Implementation of Strategy Instruction in Teaching English as a Foreign Language: A Systematic Review

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Abstract. Strategy instruction (SI) has played an essential role in English as a foreign language (EFL). Its usage looks to provide potential benefits for improving learners' strategic competence for lifelong education. However, the current state of research on SI in EFL is fragmented and does not sufficiently elaborate upon the optimal conditions for effectively implementing SI. The present study aims to address this gap by synthesizing existing studies on SI in EFL and employing a systematic literature review using Petticrew and Roberts' (2008) framework. The related 25 articles were selected from databases of Educational Resources Information Centre (ERIC), Scopus, and Google Scholar from 2010 to 2022. The findings indicated that Strategy-based Learning (SBL) is one of the most effective approaches for implementing SI. The factors impacting the effectiveness are also revealed. Finally, this study recommends that future studies should integrate self-regulation into SI research and that the collaborative approach should be conducted by scholars and educators to enhance the efficiency of IS.

Keywords: strategy instruction (SI); language learning strategy (LLS); strategic competence; self-regulated learning (SRL); learner autonomy (LA)

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1. Introduction

Proficiency in English has become a crucial factor for success in various domains in the contemporary globalized world. As the most widely spoken language worldwide, English has emerged as the primary language for international business, politics, and academia (Phillipson, 2017). In numerous countries, English is included as a mandatory subject in school curricula, and a competent level of English proficiency is often a prerequisite for gaining admission to universities and securing employment opportunities. However, the acquisition of a new language can be an arduous and challenging task, particularly for adult learners such as college students who have already established their primary language skills.

To address the challenge of enhancing English as a Foreign Language (EFL), several scholars (e.g., Amiryousefi, 2019; Zhang et al., 2020) have sought to investigate influential factors such as learners' language proficiency, learning motivation, learner autonomy (LA), and foreign language anxiety. Among these approaches, the utilization of learning strategies (LS) has garnered significant attention (Habók et al., 2021). LS is commonly defined as the deliberate actions taken by learners to enhance the efficiency of their language learning process (Sardegna et al., 2018). Although there is variation in the taxonomies of LS, most researchers in this field distinguish among three categories of strategies in language learning: cognitive, metacognitive, and socio-affective. Cognitive strategies are concerned with behaviors and mental processes that facilitate learning (e.g., keyword, rehearsal, note-taking). Metacognitive strategies pertain to the awareness of the learning process itself (e.g., focusing attention, and planning for learning). Finally, socio-affective strategies are related to interactions with others and personality traits that affect language learning (e.g., seeking out conversation partners and managing anxiety).

Despite some existing debates surrounding the clarity of the definition and categorization of language learning strategies (LLS), scholars generally agree on the facilitative role that learning strategies play in foreign language acquisition (Lou & Noels, 2019). Empirical investigations on the impact of LLS on foreign language acquisition (FLA) have been abundant, with a multitude of studies demonstrating their positive influence on learners' strategy utilization, motivation, and language proficiency (e.g., Cheng et al., 2019; Zhang et al., 2019). Mazzetti et al. (2020) argued that the extent of achievement in language learning is correlated with the number and frequency of strategies employed by learners. They further suggested that the effectiveness of particular strategies in language learning is dependent on learners' goals, indicating that the efficacy of certain strategies may differ based on the intended outcome. Additionally, the authors advocated for learners to experiment, explore, and evaluate different strategies to identify the most effective ones, with metacognitive strategies being particularly advantageous for all learners and learning styles.

In the realm of foreign language education, a significant breakthrough occurred in the 1970s when scholars and practitioners redirected their focus from the teacher-centric teaching outcome to the learner-centric learning procedure

(Dwivedi et al., 2019). As a result of this paradigm shift, a multitude of claims have been made regarding the importance of strategy instruction (SI), which aims to empower students and meet their learning needs by increasing their self-awareness and expertise in effective strategy utilization. Empirical studies on foreign language strategy instruction have been identified as a promising avenue for both theoretical and practical advancements in the field (Thomas et al., 2021). SI refers to "any intervention which focuses on the strategies to be regularly adopted and used by language learners to develop their proficiency, to improve particular task performance, or both" (Hassan et al., 2005, p. 1). As a result of the growing interest in LLS, a significant number of researchers have developed models for SI. These models have been employed in experimental intervention studies, and they highlight the importance of cultivating students' metacognitive awareness of the value of learning strategies. Overall, there is a consensus among scholars that SI can have a positive impact on both learners and the language learning process (Lin et al., 2017). However, the current state of research on SI in EFL is still fragmented and does not provide a comprehensive explanation of the optimal conditions for effectively implementing SI. For example, it does not detail the factors that may impact the effectiveness of SI and the operative approaches necessary to employ SI in EFL learning. This systematic literature review aims to address this gap by synthesizing existing studies on SI in EFL and identifying trends and gaps in the research.

