

An Exploration of Self-Regulation Strategies Used by EFL Learners to Foster Autonomous Learning

Dr. BENGUEGA Souad

Ecole Normale Supérieure (ENS)-Ouargla, Algeria

Educational Media Laboratory, ENS-Ouargla in Algeria

Email: bengaga.souad@ens-ouargla.dz , <https://orcid.org/0009-0003-7481-6424>

Received : 11/01/2026 ; Accepted : 28/06/2026 ; Published : 26/07/2026

Abstract:

The growing emphasis on learner-centered approaches in English as a Foreign Language (EFL) education has highlighted the importance of learner autonomy as a key factor in successful language learning. Autonomous learners are expected to take responsibility for their learning by setting goals, monitoring progress, and evaluating outcomes. In this context, self-regulated learning (SRL) strategies have emerged as essential mechanisms that enable learners to manage and direct their own learning processes effectively. This study aims to explore the self-regulation strategies used by EFL learners to develop and sustain autonomous learning. To achieve these objectives, the study adopts an exploratory quantitative research design. Data are collected through a structured questionnaire administered to 46 EFL learners enrolled at five levels at Ecole Normale Supérieure (ENS)-Ouargla in Algeria. The findings confirm that learners possess a strong awareness of autonomous learning and demonstrate positive attitudes toward taking responsibility for their learning. The study further reveals that participants make substantial use of self-regulation strategies across the three core phases of self-regulated learning: planning, monitoring, and evaluation. Learners frequently engage in planning their learning activities, setting goals, organizing resources, monitoring their comprehension and progress, identifying and correcting errors, and evaluating their performance to enhance future learning outcomes. These behaviors reflect a strong level of metacognitive awareness and demonstrate learners' ability to take an active role in managing and directing their own learning process. The study contributes to the growing body of literature on learner autonomy and self-regulated learning by providing insights into how EFL learners manage their learning independently. It also offers pedagogical implications for teachers seeking to foster autonomy through the integration of self-regulation strategies in language learning contexts.

Keywords: self-regulated learning, learner autonomy, EFL learners, planning strategies, monitoring strategies, evaluation strategies.

Introduction

Teaching English as a Foreign Language (EFL) aims to develop learners' knowledge of vocabulary, pronunciation, grammar and syntax to produce correct thoughts when using language by means of its four skills: listening, speaking, reading and writing, to communicate effectively in real-life situations. In traditional language classroom, learning means memorizing words, sentence

structures, grammar rules, pronunciation rules through drilling. However, in modern language education, the focus has shifted from memorizing linguistic forms to enabling learners to use the language meaningfully and independently in a real situation. Achieving this objective requires learners to become active participants in their own learning process rather than passive receivers of knowledge. In this respect, developing learner independence has become a central goal in language teaching. Specifically, for learners to successfully communicate and use English outside the classroom, they need to develop a certain level of independence and responsibility toward their learning. Since the introduction of “learner autonomy” as a concept a significant transformation has been initiated in language pedagogy, necessitating the abandonment of traditional classrooms and the adoption of innovative teaching approaches that promote independent and active learning.

In fact, one of the most effective ways to promote learner independence is through strategy instruction, which enables learners to understand and apply a range of learning strategies to enhance their language skills. By learning how to plan, organize, monitor, and evaluate their learning processes, students can overcome learning difficulties and gradually become more autonomous in managing their own learning. Moreover, self-regulation plays a crucial role in ensuring learner autonomy. Self-regulated learners are able to control their cognitive, motivational, and behavioral processes during learning. Therefore, fostering self-regulation through strategy instruction can significantly contribute to developing autonomous learners who are better prepared to communicate effectively in real-life situations. Therefore, this study seeks to explore different self-regulation strategies used by EFL learners to foster their autonomous learning.

I. Literature Review

1. Definitions of Learner Autonomy

The concept of learner autonomy has been one of the most influential developments in language education, particularly since the late twentieth century.

Henri Holec is widely recognized as the pioneer of the concept “learner autonomy”; he introduced it in 1981 in his book *Autonomy and foreign language learning*. Holec stated the meaning of learner autonomy as “*the ability to take charge of one’s own learning*” and “To take charge of one’s learning is to have [...] the responsibility for all the decisions concerning all aspects of this learning [...]” (Holec 1981, p.3). His definition stresses the learner’s responsibility in making decisions about various aspects of learning, including setting objectives, selecting materials, choosing methods, monitoring progress, and evaluating outcomes. Additionally, it reflects a paradigm shift from teacher-centered instruction toward learner-centered approaches, where students are expected to take greater control over their learning process. Furthermore, he also noted that this ability “is not inborn but must be acquired either by ‘natural’ means or (as most often happens) by formal learning, i.e. in a systematic, deliberate way”. Put differently, Holec argued that autonomy is not innate a natural trait that students are born with, but must be acquired through systematic learning experiences guidance, and training. Most learners begin their educational journey relying heavily on teachers for instructions, explanations, and evaluation because they lack autonomy they do not yet know *how* to take responsibility for learning. For example, a first-year EFL student may wait for the teacher to explain vocabulary, correct mistakes, and assign tasks without taking any initiative. His work laid the foundation for later theoretical expansions by highlighting responsibility as the core element of

autonomy. In a similar way, Cotterall (1995) defines it “as the extent to which learners demonstrate the ability to use a set of tactics and strategies for taking control of their learning” (p. 195). This means that learner autonomy refers to the degree to which individuals possess the capacity to manage and regulate their learning processes through the effective use of appropriate strategies. Ushioda (1996) views that autonomous learners were by definition motivated learners. In other words, the term “learner autonomy” is closely related to “self-regulated learner” which was understood as ‘the degree to which individuals are active participants in their own learning’

Subsequent a number of scholars refined and expanded Holec’s definition. Building on Henri Holec’s definition of autonomous learner behavior, David Little (1991) introduces a psychological dimension to learner autonomy. He (1991) defines autonomy as a capacity for detachment, critical reflection, decision-making, and independent action, emphasizing that it involves a learner’s conscious and personal relationship with both the process and content of learning . In this sense, autonomous learners are not only independent but also reflective and aware of the strategies they use. Little further explains that autonomy is demonstrated not only in the way learners approach their learning but also in their ability to transfer knowledge and skills to new situations. Importantly, he highlights that autonomy develops through interaction rather than isolation, viewing it as a form of interdependence shaped within social contexts. Moreover, Little (1999) rejects the notion that autonomy is a purely Western concept, arguing instead that it is a universal capacity applicable across different cultural settings. Ultimately, he suggests that an autonomous approach to learning extends beyond specific subject areas, influencing learners’ attitudes, behaviors, and engagement in a wide range of learning contexts.

Phil Benson (1997) expands the concept of learner autonomy beyond Henri Holec’s original view. For Benson (1997), learner autonomy is a multidimensional construct. He initially distinguishes three main versions of autonomy—technical, psychological, and political—each reflecting different aspects of learner control.

The technical version is closely related to learner training and the development of effective learning strategies and it equips learners with the practical skills needed to manage their own learning processes in various contexts. To put it another way, it emphasizes preparing learners to use appropriate skills and strategies and to operate autonomously, without constant teacher intervention, both inside and outside the classroom when planning, organizing, and evaluating their learning activities. Theoretically, he associates this version with a “positivistic” approach to language learning, which acknowledges independent language acquisition rather than direct transmission of knowledge from teacher to learner. Accordingly, learners are expected to build their competence through engaging in activities such as practice, repetition, and strategy use. However, although this perspective promotes learner independence, it does not imply the complete absence of the teacher as expecting learners to function fully independently without prior preparation is unrealistic. Hence, autonomy requires gradual prior training and development by the teacher whose role remains essential in guiding and supporting learners toward self-direction.

The psychological version, on the contrary, holds that learners’ knowledge, including internal mental capacities, attitudes, and behaviours, is constructed within their own social world, jointly with their teachers, so it considers learning a shared responsibility between teacher and learner. In view of

that, this version is constant with basic thoughts of the ‘constructivist’ approach to language learning, which attaches great importance to individual responsibility for decision-making on learning and “tend to value interaction and engagement with the target language” (Benson, 1997, p. 24).

Benson (1997) further deepens the concept of learner autonomy by conceptualizing it as a multidimensional construct that extends beyond the mere management of learning processes. According to him, autonomy involves not only controlling how to learn (learning management) and developing awareness of how to think about learning (cognitive processes), but also exercising control over what to learn (learning content). This broader perspective shifts autonomy from a purely individual responsibility to a more complex construct that includes decision-making, agency, and ownership within the learning process. In this sense, the inclusion of control over learning content introduces a significant political and social dimension. It challenges traditional power structures in education by transferring authority from the teacher or institution to the learner, thereby emphasizing learners’ right to make choices about their own learning. This political version of autonomy highlights learners’ control over both internal and external learning contexts, as well as their active role in shaping learning processes and outcomes. Moreover, this perspective is closely aligned with critical theory, which recognizes the influence of social and political ideologies on knowledge construction. It underscores the importance of learners’ critical awareness of their social context and draws attention to potential barriers between learners and the target language community. Consequently, learner autonomy is not only about independent learning but also about empowerment, social awareness, and the ability to negotiate meaning and participation within broader educational and societal frameworks.

Furthermore, scholars such as Leni Dam (1995) define learner autonomy as “a capacity and willingness to act independently and in cooperation with others, as a socially responsible person” (p. 102). From this perspective, autonomy is not limited to individual learning but also involves collaboration and social responsibility. Dam emphasizes the importance of classroom practices that promote autonomy through learner involvement, interaction, and reflection. Her work demonstrates that autonomy can be effectively developed through pedagogical approaches that encourage students to actively participate in planning, monitoring, and evaluating their own learning. Similarly, Little (2004) confirms that “Autonomy is not synonymous with autism: it is not a matter of learners working on their own; like all other culturally determined human capacities, it develops in interaction with others” (p.17).

Overall, definitions of learner autonomy have evolved from a narrow focus on responsibility to a broader, multidimensional construct encompassing cognitive, psychological, social, and political aspects. Despite variations, all definitions converge on the idea that learners should play an active and central role in managing their learning.

