across all contexts preferentially engage in receptive, entertainment-oriented, and technology-mediated activities for out-of-class English learning. This pattern holds across East Asian (Bok & Cho, 2020; Lamb & Arisandy, 2020; Yabukoshi, 2020), Southeast Asian (Daflizar, 2020; Fauziah & Diana, 2023; Riayuningsih et al., 2022), European (Trinder, 2017; Yurieva et al., 2021), and Middle Eastern contexts (Albedah & Lee, 2017), suggesting it reflects fundamental characteristics of available digital resources and learner behavior rather than culture-specific tendencies. The affordances of platforms like YouTube - which provide extensive listening and reading input with minimal demand for production - structurally favor receptive skill development.

Where studies diverge is in the reported effectiveness and sophistication of self-directed practices. This heterogeneity can be partially explained by two interacting factors: proficiency level and degree of program structure. Studies involving structured programs with explicit goal-setting phases, teacher monitoring, and accountability mechanisms - such as the Korean SDL project (Bok & Cho, 2020), the TOEIC mobile application study (Jeong, 2022), and the

Taiwanese TED listening program (Yanf, 2020) – reported more systematic self-regulatory behaviors and more positive learning experiences. In contrast, studies examining purely voluntary, unstructured informal learning found lower persistence (Yanf, 2020), more passive engagement patterns, and students who did not consider themselves autonomous (Daflizar, 2020).

Proficiency level further modulates outcomes. Japanese students at higher proficiency levels demonstrated more effective metacognitive cycles and achieved greater TOEIC gains than lower proficiency peers, whose results were mixed (Yabukoshi, 2020). More autonomously engaged Turkish students tended to have greater language-learning proficiency (Dincer, 2020), though the direction of causality remains unclear - proficiency may enable more effective self-direction, or effective self-direction may produce higher proficiency. The two highly advanced Indonesian self-directed learners who achieved TOEFL scores above 600 without formal courses represent extreme cases that may not generalize to typical undergraduate populations (Trahkumala & Hidayat, 2025).

The role of motivational factors explains additional variance. Studies employing structural equation modeling identified individual interest and perceived compatibility between technology and learning as dominant predictors of self-directed technology use (Lai, 2013; Lai et al., 2024), while the theory of planned behavior framework highlighted subjective norms as the strongest influence on technology adoption for learning (Pham et al., 2023). These findings suggest that promoting self-directed learning requires working simultaneously on interest cultivation, self-regulation training, and social norm development, rather than treating any single factor in isolation. The differential association of self-regulation with cognitively demanding activities (instruction-oriented, information-oriented) versus less taxing activities (entertainment-oriented) further indicates that a one-size-fits-all approach to supporting self-directed learning is insufficient (Lai et al., 2024).

Cultural context shapes how these factors operate in practice. Indonesian students' reluctance to engage in online English communication due to face concerns (Lamb & Arisandy, 2020) and Saudi students' experience with passive pedagogies (Albedah & Lee, 2017) represent culturally specific barriers that may suppress productive skill practice beyond the general platform-driven bias toward receptive activities. Institutional contexts matter as well: significant differences in autonomous learning between English major and non-English major students in Indonesia. Daflizar (2020) suggests that disciplinary identity and curricular expectations create distinct conditions for self-directed learning.

In sum, the evidence supports the conclusion that undergraduate EFL students widely engage in self-directed English learning outside classrooms, predominantly through digital platforms and receptive activities. The effectiveness of these practices depends on the interaction of learner proficiency, motivational orientation, self-regulatory capacity, degree of institutional scaffolding, and cultural context. Structured programs that bridge classroom and out-of-class learning, combined with teacher advisory roles, appear to produce more systematic and sustained self-directed learning behaviors than purely informal approaches.

5. Conclusions

This systematic review demonstrates that undergraduate EFL students worldwide primarily engage in self-directed learning outside formal classrooms through accessible digital platforms, dedicating substantial daily time to receptive activities like listening and viewing content, while productive skills such as speaking and writing receive comparatively less emphasis. The effectiveness of these practices hinges on individual factors like proficiency and motivation, alongside contextual supports including institutional guidance and cultural influences, revealing a consistent pattern of input dominance tempered by structured interventions.

These findings resonate with broader trends in language education, where technology facilitates informal learning but often perpetuates imbalances in skill development unless actively addressed. While digital affordances enable widespread engagement, challenges such as time constraints, waning persistence, and cultural hesitations underscore the limitations of purely autonomous approaches.

In essence, fostering robust self-directed English learning requires hybrid strategies that blend technological resources with teacher scaffolding and metacognitive training. By bridging classroom instruction and independent practice, educators can cultivate sustainable autonomy and balanced proficiency. Future research should explore longitudinal impacts across diverse non-English major populations, particularly in emerging contexts, to advance

lifelong language acquisition globally.

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