2. Literature Review

Strategic learning is a dynamic and iterative process aimed at efficiently solving learning problems and improving the learning process (Häkkinen et al., 2017). This process involves identifying difficult or novel tasks and analyzing task demands, one's own resources, the available instruments, strengths and weaknesses, and contextual factors that may affect task completion. The initial analysis constitutes a foundation for making strategic decisions and generating appropriate plans. These plans are subsequently monitored and adjusted when executed. Once the task is finished, strategic learners engage in reflection and assess the effectiveness of the strategies they employed during the process, which can be adjusted and transferred to similar tasks in the future. The acquisition of strategic learning in approaching unfamiliar tasks may initially involve intentional and gradual steps. However, through consistent practice, strategic learners develop an extensive range of strategies that can be readily applied to analogous tasks. Experienced strategic learners have the ability to consciously employ strategies, while the implementation, monitoring, and adjustment can take place automatically, even without the learner's conscious awareness (Bae & Kwon, 2021). Many examples of strategic processing can be found in various domains (Wolf & Floyd, 2017), such as for master sports players (Patton et al., 2020), chess players (De Jorge-Moreno, 2020), and successful language learners (Teng & Zhang, 2020).

The dynamic and iterative nature of strategic learning highlights the importance of metacognition and self-regulated learning (SRL). The ability to monitor one's own learning process and make necessary adjustments is crucial for successful strategic learning (Lapitan et al., 2021). The accumulation of a repertoire of

strategies requires not only the knowledge of different strategies but also the ability to select and adapt them to different tasks and contexts. The expertise of strategic learners is not only characterized by their ability to deploy effective strategies but also by their ability to reflect on their learning and adjust their strategies accordingly. Furthermore, strategic learning can be considered a subset of SRL (Valtonen et al., 2017), which involves a variety of cognitive, metacognitive, and motivational processes. The emphasis on SI in language learning reflects the recognition of the importance of learner autonomy (LA) and the need to shift the focus from the teacher to the learner. Effective SI should aim to develop learners' metacognitive understanding of the value of learning strategies and assist in the development of these for rapid and effective deployment in various tasks and contexts.

Strategic competence comprises declarative, procedural, and conditional knowledge of the strategies (Teng et al., 2021). Declarative knowledge encompasses learners' awareness and understanding of specific learning strategies and their functions. It includes knowledge of different categories of strategies, such as cognitive, metacognitive, and socio-affective strategies, and the ability to differentiate among them. Procedural knowledge, on the other hand, involves the actual implementation of strategies, including knowing how to initiate, execute, and monitor their use. This type of knowledge is developed through practice and feedback. Conditional knowledge refers to the ability to determine when and why to use specific strategies based on the task at hand, the learner's goals, and the learning context. This knowledge is more complex and situational as it requires learners to consider a variety of factors when selecting strategies, such as the difficulty of the task, the time available, the learner's prior knowledge and experience, and the learning resources and support available (Sun & Li, 2019). The effective utilization of learning strategies is not entirely reliant on the available declarative, procedural, and conditional knowledge. Although these modes of knowledge form the necessary foundation for strategic learning, effective utilization is also contingent on the learner's consistent motivation, volition, and beliefs (Teng & Zhang, 2018). The active involvement and decision-making abilities of the learner play a crucial role in determining the utilization of strategies. This learner agency enables the intentional exploration of novel strategies, the selection from existing ones, and the ability to coordinate and maintain strategic learning behavior. Moreover, strategic learning encompasses the metacognitive management of the entire learning process, rather than solely focusing on individual learning tasks.