2. The Significance of Learner Autonomy in EFL Settings

Several scholars have proved that learner autonomy has been particularly significant for it is considered both as a means and an end: a means to enhance language proficiency and an end in promoting lifelong learning skills. Language acquisition requires continuous practice, exposure, self-regulation and engagement beyond the classroom (Little, 1991). In the context of EFL learning, as learners often have limited exposure to the target language outside the classroom, the importance of learner autonomy is particularly evident. Autonomous learners are more inclined to seek opportunities

to use the language outside formal instruction, constructing knowledge through interaction and experience, and engage with authentic materials, thereby enhancing their learning (ibid). Autonomous learners in language contexts are expected to engage actively with the target language, practice beyond classroom boundaries, employ effective strategies to compensate for linguistic limitations and persist in their learning efforts (ibid). Little (1995) also stresses that learner autonomy promotes deeper learning by encouraging reflection, self-assessment, and active engagement. According to him (ibid), autonomous learners are more motivated and capable of sustaining their learning over time, as they become aware of their strengths and weaknesses. Benson (2011) highlights that autonomy is essential because it enables learners to take control over their learning processes, cognitive development, and even the content of learning. Put it differently, it equips learners with essential lifelong skills, such as critical thinking, problem-solving, and decision-making, enabling them to adapt to an increasingly complex world, which are crucial for effective language use beyond the classroom (Benson, 2011). In the same vein, Dam (1995) emphasizes the social dimension of autonomy, arguing that it involves both independence and collaboration. She demonstrates that autonomy enhances learners' responsibility, participation, and interaction in the classroom, leading to more meaningful and effective learning experiences. Hu, P., Zhang, J. (2017) prove in their that autonomy enhances motivation, improves learning outcomes, and fosters lifelong learning skills. Autonomous learners can adapt to different learning situations, use resources independently, and take responsibility for their progress (Dewi, 2023). Furthermore, autonomy supports the development of communicative competence by encouraging learners to engage actively with the language in real-world (El Falih & Lamrani-Hassani, 2024). Together, these perspectives underline that learner autonomy is not only a pedagogical goal but also a key factor in developing lifelong learning skills and successful language acquisition. Therefore, numerous studies have explored various ways of promoting learner autonomy. Recent research has examined areas such as the discourse of learner advising (Crabbe, Hoffman, & Cotterall, 2001), the relationship between learning strategies and autonomy (Hyland, 2000; Nunan, Lai, & Keobke, 1999), as well as the concept of teacher autonomy (Sinclair, McGrath, & Lamb, 2000).

3. Learner Autonomy and Teachers' Role in Classroom

Although learner autonomy shifts greater responsibility to learners, the teacher's role remains fundamental in facilitating this process. In EFL contexts, promoting autonomy requires moving away from teacher-centered instruction toward creating supportive learning environments that encourage exploration, participation, and self-directed learning. In this regard, David Little (1995) emphasizes that teachers act as facilitators who create conditions in which autonomy can flourish by providing guidance, scaffolding, feedback, and access to learning resources. Thus, the teacher's role is not diminished but rather transformed into one that supports learners in becoming more independent and responsible for their own learning.

Since autonomous learning depends largely on learners' ability to understand how to learn effectively, teachers must also function as strategy instructors. They are responsible for helping students develop metacognitive strategies such as planning, monitoring, and evaluating their learning processes. Through such guidance, learners gradually acquire self-regulation skills that enable them to manage their learning more independently. Similarly, Leni Dam (1995) argues that teachers should help students develop skills such as goal-setting and self-assessment in order to foster effective

learning management. However, teachers must adapt their instructional strategies according to learners' needs, readiness, and educational backgrounds. For example, beginners or younger learners may require structured support and gradual exposure to autonomous practices, whereas advanced learners can be granted greater freedom in making decisions and directing their own learning.

Furthermore, learner autonomy should not be interpreted as learner isolation. Rather, it redefines the teacher's role as a motivator, supporter, and facilitator of a positive learning environment. Teachers are expected to foster learners' confidence, provide emotional support, and establish a safe classroom atmosphere where students feel comfortable expressing ideas, taking risks, and engaging in meaningful interaction. Effective communication and trust-building are therefore essential components in the development of learner autonomy, as they encourage students to participate actively and assume greater responsibility for their learning.

To encourage independence, teachers should also design learner-centered activities that provide opportunities for decision-making, problem-solving, and reflection. Approaches such as task-based learning and project-based learning allow students to set objectives, make choices, and evaluate their progress, thereby increasing their sense of ownership over learning. Through these activities, learners become more engaged and develop the practical skills required for autonomous learning.

4. Challenges Encountering Teachers to Foster Learner Autonomy

Fostering learner autonomy presents several challenges for teachers. Research indicates that teachers' confidence in promoting autonomy varies according to experience and training. Hayo Reinders (2010) notes that experienced teachers generally feel more confident in encouraging learner independence because they possess greater classroom management skills and pedagogical flexibility. In contrast, less experienced teachers may struggle to balance guidance with learner freedom.

Additionally, cultural and institutional constraints may hinder the implementation of autonomy-focused practices. In some educational contexts, students are accustomed to teacher-centered instruction and may resist assuming responsibility for their own learning (Smith, 2003). Likewise, rigid curricula, standardized testing, and exam-oriented educational systems often limit opportunities for learner-centered approaches and autonomous activities (Benson, 2011). Teachers may therefore prioritize syllabus completion and examination preparation over the development of long-term autonomous learning skills.

Another major challenge concerns insufficient teacher preparation. Many educators report lacking the training necessary to implement autonomy-supportive strategies effectively. According to Simon Borg and Saleh Al-Busaidi (2012), although teachers generally recognize the value of learner autonomy, many encounter difficulties translating theoretical understanding into classroom practice due to limited resources, time constraints, and institutional pressures. Consequently, professional development programs are essential for equipping teachers with the pedagogical knowledge and practical skills needed to foster autonomy successfully.

Finally, teachers themselves must model autonomous behavior. Teachers who engage in reflective practice, pursue professional development, and demonstrate lifelong learning attitudes provide powerful examples for students. By modeling autonomy in their own professional practices, teachers inspire learners to adopt similar attitudes toward independent learning and self-development.

5. Definition of Self-Regulated Learning

Self-regulated learning (SRL) is a concept that has gained a great heuristic value and has attracted the attention of numerous researchers. This term has been defined as an active constructive process, in which students self- generate, manage and deliberately adapt their thoughts, feelings and actions according to the environment to achieving personal learning goals and overcome challenges (Winne and Hadwin 1998; Schunk 2013; Pintrich 2000, 2000b; Zimmerman 2015). According to Azevedo et al (2015) and Pintrich (2000), it consists of three types of elements:

- Cognitive elements are the intentional implementation of learning processes, such as learning strategies
- Metacognitive elements are the components which require the learner to consider the process of learning, such as task analysis, goal setting, choice of learning strategies, and monitoring and reflections on learning.
- Affective elements are emotion and mind-set which impact on, and in turn are affected by SRL. For example, learner motivation impacts a learner's will to persist despite challenges (which is a hallmark of SRL), and similarly, working through challenges effectively can boost confidence and thus motivation.

The concept of self-regulated learning (SRL) is generally dated back to 1986, when the American Educational Research Association organized a symposium to bring together influential perspectives on the key components of strategic learning in educational contexts. This event marked an important milestone in the development of the SRL construct, as it integrated several interrelated concepts that were considered fundamental to effective learning, including learning strategies, metacognition, self-concept, volitional strategies, and self-control (Zimmerman, 2008). Consequently, numerous researches have since been conducted in relation to SRL, yielding a multitude of articles and monographs (Boekaerts et al., 2000; Schunk and Green, 2018a, b) which clarified the nature and development of SRL, its relationship with academic achievement and the role of personal goals in self-regulation processes, among other aspects.

6. Models of Self-Regulated Learning

Self-regulated learning (SRL) has gained considerable prominence in contemporary educational psychology, as reflected in major scholarly handbooks and in the growing international recognition of self-regulation as a fundamental competency that educational systems should actively foster (Ananiadou & Claro, 2009). The concept has proven highly influential from a heuristic perspective, giving rise to comprehensive theoretical models (Zimmerman, 1998, 2000; Winne and Hadwin, 1998; Pintrich, 2000; Boekaerts, 2006, 2007) that delineate distinct phases of self-regulation as well as their underlying components, including cognitive processes and personal and contextual factors. Although these models share the common objective of explaining how learners plan, monitor, and evaluate their learning, they differ in terms of their theoretical foundations and in the degree of detail and emphasis they assign to specific phases and dimensions of the self-regulatory process. Zimmerman's model is among the earliest and most influential frameworks of self-regulated learning (SRL). Specifically, in the Triadic Analysis of SRL, Zimmerman (1989, 1990) adopts the assumptions of the social cognitive perspective of human self-regulation and proposes multidimensionality as its essential characteristic. Grounded in social cognitive theory, Zimmerman (1989, 1990) conceptualizes

SRL as a multidimensional process shaped by the reciprocal interaction of three major factors: personal factors (such as beliefs, self-perceptions, and affective processes), behavioral factors (learners' actions and strategies), and environmental factors (the physical and social learning context). Building on this triadic perspective, Zimmerman (1994, 1998a) identified several dimensions of self-regulation, including motivational, methodological, temporal, behavioral, contextual, and social aspects, each addressing different questions about why, how, when, where, and with whom learning occurs. He later refined this framework into a cyclical model (See figure 1) comprising three recursive phases: forethought, which involves goal setting and planning; performance, which includes strategy use and self-monitoring during task completion; and self-reflection, which entails evaluating outcomes and using the results to guide future learning (Zimmerman, 1998; Zimmerman & Moylan, 2009). This model highlights SRL as a dynamic and continuous process through which learners actively regulate their cognition, motivation, and behavior to achieve academic goals.