The acquisition of strategic competence can be facilitated through SI, although individual differences (ID) may arise (Elleman & Oslund, 2019). A fundamental aspect of effective differentiated instruction is the teacher's awareness of each learner's strategic learning needs' strengths and weaknesses. Some learners may have a limited repertoire of learning strategies while others may claim to possess a diverse range of approaches but lack the ability to implement them effectively. Additionally, some learners may demonstrate proficiency in applying strategies to specific tasks but struggle to transfer these approaches to new contexts. Furthermore, learners may possess a range of learning strategies but may be

predisposed to utilizing certain strategies due to personal factors such as past experiences, cultural beliefs, or time constraints (Day-Vines et al., 2021). Moreover, there are instances where learners can competently use strategies to complete a task but are unable to apply these when managing their own long-term learning and development goals. These diverse scenarios add to the intricacy of differentiated instruction, necessitating individualized approaches that account for a thorough assessment of each learner or student group and their strategic learning requirements.

3. Methodology
3.1 Procedure
For this study, the researchers employed the methodology proposed by Petticrew and Roberts (2008) to conduct a systematic review, which is widely utilized in social science research. Systematic reviews are designed to minimize systematic errors or biases by comprehensively identifying, evaluating, and synthesizing all relevant research about a specific research problem or set of problems. Following the framework outlined by Petticrew and Roberts (2008), the present study consisted of seven stages: formulating research questions or hypotheses, identifying the types of studies to include, conducting a thorough literature search, screening the search results, appraising the studies that met the inclusion criteria, synthesizing the findings, and assessing the heterogeneity among the included studies. For the current study, the research questions were confirmed based on the systematic literature review of SI in the field of English as a Foreign Language (EFL) learning.

RQ1: What approaches have been employed in the EFL context for the implementation of SI?
RQ2: What factors would influence the effectiveness of SI in the EFL context?

3.2 Search Criteria
For the second stage, the related criteria were determined to clarify the types of studies for the further search process. The study exclusively considered research papers written in the English language and published in peer-reviewed journals from 2010 to 2022. An emphasis was placed on ensuring the quality, applicability, and ease of access to the selected studies. Subsequently, certain inclusive and exclusive criteria were defined in Table 1 as follows.

Table 1 Literature review selection criteria

Inclusion criteria	Exclusion criteria
Published in English and from 2010 to 2022	Published in other languages and outside of 2010 to 2022
Published in peer-reviewed journals	Book reviews, conference papers, dissertation
Studies exploring the implementation of SI in the EFL context	Studies outside of the EFL context
The full texts are available	Inadequate information on research design and data analysis

3.3 Search Process

The next stage involved determining the related databases and search terms to carry out the comprehensive search process. Several academic journal databases were utilized, including Educational Resources Information Centre (ERIC), Scopus, and Google Scholar, to ensure a complete set of results was collected. Pertaining to search terms, the key concepts related to the research aims were identified as strategy instruction, implementation approaches, and teaching English as a foreign language. To facilitate the search process, the study identified relevant search terms, including synonyms and alternative spellings, which had been used in previous studies. By considering various terms, the aim was to ensure comprehensive coverage and retrieval of relevant literature.

3.4 Screening Process

The screening process comprised stages 4 to 7, which were presented as follows. The search query resulted in 360 total related articles. From these, 96 were in ERIC, 89 in Scopus, and 175 in Google Scholar. During the fourth stage, a screening process was conducted using the inclusion and exclusion criteria outlined in Table 1. As a result, a total of 57 articles met the criteria and were selected for further analysis.

In the fifth stage, the researchers conducted an appraisal of the articles based on their titles, abstracts, keywords, and adherence to the inclusion criteria. As a result, a total of 45 articles were identified for further analysis. Subsequently, in the sixth stage, we synthesized the findings from these articles, and in the seventh stage, the researchers assessed the heterogeneity among them. Through this process, a total of 30 articles remained for further examination. To expand the search, the researchers employed the snowball method by scanning the reference lists of the 30 selected articles using the Google Scholar databases. This additional step resulted in the identification of three duplicate articles, which were subsequently removed. Ultimately, 25 articles were determined to provide support for self-regulated learning in the context of English as a Foreign Language (EFL) learning. The overall process of searching and screening was depicted in Figure 1.
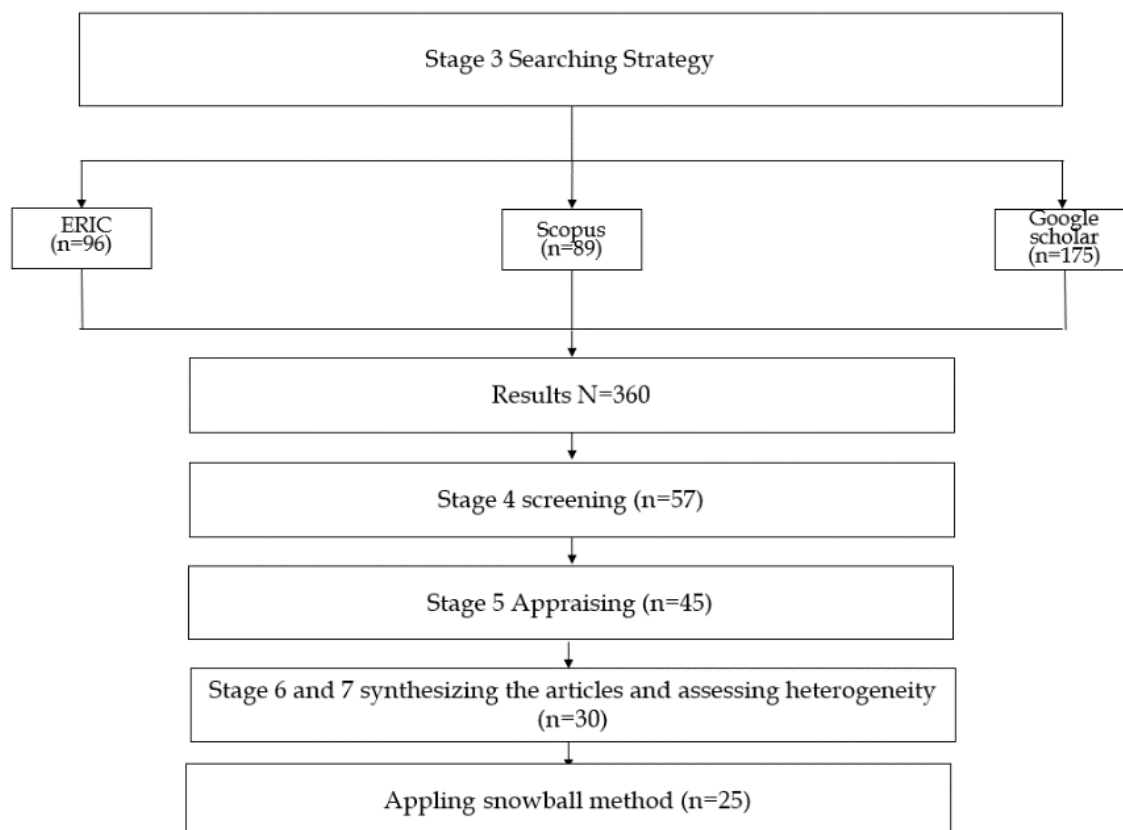
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│                     Stage 3 Searching Strategy                    │
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┌──────────┐              ┌──────────┐              ┌──────────┐
│  ERIC    │              │  Scopus  │              │ Google   │
│ (n=96)   │              │ (n=89)   │              │ scholar  │
│          │              │          │              │ (n=175)  │
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              │            Results N=360             │
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              │     Stage 4 screening (n=57)        │
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              │     Stage 5 Appraising (n=45)       │
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              │ Stage 6 and 7 synthesizing the articles and     │
              │      assessing heterogeneity (n=30)             │
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              │   Appling snowball method (n=25)    │
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Figure 1: Searching and screening procedures

4. Result and Discussions

In accordance with the research questions confirmed in stage one, the content of the 25 articles was analyzed. The result and discussions are presented in the following sections.

4.1 RQ1: What approaches have been employed in the EFL context for the implementation of SI?

SI for foreign language acquisition is a crucial aspect of language education that aims to equip learners with the necessary cognitive tools and techniques to become strategic learners. The goal of SI is to help learners develop the competence to use a wide range of effective learning strategies that may facilitate the acquisition and use of a foreign language.

Various approaches have been developed over the past four decades to practically and beneficially adapt language learning strategy research for language learners. One such approach is Strategy-Based Instruction (SBI), which involves integrating language learning strategy instruction (LLSI) into foreign language classrooms. The Cognitive Academic Language Learning Approach (CALLA) is an example of an SBI program that emphasizes the use of metacognitive strategies and provides a framework for teaching these strategies to language learners (Albashtawi, 2019). Other general approaches include 1) the use of stand-alone "learning to learn" courses, which are designed to teach students how to learn effectively and efficiently; 2) the use of learner guidebooks that provide learners with a set of strategies and techniques that they can employ to support their

language learning outside the classrooms. Some language textbooks also include built-in strategy training, providing students with opportunities to practice and develop their language learning skills; 3) Keys to Learning, which offers learners a systematic and comprehensive approach to developing effective learning strategies; 4) learner guidance websites and self-access materials, such as learning tips, which are widely available at many self-access centers around the world and provide learners with additional resources to support their language learning strategies.