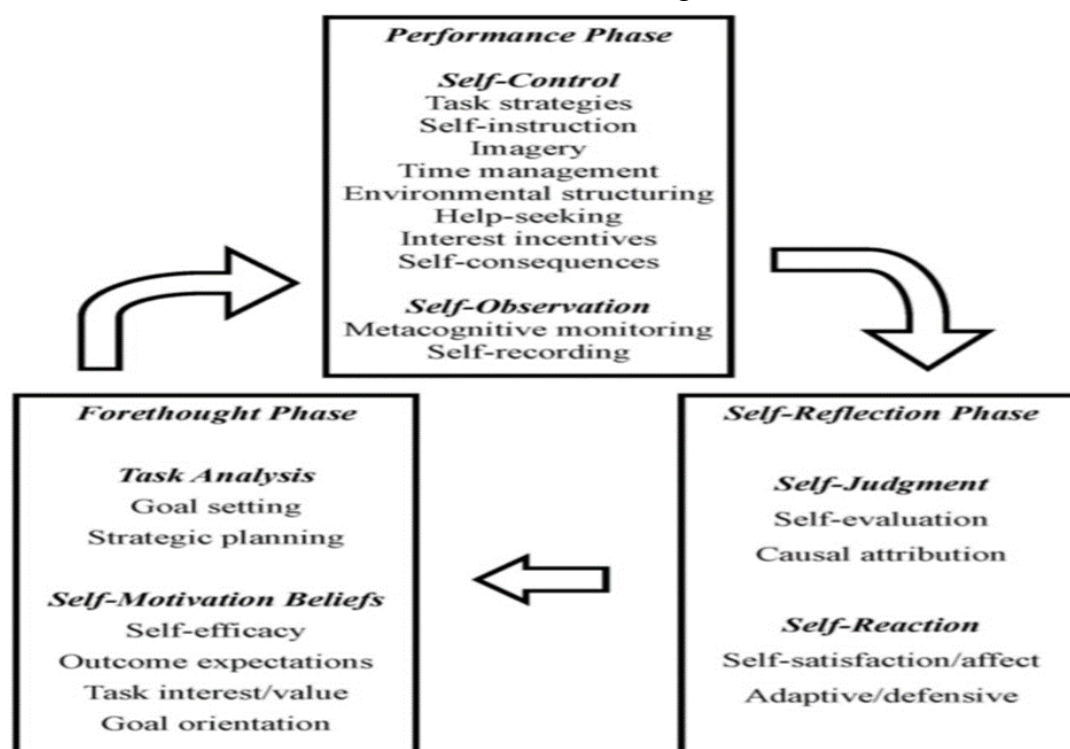


Figure 1. Zimmerman and Moylan's cyclical model. From Zimmerman and Moylan (2009, p. 300).

Later, in his suggested model, Boekaerts (1991, 2006, 2007) emphasizes the motivational dimension of SRL through her dual-processing model, which distinguishes between a mastery (or growth) pathway that promotes learning and a coping (or well-being) pathway aimed at protecting the learner's emotional state. Winne and Hadwin's (1998) information-processing model highlights the central role of metacognitive monitoring and identifies four stages: task definition, goal setting and planning, enacting strategies, and adaptation (Winne & Perry, 2000; Winne, 2001, 2011). Finally, Pintrich's model (2000, 2004) offers an integrative framework (See Table 1) that combines four

phases—forethought, monitoring, control, and reflection—with four domains of regulation: cognition, motivation and affect, behavior, and context. Together, these models underscore the multidimensional and cyclical nature of SRL and demonstrate that effective self-regulation involves the coordinated management of cognitive, motivational, behavioral, and contextual processes.

Table 1. Pintrich’s SRL model. Adapted from Pintrich (2000).

Phases	Areas for Regulation			
	Cognition	Motivation/Affect	Behaviour	Context
1. Forethought, planning, and activation	Target goal setting Prior content knowledge activation Metacognitive knowledge activation	Goal orientation adoption Efficacy judgments Ease of learning judgements Perceptions of task difficulty Task value activation Interest activation	Time and effort planning Planning for self-observations of behaviour	Perceptions of task Perceptions of context
2. Monitoring	Metacognitive awareness and monitoring of cognition	Awareness and monitoring of motivation and affect	Awareness and monitoring of effort, time use, need for help Self-observation of behaviour	Monitoring changing task and context conditions
3. Control	Selection and adaptation of cognitive strategies for learning, thinking	Selection and adaptation of strategies for managing motivation and affect	Increase/decrease effort Persist, give up Help-seeking behaviour	Change or renegotiate task Change or leave context
4. Reaction and reflection	Cognitive judgments Attributions	Affective reactions Attributions	Choice behaviour	Evaluation of task Evaluation of context

Recent developments in self-regulated learning (SRL) theory have expanded the construct beyond cognitive and metacognitive processes to encompass affective, motivational, and social dimensions. Efklides’s Metacognitive and Affective Model of Self-Regulated Learning (MASRL) (2011) distinguishes between two complementary levels of functioning: the macro-level, or Person level, which includes stable characteristics such as metacognitive knowledge, and the micro-level, or Task × Person level, which involves online task processing, metacognitive experiences, and the application of metacognitive skills. Efklides places particular emphasis on metacognitive feelings, such as confidence and satisfaction, which link cognitive processing to emotional responses and influence learners’ engagement with academic tasks.

The social dimension of SRL is further highlighted in the work of Allyson F. Hadwin and Sanna Järvelä (Hadwin et al., 2011; Järvelä & Hadwin, 2013), who distinguish among self-regulated learning, co-regulated learning, and socially shared regulation of learning. Their model demonstrates that regulation is not solely an individual process but can also emerge through interaction and collaboration with others.

In addition, contemporary models have given increasing attention to motivational regulation. Schwinger and Stiensmeier (2012) emphasize the strategies learners use to maintain or restore motivation when facing difficulties, while Miele and Scholer (2017) propose the Metamotivational Model, which explains how learners monitor and control motivational factors such as self-efficacy and task value. More recently, Jochen Wirth and colleagues (2020) introduced an interactive layers model that integrates conscious and automatic processing in SRL. Collectively, these models reinforce the view of SRL as a dynamic, multidimensional, and socially situated process involving the regulation of cognition, emotion, motivation, and interaction.

7. The Importance of Self-Regulated Learning Strategies in EFL Contexts

Self-regulated learning (SRL) strategies play a central role for assuring effective learning. SRL strategies empower learners' cognitive, motivational, and emotional control. They regulate learners' thoughts, emotions, and behaviors, so they can overcome anxiety, maintain motivation, and focus on task completion (Panadero & Alonso-Tapia, 2014). In the same vein, Hadwin et al. (2011) stress that if learners are self-regulated, they become effective planners, managers, and evaluators who actively monitor and adjust their learning strategies. Studies consistently prove that SRL enhances language outcomes and help learners persist through obstacles.

Zimmerman and Schunk (2011) maintain that students, who are highly self-regulated, demonstrate better time management, stronger perseverance, and more effective learning behaviors. Relatedly, Dörnyei and Ryan (2015) report that self-regulated learners can successfully overcome learning challenges and achieve significant progress in language development. Additionally, SRL can also contribute in the development of strategic decision-making skills. Learners with strong self-regulatory abilities can select and adapt appropriate learning strategies according to task demands and contextual challenges (Grenfell & Harris, 2017). These learners are more flexible, creative, and resilient when confronting difficulties and are less likely to engage in procrastination (Goulao & Menedez, 2015). As a result, they become more responsible and committed to their academic progress (Savoji et al., 2013).

As a matter of fact, the three core SRL strategies—planning, monitoring, and evaluation—are particularly important in language learning. Planning helps learners establish goals and organize their learning activities (Abun et al., 2018). Monitoring enables them to assess their understanding and modify strategies during task performance (Putri & Kuswando, 2019). Evaluation allows learners to reflect on their performance and identify ways to improve future learning (Annalakshmi, 2019). Together, these strategies form a cyclical process that supports continuous improvement. Furthermore, SRL is a dynamic and developable capacity rather than an innate trait. Lin and Gan (2014) found that learners with stronger self-regulation are more motivated, more engaged, and more willing to seek knowledge actively. Similarly, Hamedani (2013) observed that highly self-regulated learners display greater resilience, responsibility, and determination when facing academic demands.

Moreover, SRL strategies promote learner autonomy and lifelong learning. In response to the increasing emphasis on student-centered education, self-regulated learners become more autonomous, responsible, and effective language learners, so they are able to set clear objectives, plan their learning activities, monitor their progress, evaluate outcomes in order to improve their performance (Maftoon & Tasnimi, 2014), and connect classroom learning with real-life contexts (Sholeh et al., 2019). Likewise, Zimmerman (2008) argue that self-regulated learners assume greater responsibility for their learning by investing time, effort, and persistence when facing academic challenges. This process transforms them into proactive learners who are capable of directing their own educational development.

Self-regulated learning strategies are essential for fostering learner autonomy, enhancing academic achievement, strengthening motivation, and developing lifelong learning skills. By helping learners plan, monitor, and evaluate their own learning, SRL equips EFL students with the tools needed to become strategic, and hence independent, and successful language learners.

8. Self-Regulation and Learner Autonomy: Dimensions of Learner Autonomy

Learner autonomy is widely recognized as a multidimensional construct involving several interrelated components. Scholars have identified various dimensions that collectively shape autonomous learning. The dimensions of learner autonomy include cognitive autonomy, metacognitive autonomy, behavioral autonomy, emotional autonomy and social autonomy. Together, these dimensions help learners become more independent, reflective, and responsible in their learning journey. Self-regulation and learner autonomy are closely interconnected concepts in language learning, for the former plays a mechanism in developing the latter. If learner autonomy refers to learners' ability to take responsibility for their own learning by making decisions about goals, strategies, and evaluation, self-regulation supports this autonomy through processes such as planning, monitoring, and evaluating learning activities. Autonomous learners are capable of setting goals, selecting appropriate strategies, monitoring their progress, and evaluating their performance independently. Through self-regulation, learners become more aware of their strengths and weaknesses, which helps them make informed decisions about their learning needs. Moreover, self-regulated learners demonstrate greater motivation, confidence, and persistence when facing academic challenges.

Cognitive autonomy, according to Little, is the learners' ability to use effective strategies to relate learning to real-life situations using mental processes such as critical thinking, understanding, processing, analysing, transferring and applying knowledge employed by learners, who become active constructors of knowledge rather than passive recipients.

The metacognitive autonomy involves learners' awareness and regulation of their own learning processes, when planning, monitoring, and reflecting on their progress regularly to identify strengths and weaknesses and adjust their strategies accordingly. In fact, Benson and other researchers have emphasized that metacognitive skills are central to autonomy because they allow learners to control their learning effectively. In other words, without metacognitive awareness, learners may possess knowledge but lack the ability to use it efficiently.

The motivational or affective autonomy relates to learners' emotions, attitudes, and motivation which can significantly affect the development of autonomy. Research indicates that motivation plays

a crucial role in sustaining autonomous behaviour among learners and boosting their willingness to take responsibility and persist in the face of challenges. Thus, autonomous learners are typically characterized by intrinsic motivation, self-confidence, and a positive attitude toward learning, so learners who are internally motivated are more likely to engage in self-directed learning and maintain long-term commitment.

According to Holec (1981), behavioral autonomy involves making decisions about learning objectives, content, methods, and evaluation. This dimension of autonomy highlights the practical application of autonomy, demonstrating how learners actively translate their abilities and intentions into observable and/or concrete actions. Behavioral autonomy refers to the observable actions that learners actively take to manage their learning, including setting goals, selecting resources, practicing language skills, and evaluating outcomes both inside and outside the classroom.

The social dimension emphasizes the role of interaction and collaboration in developing autonomy. Hence, learners develop autonomy through interaction with teachers, peers, and the learning environment. To confirm, Little highlighted that autonomy develops through social interaction and is influenced by cultural and contextual factors. Collaborative learning, peer feedback, and group work can enhance autonomy by providing opportunities for negotiation, reflection, and shared responsibility. In addition, sociocultural theories suggest that learning occurs within a social context, where learners construct knowledge through interaction. Therefore, autonomy should be viewed as interdependence rather than independence.

To conclude, learner autonomy is a complex and evolving concept that has transformed language education. From Holec's foundational notion of responsibility to later multidimensional perspectives, autonomy has become central to effective learning. Its dimensions—cognitive, metacognitive, motivational, behavioral, and social—highlight the multifaceted nature of autonomous learning. In EFL settings, despite contextual challenges, fostering autonomy remains essential for achieving meaningful and sustainable language learning outcomes. Self-regulation plays a crucial role in the development of learner autonomy, for it produces active and strategic learners who become able to take control of their own learning processes as to make informed decisions, to manage their learning resources effectively, and to assess their progress independently. As a point of fact, strategic learners gradually develop greater independence and responsibility for their learning. By regulating their cognitive, motivational, and behavioral processes, they become more capable of directing their learning efforts, overcoming challenges, and achieving their academic goals autonomously. Generally speaking, self-regulation serves as a fundamental mechanism for fostering learner autonomy and promoting lifelong learning skills.

II. Research Methodology

1. Statement of Problem

In recent years, learner autonomy has become a key objective in EFL education, as it enables students to take greater responsibility for their learning and continue developing their language skills beyond the classroom. However, many EFL learners still struggle to learn independently and often rely heavily on teacher guidance. Self-regulated learning strategies, such as planning, monitoring, and self-evaluation, are considered essential tools for fostering autonomy, yet little is known about the specific strategies EFL learners employ to regulate their learning. Therefore, this study seeks to explore the

self-regulation strategies used by EFL learners to foster autonomous learning and to gain a deeper understanding of how these strategies contribute to the development of learner autonomy.

2. Research Objective

This study aims :

- To explore the self-regulation strategies used by EFL learners to foster autonomous learning.

3. Research Question

On the basis of the previously stated objective, this study tends to answer the following question:

- What self-regulation strategies do EFL learners use to foster autonomous learning?

4. Design, Instrument and Participants

This study aims to explore the self-regulation strategies used by EFL students to foster their learning autonomy. Thus, it adopts an exploratory research design. Saunders, Lewis and Thornhill (2016) view an exploratory research design as a valuable means of finding out ‘what is happening; to seek new insights; to ask questions and to assess phenomena in a new light.

The sampling in this study consists of 72 EFL students enrolled at École Normale Supérieure (ENS). The selection of participants is based on convenience sampling, a non-probability sampling technique that involves recruiting individuals who are readily available and accessible to the researcher. According to Rahi (2017) and MacNealy (1999), convenience sampling enables researchers to collect data from participants who are easily available and willing to take part in the study. This technique is widely employed in educational research due to its practicality, cost-effectiveness, and time efficiency (Alvi, 2016). Moreover, it eliminates the need for a complete sampling frame and facilitates data collection from accessible populations (Acharya et al., 2013). Given the accessibility of the target participants, convenience sampling is considered appropriate for the present study. Nevertheless, as noted by Acharya et al. (2013) and Koerber and McMichael (2008), findings derived from convenience samples should be interpreted with caution, as their generalizability beyond the studied sample remains limited.

Adopting an exploratory research design, this study primarily opts for a questionnaire as the main research instrument, designed to gather quantitative data from the participants who received the questionnaire in the form of a Google forms link via email.

This survey is structured into seven distinct sections designed to gather comprehensive data regarding self-regulation strategies used by EFL students to foster their autonomy.

Section one is background information which aims to collect demographic and general academic details from the participants, likely using a closed ended questions: multiple-choice for gender and age range.

Section two is about EFL Learners' awareness of autonomous learning. This section investigates EFL learners' understanding of the concept of learner autonomy and their perceptions of its importance in language learning. It explores whether students recognize their role in taking responsibility for their learning and making independent decisions. Furthermore, it examines the extent to which learners value autonomy as a means of improving their language proficiency and academic success.

Section three tackles EFL students' practices to achieve autonomy. This section focuses on the actual practices adopted by EFL learners to become more autonomous. It examines the learning

behaviors and activities students engage in outside and inside the classroom, such as independent study, resource utilization, and self-directed learning. The section aims to determine how frequently learners implement autonomy-related practices in their language learning journey.

Section four deals with EFL students' awareness of self-regulated learning strategies. This section explores learners' awareness of self-regulated learning strategies and their role in promoting effective language learning. It investigates whether students understand the importance of planning, monitoring, and evaluating their learning processes. Additionally, it examines learners' perceptions of how these strategies contribute to greater independence and academic achievement.

Section five is about planning strategies used by EFL students to foster their autonomy. This section examines the planning strategies employed by EFL learners to support autonomous learning. It focuses on learners' ability to set goals, organize learning tasks, allocate study time, and prepare learning resources before engaging in language activities. The section seeks to identify the extent to which students use planning as a proactive approach to managing their learning.

Section six is about monitoring strategies used by EFL students to foster their autonomy. This section addresses the monitoring strategies used by learners during the learning process. It investigates how students track their progress, assess their understanding, and adjust their learning methods when necessary. By examining these practices, the section highlights the role of self-monitoring in helping learners maintain control over their learning and improve their performance.

Section seven is about evaluation strategies used by EFL students to foster their autonomy. This section explores the evaluation strategies that learners employ after completing learning tasks. It focuses on learners' ability to reflect on their performance, identify strengths and weaknesses, and assess the effectiveness of the strategies they have used. The section aims to demonstrate how self-evaluation contributes to continuous improvement and the development of learner autonomy.

III. Findings

1. Section One: Background Information

This section presents the demographic and academic characteristics of the participants. It aims to collect general background information, including gender, academic level, language proficiency, and years of English language learning experience. Such information provides a contextual understanding of the sample and facilitates the interpretation of the study findings.

1.1. Gender of the Participants

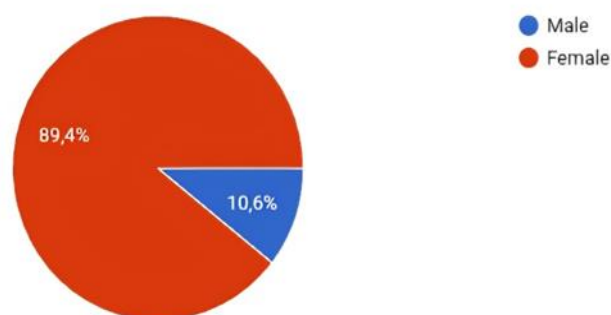


Figure 2. The Participants' Gender

Figure 2 shows the gender of the participants. The results indicate a substantial gender imbalance among the participants. Female students constitute the overwhelming majority of the sample, accounting for 89.4%, whereas male students represent only 10.6%. This distribution suggests that female learners are significantly more represented in the study than their male counterparts.

1.2.The Participants' Level of Study

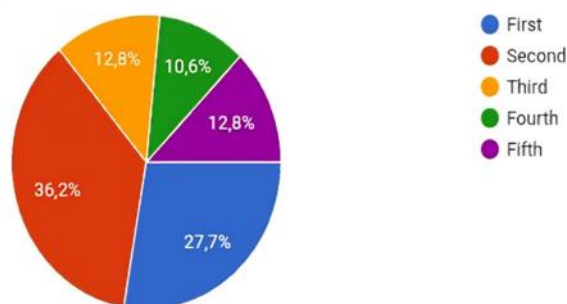


Figure 3. The Participants' Level of Study

Figure three presents the participants' level of study. As shown in the figure, the results reveal that the participants were drawn from all five academic levels, providing a diverse representation of students at different stages of their university studies. The largest proportion of participants were second-year students (36.2%), followed by first-year students (27.7%). Together, these two groups account for 63.9% of the sample, indicating that the majority of respondents are in the early stages of their academic journey. In contrast, third-year and fifth-year students each represent 12.8% of the sample, while fourth-year students constitute the smallest group (10.6%). The relatively lower representation of students from the higher academic levels may be attributed to their limited availability or lower participation rates during data collection.

1.3.The Participants' Experience of English Language Learning

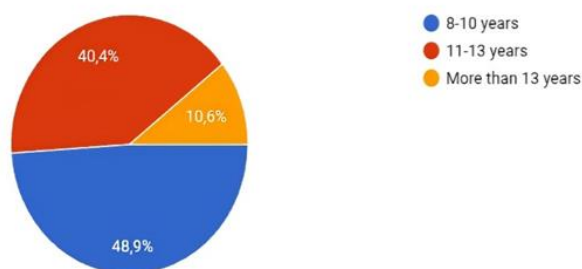


Figure 4. The Participants' Experience of English Language Learning

Figure four displays the participants' experience of English language learning. The results indicate that the majority of participants have extensive experience in learning English. Nearly half of the respondents (48.9%) reported having studied English for 8 to 10 years, making this the largest group in the sample. This suggests that most participants have been exposed to English language instruction for a considerable period and are likely familiar with various language learning practices and strategies. A substantial proportion of participants (40.4%) indicated 10 to 13 years of English learning experience. Combined with the previous category, 89.3% of the respondents have studied English for at least eight years, reflecting a relatively experienced group of EFL learners. Such prolonged exposure to English may contribute to greater awareness of learning strategies and autonomous learning practices. Only 10.6% of the participants reported having more than 13 years of experience learning English. Although this group represents the smallest proportion of the sample, it reflects learners with a very long history of English language study who may possess more advanced language skills and learning experiences.