From the above approaches, SBI has emerged as a promising approach in language teaching that focuses on cultivating learners' specific competencies to help them study a language more effectively. Specifically, explicit and integrated SI offers an additional advantage, since empirical evidence suggests that engaging in strategy practice within authentic language tasks could promote effective strategy transfer, foster learners' task awareness, improve comprehension and retention, and serve as a means of sustaining or enhancing learners' motivation (Chinpakdee & Gu, 2021; Machili et al., 2020). In the realm of foreign language education, the empirical evidence from the 25 included papers has confirmed the effectiveness of implementing explicit and integrated strategy training. Such studies have consistently demonstrated favorable outcomes, including heightened self-reported use of learning strategies (Martínez-Adrián et al., 2019), enhanced language proficiency (Namaziandost et al., 2019), increased metacognitive awareness (Maftoon & Alamdari, 2020), and improved motivation and autonomy among learners (Duke et al., 2021).

Since its conception, the Cognitive Academic Language Learning Approach (CALLA) model developed by Chamot and O'Malley (1987) has emerged as the prevalent approach for Language Learning Strategy Instruction (LLSI) in the foreign language education field. The CALLA model is primarily intended to enhance the academic performance of learners who are studying in a second language. It integrates content, language, and learning strategies, and the instructional approach typically follows a five-stage sequence that gradually transitions the responsibility for learning from the teacher to the students themselves, empowering them to become more autonomous. It should be noted that the CALLA model is not exclusively designed for second language acquisition, and LLSI is just one component of the overall instruction. Numerous published studies have examined the effectiveness of the CALLA model and have consistently reported positive outcomes, with some studies even reporting dramatic improvements in language learning outcomes as a result of implementing LLSI.

4.2 RQ2: What factors would influence the effectiveness of SI in the EFL context?

The use of SI has been found to boost language learners' motivation, increase their use of language learning strategies, and enhance their language learning outcomes. While SI has been shown to be efficient in the EFL field, the effectiveness of SI may be moderated by a multitude of factors concerning learners' individual traits, context and treatment based on the results of the target papers.

4.2.1. Learners' individual traits

In light of the literature, learners' characters, comprising learning stage, age, culture, and learning style, are assumed to moderate the effects of SI in foreign language acquisition (Iqbal et al., 2022). Specifically, learners may use different strategies at different stages in the learning process, and adults and children may choose different strategies based on cognitive ability and activity level. Cultural background can also influence strategy selection, as culture results in both opportunities and limitations on behavior. Additionally, learning style preference can vary greatly between individuals and impact strategy selection.

Furthermore, the literature results suggest that numerous other elements, involving personality, gender, autonomy, beliefs, affect, aptitude, motivation and volition, can influence the effectiveness of SI. These elements conduce to the learner's identity, which has become an essential domain of research orientation in recent years. Learners' sense of identity can impact their motivation (Perez et al., 2014), autonomy (Ushioda, 2011), willingness to invest time and effort in learning (Kahu, 2013), and affective reactions (Barcelos, 2015). As a result, teachers need to consider learners' identities seriously, as resistance may develop if this is not the case, which can be counterproductive to effective learning. Ultimately, learners' sense of identity plays a critical role in whether they could become successful in target language acquisition and impacts the strategies they choose to implement to achieve their goals.

4.2.2. Context

Scholars have long acknowledged that the effectiveness of an intervention can vary depending on contextual factors (e.g., Alibali et al., 2019; Fayyaz & Omar, 2014). In the case of SI interventions, these factors may include the setting in which the second language (L2) or foreign language (FL) is studied, the age of the learner, their educational level, proficiency, and the typology of the new language. This review has explored the potential influence of these variables on the effectiveness of SI interventions and relevant implications.