1.4. The Participants' English Language Proficiency

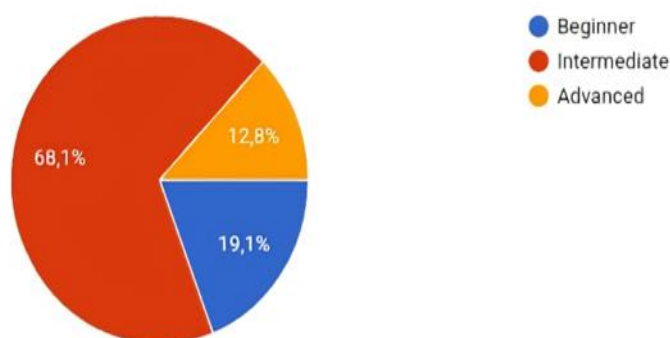


Figure 5. The Participants' English Language Proficiency

Figure five shows the participants' English Language proficiency. The results indicate that the majority of the participants perceive themselves as having an intermediate level of English proficiency, representing 68.1% of the sample. This suggests that most respondents possess a moderate command of the English language, enabling them to engage in academic tasks and communicate effectively while still facing certain linguistic challenges. In contrast, 19.1% of the participants identified themselves as beginners. Although this group constitutes less than one-fifth of the sample, its presence highlights the diversity of language proficiency levels among the participants. These learners may require additional support and guidance in developing their language skills and autonomous learning abilities. The smallest proportion of participants (12.8%) reported having an advanced level of English proficiency. Despite their limited number, advanced learners are likely to demonstrate greater confidence, linguistic competence, and familiarity with independent learning strategies.

2. Section Two: Learners' Awareness of Autonomous Learning

This section examines EFL learners' awareness and understanding of autonomous learning. It explores learners' perceptions of their responsibility in the learning process, their ability to make

independent learning decisions, and their beliefs regarding the importance of autonomy in enhancing language learning and academic achievement.

Statments	SD	D	N	A	SA
Students should take responsibility for their own learning.	04.3%	02.1%	06.4%	53.2%	34%
Learning English requires effort outside the classroom.	00%	02.1%	10.6%	29.8%	57.4%
Autonomous learning helps improve language skills.	00%	04.3%	23.4%	40.4%	31.9%
Independent learning makes students more successful.	00%	04.3%	17%	44.7%	34%

Table 2. Learners' Awareness of Autonomous Learning

Table 2 presents the participants' responses regarding their awareness of autonomous learning. Overall, the findings indicate a high level of awareness among EFL learners concerning the principles and benefits of autonomous learning. For all statements, the percentages of agreement and strong agreement considerably exceed those of disagreement, suggesting that the participants generally hold positive attitudes toward autonomous learning.

The first statement, "Students should take responsibility for their own learning," received strong support from the participants, with 53.2% agreeing and 34% strongly agreeing, representing a total positive response rate of 87.2%. Only 6.4% remained neutral, while 6.4% expressed disagreement. This result indicates that most learners recognize personal responsibility as a fundamental component of successful learning, reflecting one of the core principles of learner autonomy.

Similarly, the second statement, "Learning English requires effort outside the classroom," obtained the highest level of agreement. More than half of the respondents (57.4%) strongly agreed and 29.8% agreed, yielding a combined positive response rate of 87.2%. Although 10.9% remained neutral, only 02.1% disagreed. This finding demonstrates that learners are aware that language learning extends beyond formal classroom instruction and requires continuous practice and engagement in independent learning activities.

Regarding the statement "Autonomous learning helps improve language skills," the majority of participants expressed positive views, with 40.4% agreeing and 31.9% strongly agreeing. Although 23.4% remained neutral, only 4.3% disagreed. These findings suggest that learners generally perceive autonomous learning as an effective means of enhancing their language proficiency.

Likewise, the statement "Independent learning makes students more successful" received substantial support, with 44.7% agreeing and 34% strongly agreeing, accounting for 78.7% of positive responses. The relatively high percentage of neutral responses (17%) may indicate that some learners

are not fully convinced of the direct relationship between independent learning and academic success, possibly due to limited experience with autonomous learning practices.

3. Section Three: Learners' Practices to Achieve Autonomous Learning

This section investigates the extent to which EFL learners engage in autonomous learning practices. It focuses on the learning activities and behaviors students adopt both inside and outside the classroom to support their language development, with particular attention to independent learning and self-directed engagement.

Statments	Always	Often	Sometimes	Rarely	Never
I study English outside classroom for hours.	08.5%	31.3%	53.2%	14.9%	02.1%
I use online resources (videos, websites, apps) to improve my English.	55.3%	27.7%	12.8%	02.1%	02.1%
I try to practice English through reading, writing, listening, or speaking activities.	27.7%	34%	31.9%	04.3%	02.1%
I search for additional materials to improve my language skills.	27.7%	19.1%	40.4%	10.6%	02.1%
I practice English even when it is not required by my teacher. 47 réponses	36.2%	23.4%	23.4%	02.1%	04.3%

Table 3. Learners' Practices to Achieve Autonomous Learning

Table 3 presents the participants' self-reported practices related to autonomous learning. The findings indicate that EFL learners engage in various autonomous learning activities, although the frequency of these practices differs across the examined behaviors.

The statement "I study English outside the classroom for hours" received the highest percentage in the "Sometimes" category (53.2%), followed by "Often" (31.3%). Only 8.5% reported always studying English outside class, while a small proportion rarely (14.9%) or never (2.1%) did so. These results indicate that although learners recognize the importance of extra-classroom learning, many engage in it irregularly rather than consistently.

The second statement, "I use online resources (videos, websites, apps) to improve my English," received the strongest positive responses. More than half of the participants (55.3%) reported always using online resources, while 27.7% did so often. If some 12.8% reported sometimes, the rest, 04.3%, are divided equally between rarely and never. This demonstrates that digital technologies have become a major tool supporting autonomous language learning and that learners actively exploit online opportunities to improve their English proficiency.

Similarly, participants reported frequent engagement in language practice activities. For the statement “I try to practice English through reading, writing, listening, or speaking activities,” 34% answered often, and 31.9% replied sometimes, while 27.7% selected always. Only a small percentage reported rarely (4.3%) or never (2.1%) practicing English. This finding suggests that learners make deliberate efforts to develop their language skills through various communicative activities.

Regarding the statement “I search for additional materials to improve my language skills,” 40.4% of the participants replied sometimes, and 27.7% reported doing so always, while 19.1% selected often. If 10.6% answered rarely, 02.1% said never. The findings indicate that learners demonstrate a moderate tendency to search for additional materials to improve their language skills. Though these results suggest a positive but not fully developed tendency toward autonomous learning, highlighting the need to encourage learners to make more regular use of supplementary learning materials.

Finally, the statement “I practice English even when it is not required by my teacher” reveals a notable degree of learner initiative. More than one-third of participants (36.2%) reported always engaging in voluntary practice, while 23.4% selected often and another 23.4% selected sometimes. only 04.3 % of the participants replied never, and 02.1% answered rarely. This finding indicates that many learners are motivated to learn independently and do not rely solely on teacher-directed activities.

4. Section Four: Learners’ Awareness of Self-regulated Learning Strategies

This section explores learners’ awareness of self-regulated learning strategies and their role in fostering effective learning. It examines students’ understanding of planning, monitoring, and evaluation strategies, as well as their perceptions of how these strategies contribute to learner autonomy and academic success.

Statments	Yes	No
Do you control and organize your own learning process?	74.5%	25.5%
Do you self-regulate your learning to improve it?	80.9%	19.1%
Do you plan your study before starting a task to enhance you learning results?	85.1%	14.9%
Do you check your understanding during learning?	91.5%	08.5%
Do you identify your mistakes when learning?	91.5%	08.5%
Do you set goals for your learning?	80.9%	19.1%
Do you evaluate your work after completing a task?	72.3%	27.7%

Table 4. Learners’ Awareness of Self-regulated Learning Strategies

Table four displays the results of the learners’ awareness of self-regulated strategies. As shown in the table, the results presented in the table indicate that the majority of participants demonstrate a high level of self-regulation and autonomy in managing their learning process.

Concerning the question “Do you control and organize your own learning process?”, 74.5% of the respondents answered Yes, while 25.5% answered No. This suggests that most students take responsibility for managing their learning activities independently.

Similarly, 80.9% of the participants reported that they self-regulate their learning to improve it, compared to 19.1% who do not. This finding indicates that a large proportion of students actively monitor and adjust their learning strategies to achieve better outcomes.

Regarding study planning, 85.1% of the respondents stated that they plan their study before starting a task, whereas only 14.9% do not. This demonstrates that planning is a common practice among the participants and reflects a proactive approach to learning.

The highest percentages were recorded for checking understanding during learning and identifying mistakes when learning, with 91.5% of participants answering Yes to both statements and only 8.5% responding No. These results suggest that most students engage in continuous monitoring of their learning and are aware of the importance of recognizing errors as part of the learning process.

The results indicate that an overwhelming majority of the participants (91.5%) reported that they identify their mistakes when learning, whereas only 8.5% stated that they do not. This finding demonstrates that most EFL learners possess a strong awareness of their learning performance and are capable of recognizing errors during the learning process.

Furthermore, 80.9% of the respondents indicated that they set goals for their learning, while 19.1% do not. This finding highlights the prevalence of goal-setting behaviors among students, which are often associated with increased motivation and academic achievement.

Finally, 72.3% of the participants reported that they evaluate their work after completing a task, whereas 27.7% do not. Although the majority engage in self-evaluation, this item received the lowest positive response among the self-regulation practices examined.

5. Section Five: Planning Strategies Used by Learners when Learning

This section focuses on the planning strategies employed by EFL learners to manage their learning effectively. It investigates learners’ practices related to goal setting, study organization, time management, and resource preparation, highlighting the role of planning in promoting autonomous learning.

Statments	Always	Often	Sometimes	Rarely	Never
I set clear goals when learning English	27.7%	19.1%	48.9%	04.3%	00%
I plan how to study before starting a learning task.	40.4%	25.5%	23.4%	08.5%	02.1%
I organize my study time to learn English effectively.	27.7%	21.3%	31.9%	14.9%	04.3%
I decide which strategies to use before starting a task.	36.2%	10.6%	25.5%	23.4%	04.3%
I prepare the materials I need before studying.	42.6%	23.4%	21.3%	08.5%	04.3%

Table 5. Planning Strategies Used by Learners when Learning

Table 5 presents the planning strategies used by EFL learners when learning English. It seems the findings indicate that the participants employ planning strategies to a considerable extent, suggesting that they actively engage in the forethought phase of self-regulated learning.

Regarding the statement “I set clear goals when learning English,” the largest proportion of participants (48.9%) reported doing so sometimes, while 27.7% indicated always and 19.1% often. Only a small minority selected rarely (4.3%), and none chose never. These findings suggest that although learners recognize the importance of goal setting, many do not consistently establish clear learning objectives before engaging in language-learning activities.

For the statement “I plan how to study before starting a learning task,” 40.4% of the participants reported always doing so, while 25.5% selected often, and 23.4% do sometimes. Together, these percentages indicate that 89.3% of the learners regularly plan their learning activities in advance. However, only 08.5% rarely and 02.1% never plan their learning tasks. This result demonstrates a relatively strong tendency toward organized and purposeful learning behavior.

Similarly, when asked whether they organize their study time to learn English effectively, 31.9% responded sometimes, 27.7% always, and 21.3% often. Although the majority engage in time-management practices, the prominence of the “sometimes” category suggests that effective scheduling is not yet a consistent habit for all learners. 14.9% and 04.3% answered, respectively, rarely and never organise their time when learning English.

Concerning the statement “I decide which strategies to use before starting a task,” 36.2% selected always, while 25.5% chose sometimes and 10.6% often. However, a notable proportion reported rarely (23.4%), and only 04.3% replied never. This finding indicates variation among learners in their ability to deliberately select appropriate learning strategies prior to undertaking academic tasks.

Finally, for the statement “I prepare the materials I need before studying,” 42.6% reported always doing so, 23.4 % often, and 21.3% sometimes, while only a small percentage selected rarely (8.5%) or never (4.3%). This suggests that most learners demonstrate preparedness and organization before engaging in learning activities.

6. Section Six: Monitoring Strategies Used by Learners when Learning

This section addresses the monitoring strategies used by learners during the learning process. It examines how students track their understanding, monitor their progress, identify learning difficulties, and modify their strategies when necessary. The section emphasizes the importance of self-monitoring in maintaining control over learning and achieving learning objectives.

Statments	Always	Often	Sometimes	Rarely	Never
I check my understanding while reading or listening in English.	55.3 %	27.7%	14.9%	00%	02.1%
I try to identify my mistakes while completing tasks.	55.3%	25.5%	19.1%	00%	00%
I change my learning strategy if something does not work.	44.7%	25.5%	23.4%	04.3%	02.1%
I pay attention to my progress while learning English.	42.6%	40.4%	12.8%	04.3%	00%

I ask for help when I face difficulties in learning.	36.2%	19.1%	23.4%	14.9%	06.4%
---	-------	-------	-------	-------	-------

Table 6. Monitoring Strategies Used by Learners when Learning

Table 6 presents the monitoring strategies used by EFL learners during the learning process. The findings indicate that the participants frequently engage in monitoring behaviors, suggesting a relatively high level of self-regulation and awareness of their learning progress.

Regarding the statement “I check my understanding while reading or listening in English,” the majority of participants reported doing so always (55.3%), while 27.7% selected often and 14.9% sometimes. Only 2.1% indicated never. This result suggests that most learners actively monitor their comprehension during language-learning activities.

Similarly, for the statement “I try to identify my mistakes while completing tasks,” 55.3% of the respondents selected always, 25.5% often, and 19.1% sometimes. Notably, none of the participants chose rarely or never, indicating a strong tendency among learners to recognize and monitor their errors during task completion.

Concerning the statement “I change my learning strategy if something does not work,” 44.7% reported always doing so, while 25.5% selected often and 23.4% sometimes. This finding demonstrates that most learners are willing to adapt their approaches when faced with learning difficulties, reflecting strategic flexibility.

For the statement “I pay attention to my progress while learning English,” 42.6% reported always and 40.4% often, whereas only 12.8% selected sometimes. These results reveal that the vast majority of learners consistently monitor their progress and learning development.

Finally, regarding “I ask for help when I face difficulties in learning,” 36.2% selected always, 19.1% often, and 23.4% sometimes. However, 14.9% reported rarely and 6.4% never seeking assistance. Although most learners appear willing to seek support when necessary, some prefer to cope with difficulties independently.

7. Section Seven: Evaluating Strategies Used by Learners when Learning

This section explores the evaluation strategies adopted by EFL learners after completing learning tasks. It investigates learners’ ability to assess their performance, reflect on their learning experiences, identify strengths and weaknesses, and adjust their future learning strategies. The section highlights the contribution of self-evaluation to continuous improvement and the development of learner autonomy.

Statments	Always	Often	Sometimes	Rarely	Never
I evaluate my performance after completing a task.	21.3%	42.6%	27.7%	06.4%	02.1%
I reflect on my mistakes to avoid repeating them.	51.1%	25.5%	19.1%	04.3%	00%
I think about what I have learned after finishing an activity.	51.1%	31.1%	14.9%	00%	02.1%
I assess whether I achieved my learning goals.	29.8%	34%	36.2%	00%	00%

I try to improve my learning strategies after evaluating my work.	44.7%	23.4%	23.4%	06.4%	02.1%
--	-------	-------	-------	-------	-------

Table 7. Evaluating Strategies Used by Learners when Learning

Table 7 displays evaluation strategies used by the participants when learning. The results indicate that EFL learners frequently employ evaluation strategies as part of their self-regulated learning process.

Regarding the statement “I evaluate my performance after completing a task,” the majority of participants reported evaluating their performance regularly, with 42.6% selecting often, 27.7% answered sometimes, and 21.3% selecting always. This suggests that most learners engage in post-task reflection and attempt to assess the quality of their work. Only a small proportion indicated that they rarely (06.4%) or never (02.1%) evaluate their performance.

For the statement “I reflect on my mistakes to avoid repeating them,” more than half of the participants (51.1%) reported always doing so, while 25.5% selected often, and 19.1% choose sometimes. These findings indicate that learners recognize the importance of learning from errors and using feedback from previous experiences to improve future performance. Only 04.3% of the participants selected rarely.

Similarly, the statement “I think about what I have learned after finishing an activity” received very positive responses, with 51.1% selecting always, 31.1% selecting often, and 14.9% answered sometimes. This demonstrates that learners frequently engage in reflective thinking and attempt to consolidate their learning after completing academic tasks.

Concerning the statement “I assess whether I achieved my learning goals,” 34% of the participants selected often, and 29.8% selected always, while 36.2% selected sometimes. Although the results remain positive overall, they suggest that goal evaluation is practiced less consistently than reflection on mistakes or learning outcomes.

Finally, for the statement “I try to improve my learning strategies after evaluating my work,” 44.7% of the participants selected always, 23.4% selected often, and 23.4% answered sometimes. The rest are divided between rarely (06.4%) and never (02.1%) try doing so.

8. Discussion

In light of the study’s objective of exploring the self-regulation strategies used by EFL learners to foster autonomous learning, the findings reveal several noteworthy patterns regarding learners’ awareness, practices, and strategy use. The results are discussed in relation to the research questions and relevant literature on learner autonomy and self-regulated learning.

The demographic and academic profile of the participants provides important contextual information for interpreting the study findings. The sample was predominantly composed of female students, reflecting the demographic composition commonly observed in EFL programs where female enrollment tends to exceed that of males. Consequently, the findings are likely to be more representative of female learners’ experiences, perceptions, and learning practices. Although the inclusion of both genders contributes to the diversity of the sample, the relatively small proportion of male participants limits the possibility of conducting meaningful gender-based comparisons. Therefore, caution should be exercised when generalizing the findings across male and female EFL learners. Regarding academic level, the majority of participants were first- and second-year students.

This distribution suggests that the findings may largely reflect the perspectives and learning practices of students who are still in the early stages of their university education. However, the inclusion of learners from all academic levels enhances the comprehensiveness of the study by capturing viewpoints from students with varying degrees of academic maturity and learning experience. As a result, the study provides a broader understanding of the phenomenon under investigation across different stages of EFL education. The participants' experience in learning English further strengthens the relevance of the study. Most respondents reported having between eight and thirteen years of English language learning experience, indicating that they are not novice learners. Such extensive exposure to English suggests that participants have had sufficient opportunities to develop and apply various learning strategies, including self-regulation and autonomous learning practices. Therefore, their responses are likely to provide valuable insights into the strategies employed by experienced EFL learners. In terms of language proficiency, the sample was mainly composed of intermediate-level learners, which is consistent with their status as university EFL students. This indicates that the findings primarily represent learners who possess a functional command of English but are still striving to enhance their language competence. At the same time, the presence of beginner and advanced learners enriches the study by incorporating perspectives from students with different proficiency levels, thereby offering a more comprehensive understanding of learners' awareness and use of self-regulation strategies to foster autonomous learning.

The findings reveal that EFL learners possess a strong awareness and a positive conceptual understanding of autonomous learning and its importance in language education. Participants acknowledge their responsibility for learning, recognize the necessity of learning beyond classroom boundaries, and understand the positive role of independent learning in improving language skills and academic achievement. These findings are consistent with the literature on learner autonomy. According to Holec (1981), autonomous learners are characterized by their ability to take responsibility for decisions related to their learning. Similarly, Little (1991) argues that autonomy involves learners' capacity to take charge of their own learning through reflection, self-direction, and independent action. The high level of agreement regarding learning outside the classroom also supports Benson's (2011) view that autonomy extends learning opportunities beyond formal educational settings. This positive awareness provides a solid foundation for the development of self-regulated learning strategies and autonomous learning behaviors among EFL learners. However, the relatively high neutral responses for some statements, particularly those concerning the effectiveness of autonomous learning and its contribution to success, suggest that awareness does not necessarily guarantee implementation. Moreover, some learners may understand the concept of autonomy theoretically but may not consistently apply autonomous learning practices in their daily learning routines. This highlights the need for teachers to provide learners with opportunities to develop practical autonomous learning skills alongside fostering positive attitudes toward autonomy.