L2 and FL. Previous studies have confirmed the effectiveness of SI interventions in both FL and L2 (Chen, 2022; Plonsky, 2011). However, it can be challenging for studies to account for the differences between these settings. In the meta-analysis conducted by Plonsky (2011), it was found that the effectiveness of SI interventions was nearly two times larger in L2 contexts than in FL contexts. However, the more specific meta-analysis conducted by Taylor (2014) revealed an opposite result, with effect sizes favoring FL contexts. Ardasheva et al. (2017) contended that the differences among effect sizes are not statistically significant, which suggested that SI interventions may be equally effective in enhancing language achievements across L2 and FL settings.

Proficiency. Many studies have shown that learners who receive SI tend to perform better in terms of L2 proficiency compared to those who do not receive it. Moreover, the positive effect of SI on L2 proficiency seems to increase as learners' proficiency level increases. For example, Rao (2016) claimed that the employment of learning strategies is considerably influenced by the English proficiency level of the students, wherein students with a higher level of

proficiency tend to utilize a more diverse range of strategies and with greater frequency compared to those with a lower level of proficiency.

In addition, studies have found that the positive effect of SI on FL proficiency is cumulative, meaning that learners who receive strategy training over an extended period tend to show greater gains in language proficiency than those receiving training over a shorter period. For instance, Ardasheva et al. (2017) indicated that learners who received intervention over a period of 20 weeks showed greater gains in L2 proficiency than those who received strategy instruction over a period of 10 weeks. These findings suggest that intervention can be particularly effective in improving L2 proficiency among advanced proficiency learners and over an extended period.

Language typology. Language typology refers to the structural and typological characteristics of a language, such as its phonology, syntax, morphology, and lexicon. These features can vary across different languages and language families. One potential influence of language typology is the degree of similarity between a learner's first language (L1) and the target foreign language (L2). For example, shared structural and typological features between a learner's L1 and L2 may make the transfer of strategies easier from the L1 to L2 (Guo & Huang, 2020). Conversely, learners whose L1 is vastly different from the L2 may struggle to apply strategies learned in one language to the other. Another potential influence is the complexity and transparency of the L2's grammar and orthography (Goodwin, 2016). Languages with complex or opaque grammar and orthography may present greater challenges for strategy use and acquisition. For example, in languages with highly inflected grammar, learners may need to use different strategies to process and learn grammar rules compared to languages with simpler grammar structures. Overall, research on the relationship between language typology and SI is still under-researched, and more studies are needed to better understand these potential influences. Some studies suggest that SI may be effective across a range of language typologies and that learners may benefit from strategies that are tailored to the specific features and demands of their target language.

Educational level and age. Age and educational level are two variables directly related to SI in EFL research. The theory that learners of different education levels prefer strategies at different complexity levels is consistent with previous research in foreign language acquisition. For example, Pfenninger and Singleton (2017) found that primary students (elementary school level) preferred social strategies, such as asking classmates or teachers for help, while secondary and higher-level students preferred more advanced metacognitive strategies, such as setting goals, monitoring their own learning, and evaluating their progress.

The results also indicated that younger learners tend to benefit more from SI in terms of language outcomes (Stefánsson, 2013). Certain evidence indicated that older students might face a language disadvantage in self-regulated learning (SI) due to potentially lower language learning abilities compared to younger learners. As learners age, their cognitive abilities and working memory capacity may

decline, which can make it more difficult for them to process and retain new information. Additionally, older learners may have less exposure to the language they are learning and may have more difficulty acquiring new vocabulary and grammar structures.

4.4.3. Treatment

The present review identified several factors that can impact the effectiveness of SI, which include the type of strategies taught (such as metacognitive, cognitive, or socio-affective strategies), the scope of strategies taught (whether a single strategy is taught or multiple strategies are packaged together), the duration of the treatment (ranging from up to 2 weeks to up to a school year), the instructional approach used (such as awareness-raising or behavior-modeling) and SI scope and delivery mode. These features should be taken into account when designing and implementing SI programs, as they could impact the effectiveness of the instruction on language learning outcomes.

Concerning the number of strategies chosen by the learners, the researcher provides strong support for a "less-is-more" approach. Rather than overwhelming learners with a large number of strategies, researchers suggest that focusing on a smaller set of high-impact strategies can be more effective for improving language learning outcomes (Yeh, 2021). This approach allows learners to develop a deeper understanding and better master each strategy, leading to the effective use and application of strategies in their language learning tasks. Furthermore, focusing on a smaller set of strategies can help to simplify instruction and reduce cognitive overload for learners, which can enhance motivation and engagement in the learning process.