In the third section, the findings demonstrate that EFL learners engage in a variety of autonomous learning practices, reflecting their willingness to assume responsibility for their own language development. Among the examined practices, the use of online resources emerged as the most frequent activity, highlighting the growing role of technology in promoting learner autonomy. This result supports Benson's (2011) view that autonomous learning is facilitated by access to diverse

learning resources that allow learners to extend their learning beyond the classroom environment. The findings also reveal that many learners voluntarily practice English and engage in language-learning activities even when such activities are not required by their teachers. This voluntarily behavior reflects an important feature of autonomous learners, namely the ability to take initiative and direct their own learning process (Holec, 1981). The willingness to practice independently suggests that learners recognize the importance of continuous exposure to the target language for improving their proficiency. However, the results also indicate that some autonomous learning practices are not performed consistently. For instance, studying English outside the classroom for extended periods was most frequently reported as occurring only sometimes. This suggests that while learners are aware of the value of independent study, they may encounter obstacles such as time constraints, academic workload, lack of motivation, or difficulties in maintaining regular learning routines. Furthermore, the relatively moderate percentages related to searching for additional learning materials indicate that some learners still rely heavily on resources provided by teachers rather than actively seeking new sources of knowledge. This finding aligns with previous research suggesting that awareness of learner autonomy does not always translate into fully autonomous learning behaviors. Overall, the findings suggest that the participants demonstrate a satisfactory level of autonomous learning practice, particularly through technology use, independent language practice, and voluntary engagement with English. Nevertheless, the varying frequencies across different practices indicate that learners have not yet reached a fully autonomous stage and may benefit from further support and training in developing consistent autonomous learning habits. These results reinforce the importance of encouraging learners to engage more systematically in self-directed learning activities to strengthen their autonomy and language development.

In the fourth Section, the findings reveal that the participants possess strong self-regulatory learning skills. Most students reported engaging in essential self-regulation practices, including planning, monitoring comprehension, identifying mistakes, setting goals, and evaluating completed tasks. These behaviors are widely recognized as key components of learner autonomy and effective learning. Moreover, their ability to plan, monitor, and evaluate their learning reflects a positive learning profile that can support lifelong learning and academic achievement. Nevertheless, further efforts may be needed to strengthen self-evaluation practices, ensuring that all students engage in comprehensive reflection on their learning experiences.

For the fifth section, planning strategies, a key component of the forethought phase in self-regulated learning models, including setting goals, organizing resources, managing time, and determining appropriate strategies before performing a task, which reflects a satisfactory level of self-regulation and learner autonomy. According to Zimmerman's cyclical model, effective planning enables learners to approach learning tasks systematically and enhances the likelihood of successful learning outcomes. For the results, generally speaking, the findings demonstrate that EFL learners employ a variety of planning strategies and exhibit a moderate to high level of engagement in self-regulated learning. While most learners regularly plan their studies, prepare learning materials, and manage their learning process, the inconsistent use of goal-setting and strategic decision-making suggests that there is still room for developing more systematic and effective planning habits. These

results confirm that planning strategies play an important role in fostering learner autonomy and supporting successful language learning

As for the sixth section, monitoring occurs during the performance phase of learning and involves observing one's understanding, progress, and strategy effectiveness while completing academic tasks. Effective monitoring enables learners to identify problems, adjust their learning behaviors, and maintain progress toward their goals. The high percentages recorded for checking understanding and identifying mistakes suggest that learners possess strong metacognitive awareness which help them to actively supervise their learning process. Such behaviors are characteristic of self-regulated learners who continuously compare their performance with desired learning outcomes. The findings also show that many learners modify and adapt their learning strategies when existing approaches prove ineffective. As monitoring is not limited to observing but also adjusting performance to improve learning outcomes, learners who can adapt their strategies are generally better equipped to overcome learning obstacles and achieve their academic goals. Furthermore, the results also confirm that students regularly pay attention and concentrate to progress their English learning, and this continuous awareness of progress helps learners remain focused, motivated, and capable of regulating their efforts throughout the learning process. However, the findings concerning help-seeking behavior reveal a slightly different pattern. Although most participants seek assistance when encountering difficulties, a noticeable proportion reported rarely or never asking for help. This may indicate that some learners prefer independent problem-solving or may hesitate to seek support due to confidence, motivation, or contextual factors.

Evaluation strategies constitute the self-reflection phase of self-regulated learning, during which learners assess their performance, reflect on their accomplishments, identify areas of weakness, and determine appropriate actions to enhance future learning outcomes. The findings of the seventh section reveal that participants demonstrate a strong use of evaluation strategies. The high percentages associated with reflecting on mistakes and reviewing learned content indicate that learners possess a considerable degree of metacognitive awareness. Furthermore, the tendency to modify learning strategies following evaluation suggests that learners not only assess their performance but also utilize the insights gained from this process to improve subsequent learning experiences. The results also show that most participants regularly evaluate their performance and use the outcomes of this evaluation to adjust their learning approaches accordingly. Such practices are characteristic of self-regulated learners who actively engage in self-reflection and make informed decisions about their future learning. Therefore, the findings highlight the significant role of evaluation strategies in fostering learner autonomy, promoting continuous improvement, and enhancing the effectiveness of English language learning among the participants.

Conclusion

The present study sought to explore the self-regulation strategies employed by EFL learners to foster autonomous learning. The findings indicate that the participants possess a strong awareness of learner autonomy and recognize the importance of taking responsibility for their own learning. They acknowledge the value of learning beyond the classroom and demonstrate positive attitudes toward independent language learning. In addition, the results reveal that learners engage in a variety of autonomous learning practices, particularly through the use of online resources and voluntary

engagement in English-language activities. The study further demonstrates that participants make considerable use of self-regulation strategies across the three major phases of self-regulated learning: planning, monitoring, and evaluation. Learners regularly plan their learning activities, monitor their understanding and progress, identify and correct their mistakes, and evaluate their performance to improve future learning outcomes. Such practices reflect a high level of metacognitive awareness and indicate that the participants are capable of managing significant aspects of their own learning process. The study concludes that self-regulation strategies play a crucial role in fostering learner autonomy among EFL students. By enabling learners to plan, monitor, and evaluate their learning effectively, these strategies contribute to greater independence, continuous improvement, and more successful language learning outcomes.

On the basis of the attained results, the following pedagogical recommendations are suggested:

- **Integrate Explicit Training in Self-Regulated Learning Strategies:** EFL teachers should explicitly teach planning, monitoring, and evaluation strategies rather than assuming that learners will develop them naturally. Classroom activities should include goal-setting exercises, self-monitoring checklists, reflective journals, and self-assessment tasks to strengthen learners' self-regulatory abilities.
- **Promote Goal-Oriented and Time-Management Practices:** Teachers should encourage students to establish clear learning goals and create realistic study schedules. Providing learners with planning templates, learning contracts, and progress-tracking tools can help them develop more systematic and effective autonomous learning habits.
- **Encourage the Effective Use of Digital Learning Resources:** Since learners frequently rely on online resources, instructors should guide them in selecting and using reliable digital tools, educational websites, language-learning applications, and AI-supported platforms. This can enhance independent learning while ensuring the quality of learning experiences.
- **Foster a Supportive Environment for Reflection and Help-Seeking:** Teachers should create a classroom culture that values reflection, collaboration, and help-seeking. Regular feedback sessions, peer-learning activities, and opportunities for discussing learning difficulties can encourage students to seek assistance when needed and develop deeper self-awareness of their learning process.

References

1. Abun, D., Magallanes, T., Mansueto, J., Agoot, F., & Barroga, J. (2018). Religious Self-Regulation of Senior High School Students of Catholic High Schools in Ilocos Region, Phillipines and Their Sunday Eucharistic Celebration Attend. *International journal of advanced research*, 6(3), 2320-5407.
2. Acharya, A. S., Prakash, A., Saxena, P., & Nigam, A. (2013). Sampling: Why and how of it. *Indian Journal of Medical Specialties*, 4(2), 330-333. DOI: 10.7713/ijms.2013.0032.
3. Alvi, M. (2016). A manual for selecting sampling techniques in research. In Munich Personal RePEc Archive. https://mpra.ub.uni-muenchen.de/70218/1/MPRA_paper_70218.pdf

4. Ananiadou, K., & Claro, M. (2009). 21st Century Skills and Competences for New Millennium Learners in OECD Countries. OECD Education Working Papers, No. 41. Paris: OECD Publishing. <http://dx.doi.org/10.1787/218525261154>.
5. Annalakshmi, N. (2019). Resilience and academic achievement among rural adolescents at-risk: Role of self-regulation and attachment style. *Indian Journal of Positive Psychology*, 10(4), 260-266.
6. Benson, P. (1997). *The Philosophy and Politics of Learner Autonomy*. In Benson & Voller (eds.), 18–34.
7. Benson, P. (2011). *Teaching and researching autonomy*. London: Routledge.
8. Boekaerts, M. (1991). Subjective competence, appraisals and self-assessment. *Learn. Instr.* 1, 1–17. Doi: 10.1016/0959-4752(91)90016-2.
9. Boekaerts, M., Pintrich, P. R., & Zeidner, M. (Eds.). (2000). *Handbook of self-regulation*. San Diego: Academic Press.
10. Boekaerts, M., and Rozendaal, J. S. (2006). “Self-regulation in Dutch secondary vocational education: need for a more systematic approach to the assessment of self-regulation,” in *Zeitschrift für Berufs- und Wirtschaftspädagogik, Beiheft 20, Selbstgesteuertes Lernen in der beruflichen Bildung*, eds D. Euler, M. Lang, and G. Pätzold (Stuttgart: Franz Steiner), 49–77.
11. Boekaerts, M., and Rozendaal, J. S. (2007). New insights into the self-regulation of writing skills in secondary vocational education. *Z. Psychol.* 215, 152–163. Doi: 10.1027/0044-3409.215.3.164
12. Borg, S., & Al-Busaidi, S. (2012). Teachers’ beliefs and practices regarding learner autonomy. *ELT Journal*, 66(3), 283–292. <https://doi.org/10.1093/elt/ccr065>
13. Cotterall, S. (1995). Developing a course strategy for learner autonomy. *ELT Journal*, 49, 3, 219–227.
14. Crabbe, D., Hoffmann, A., & Cotterall, S. (2001). Examining the discourse of learner Advisory sessions. *AILA Review*, 15, 2-15.
15. Dam, L. (1995). *Learner Autonomy: From Theory to Classroom Practice*. Dublin: Authentik.
16. De Fátima Goulão, M., & Menedez, R. C. (2015). Learner autonomy and self-regulation in eLearning. *Procedia-Social and Behavioral Sciences*, 174, 1900-1907.
17. Dewi, D. S. (2023). The Relationship between Learner Autonomy and Motivation in EFL Speaking Class. *ELP (Journal of English Language Pedagogy)*, 8(2), 169–183. <https://doi.org/10.36665/elp.v8i2.758>.
18. Dornyei, Z., & Ryan, S. (2015). *The psychology of the language learner revisited*. Routledge.
19. Efklides, A. (2011). Interactions of Metacognition With Motivation And Affect in Self-Regulated Learning: The MASRL Model. *EDUCATIONAL PSYCHOLOGIST*, 46(1), 6–25, 2011 DOI: <https://doi.org/10.1080/00461520.2011.538645>.
20. ElFalih, T & Lamrani-Hassani, L. (2024). Empowering Learner Autonomy: EFL Teachers’ Perspectives and Classroom Dynamics. *International Journal of Linguistics and Translation Studies* 5(4).178-210.
21. Grenfell, M. J., & Harris, V. (2017). *Language learner strategies: Contexts, issues and applications in second language learning and teaching*. Bloomsbury Publishing

22. Hadwin, A. F., Järvelä, S., and Miller, M. (2011). "Self-regulated, co-regulated, and socially shared regulation of learning," in *Handbook of Self-Regulation of Learning and Performance*, eds B. J. Zimmerman and D. H. Schunk (New York, NY: Routledge), 65–84.
23. Hamedani, S. H. H. (2013). The relationship between self-efficacy and self-regulation in vocabulary acquisition of Iranian EFL learners. *Journal of Academic and Applied Studies*, 3(1), 20-31.
24. Holec, H. (1981). *Autonomy and Foreign Language Learning*. Pergamon Press, Oxford.
25. Hu, P., Zhang, J. A pathway to learner autonomy: a self-determination theory perspective. *Asia Pacific Educ. Rev.* 18, 147–157 (2017). <https://doi.org/10.1007/s12564-016-9468-z>
26. Hyland, F. (2000). Esl writers and feedback: Giving more autonomy to students. *Language Teaching Research*, 4(1), 33-54.
27. Järvelä, S., and Hadwin, A. F. (2013). New frontiers: regulating learning in CSCL. *Educ. Psychol.* 48, 25–39. Doi: <https://doi.org/10.1080/00461520.2012.748006>.
28. Koerber, A., & McMichael, L. (2008). Qualitative sampling methods: A primer for technical Communicators. *Journal of business and technical communication*, 22(4), 454-473. <https://doi.org/10.1177/1050651908320362>
29. Lin, C. Y., & Gan, X. N. (2014). Taiwanese college students' use of English listening strategies and self-regulated learning. *International Journal on Studies in English Language and Literature*, 2(5), 57-65.
30. Little, D. G. (1991). *Learner Autonomy: Definitions, Issues and Problems*. Authentik Language Learning Resources.
31. Little, D. (1995). Learning as dialogue: The dependence of learner autonomy on teacher autonomy. *System*, 23(2), 175-182.
32. Little, D. (1999). Autonomy in second language learning: Some theoretical perspectives and their practical implications. In C. Edelhoff & R. Weskamp (eds.), *Autonomes fremdsprachenlernen*. Ismaning: Hueber, 22–36.
33. MacNealy, M. S. (1999). *Strategies for Empirical Research in Writing*. Addison Wesley Longman.
34. Maftoon, P., & Tasnimi, M. (2014). Using self-regulation to enhance EFL learners' reading comprehension. *Journal of Language Teaching and Research*, 5(4), 844.
35. Miele, D. B., & Scholer, A. A. (2017). The role of metamotivational monitoring in motivation regulation. *Educational Psychologist*, 53, 1–21. <https://doi.org/10.1080/00461520.2017.1371601>.
36. Nunan, D., Lai, J., & Keobke, K. (1999). Towards autonomous language learning: Strategies, reflection and navigation. In S. Cotterall & D. Crabbe (Eds.), *Learner Autonomy in language learning: Defining the field and effecting change*. Frankfurt: Peter Lang.
37. Panadero, E., & Alonso Tapia, J. (2014). How do students self-regulate?: review of Zimmerman's cyclical model of self-regulated learning. *Anales de psicología*.
38. Pintrich, P. R. (2004). A conceptual framework for assessing motivation and self-regulated learning in college students. *Educ. Psychol. Rev.* 16, 385–407. Doi: 10.1007/s10648-004-0006-x
39. Pintrich, P. R. (2000). "The role of goal orientation in self-regulated learning," in *Handbook of Self-Regulation*, eds M. Boekaerts, P. R. Pintrich, and M. Zeidner (San Diego, CA: Academic Press), 452–502.

40. Putri, A. R. D., & Kuswandono, P. (2020). The roles of critical incidents to construct public senior high school english teachers' identities development. *English Review: Journal of English Education*, 9(1), 47-60.
41. Rahi, S. (2017). Research design and methods: A systematic review of research paradigms, sampling Issues and instruments development. *International Journal of Economics & Management Sciences*, 6(2), 1-5. DOI: <https://doi.org/10.4172/2162-6359.1000403>
42. Reinders, H. (2010). Towards a classroom pedagogy for learner autonomy: A framework of independent language learning skills. *Australian Journal of Teacher Education*, 35(5), 40-55.
43. Saunders, M., Lewis, P. & Thornhill, A. (2016). *Research methods for business students*, 7th ed. Harlow, Essex: Pearson Education Limited. <https://www.scribbr.com/methodology/exploratory-research/>
44. Savoji, A. P., Niusa, B., & Boreiri, L. (2013). Relationship between epistemological beliefs, self-regulated learning strategies and academic achievement. *Procedia-Social and Behavioral Sciences*, 84, 1160-1165.
45. Schwinger, M., & Stiensmeier-Pelster, J. (2012). Effects of motivational regulation on effort and achievement: A mediation model. *International Journal of Educational Research*, 56, 35–47. <https://doi.org/10.1016/j.ijer.2012.07.005>.
46. Sholeh, A., Setyosari, P., & Cahyono, B. Y. (2019). Effects of Scaffolded Voluntary Reading on EFL Students' Reading Comprehension. *International Journal of Instruction*, 12(4), 297-312.
47. Schunk, D. H., & Greene, J. A. (Eds.). (2018a). *Handbook of self-regulation of learning And performance* (2 ed.). London: Routledge.
48. Schunk, D. H., & Green, J. A. (2018b). Historical, contemporary, and future perspectives on self-regulated learning and performance. In D. H. Schunk & J. A. Green (Eds.), *Handbook of self-regulation of learning and performance* (2 ed., pp. 1–15). Routledge.
49. Sinclair, B., I. McGrath and T. Lamb (eds.) (2000). *Learner Autonomy, Teacher Autonomy: Future Directions*. London: Longman.
50. Smith, R. (2003). Pedagogy for autonomy as (becoming-) appropriate methodology. In D. Palfreyman & R. C. Smith (Eds.), *Learner autonomy across cultures: Language education perspectives*, 129-146. Palgrave Macmillan.
51. Ushioda, E. (1996). Learner autonomy 5: The role of motivation. Dublin: Authentik.
52. Winne, P. H. (2001). "Self-regulated learning viewed from models of information processing," in *Self-Regulated Learning and Academic Achievement*, eds B. J. Zimmerman and D. H. Schunk (New York, NY: Lawrence Erlbaum Associates), 153–190.
53. Winne, P. H. (2011). "A cognitive and metacognitive analysis of self-regulated learning," in *Handbook of Self-Regulation of Learning and Performance*, eds B. J. Zimmerman and D. H. Schunk (New York, NY: Routledge), 15–32.
54. Winne, P. H., and Hadwin, A. F. (1998). "Studying as self-regulated engagement in learning," in *Metacognition in Educational Theory and Practice*, eds D. Hacker, J. Dunlosky, and A. Graesser (Hillsdale, NJ: Erlbaum), 277–304.

55. Winne, P. H., and Perry, N. E. (2000). "Measuring self-regulated learning," in *Handbook of Self-Regulation*, eds M. Boekaerts, P. R. Pintrich, and M. Zeidner (Orlando, FL: Academic Press), 531–566.
56. Wirth, J., Stebner, F., Trypke, M. Et al. (2020). An Interactive Layers Model of Self-Regulated Learning and Cognitive Load. *Educ Psychol Rev* 32, 1127–1149. <https://doi.org/10.1007/s10648-020-09568-4>.
57. Zimmerman, B. J. (1989). A social cognitive view of self-regulated academic learning. *J. Educ. Psychol.* 81, 329–339. Doi: 10.1037/0022-0663.81. 3.329 Zimmerman,B.J.(2000).“Attaining self-regulation: a social cognitive perspective,” in *Handbook of Self-Regulation*, eds M.Boekaerts, P. R. Pintrich, and M.Zeidner (San Diego, CA: Academic Press), 13–40. Doi: 10.1016/b978-012109890-2/ 50031-7.
58. Zimmerman, B. J. (2008). Investigating self-regulation and motivation: Historical background, methodological developments, and future prospects. *American educational research journal*, 45(1), 166-183.
59. Zimmerman, B. J. (2015). Self-Regulated Learning: Theories, Measures, and Outcomes. In J. D. Wright (Ed.), *International Encyclopedia of the Social & Behavioral Sciences* (pp. 541-546). Oxford: Elsevier. <http://dx.doi.org/10.1016/B978-0-08-097086-8.26060-1>
60. Zimmerman, B. J., and Moylan, A. R. (2009). "Self-regulation: where metacognition and motivation intersect," in *Handbook of Metacognition in Education*, eds D. J. Hacker, J. Dunlosky, and A. C. Graesser (New York, NY: Routledge), 299–315.
61. Zimmerman, B. J., & Schunk, D. H. (2011). Self-regulated learning and performance: An introduction and an overview. *Handbook of self-regulation of learning and performance*, 15-26.