With regard to the instructional approach utilized, according to Ranalli (2013), the effects of SI utilizing the awareness-raising approach were found to be more pronounced compared to the behavior-modeling approach. The awareness-raising approach involves the explicit instruction and explanation of strategies to learners, while the behavior-modeling approach involves demonstrating the use of strategies through modeling and observation. The greater effectiveness of the awareness-raising approach may be due to the fact that it provides learners with a more explicit and structured understanding of how to use strategies, which can enhance their metacognitive awareness and control over the learning process.

The available evidence suggests that both short-term and longer-term interventions may be equally efficient for learners and that the decision regarding the optimal intervention length may be best determined by the instructors according to the specific needs and characteristics of the learners. While further longitudinal research with delayed post-tests is needed to better gauge the long-term impacts of SI, these findings provide some assurance and allay earlier concerns that SI may take valuable time away from direct language instruction. Instead, they lend support to current pedagogical recommendations that instruction should aim to balance language and (meta)cognitive skills development.

Two noteworthy findings regarding the delivery methods and agents of SI have emerged from the literature. Firstly, the statistically similar effect sizes (ESs) for technology-delivered and teacher-delivered SI indicate that the former is not inferior to the latter in terms of its effectiveness (Fogarty et al., 2017). This finding has important implications for pedagogical practice, as it suggests that technology-based SI can be a viable and effective alternative to conventional teacher-led instruction. Secondly, the finding indicated that researcher-led and teacher-led SI are equally effective in improving language outcomes (Lyster, 2019). This might provide some support for the ecological validity of SI research. This finding suggests that the effects of SI observed in research settings are generalizable to real-world classroom settings and that the instructional strategies and techniques used by researchers can be effectively implemented by classroom teachers.

5. Recommendations for Future Study

While we have made significant progress in understanding effective LLS, there is still much to do in terms of developing and implementing effective SI. It is critical to move beyond exploratory and descriptive research by developing and researching a range of practical and feasible approaches to implementing SI and bridging the theories to efficient practice. There are still some issues concerning SI in the field of EFL that should be taken into consideration.

5.1 The Evaluation Issue of SI

The results from the 25 articles indicate that intervention studies typically focus on assessing whether students' performance on a singular task has been enhanced following SI. Such tasks may involve the retention of word lists, comprehension of texts, or the logical organization of written work. Moreover, these studies have consistently found that the instruction provided leads to significant improvements in learners' performance in the specific task at hand.

It is imperative to acknowledge that the success of instructional interventions ought not to be confined solely to ameliorating performance on a singular task. As alluded to earlier, the fundamental objective of instruction is to cultivate learners' strategic competence and promote their autonomy. This necessitates instruction that surpasses the confines of isolated tasks and strives to empower learners with self-directed study and independence so that acquired knowledge and skills are easily transferable to novel tasks and contexts. It is paramount that SI extends beyond the scope of language learning tasks and the confines of foreign language classrooms. The overarching objectives of such instruction ought to encompass the development of enhanced learner efficacy, refined communicative proficiency, and the cultivation of responsible citizenship for the future. These aims require learners to possess self-regulated and self-directed behaviors, counterbalanced by a heightened awareness of their social responsibilities. Thus, the researcher of the current study highly recommends integrating the construct of 'self-regulation' into the current SI intervention to foster EFL learners' learning autonomy for lifelong learning.

5.2 The Linkage between SI Research and Pedagogical Practice

Despite the innovative nature of the specific aspect of LLS under investigation or the data collection methods employed, the primary criterion for evaluating the empirical evidence will be through the success of its application in practical foreign language instruction. Although certain components of SI have been incorporated into language learning coursebooks and the significance of strategic interventions has been acknowledged in national curricula, the emphasis on LLS remains relatively limited, with educational materials frequently neglecting to provide structured strategy-based instruction in a principled manner. Additionally, teachers may be hesitant to allocate time towards strategic instruction due to competing educational priorities. Despite widespread discourse regarding the integration of LLS in the classroom, specialists have not adequately illustrated the contributions of LLS to language proficiency, nor have they succeeded in effectively conveying research findings to educators in a comprehensible manner, which should be highlighted in future research.

To date, SI has largely been conducted using a fundamental research paradigm, with a focus on outcomes rather than the practicalities of implementing SI in diverse classroom contexts with learners at varying developmental stages. SI research has primarily been conducted by scholars and has infrequently been initiated by educators themselves. To maximize the potential effectiveness of SI, rather than relying solely on conventional one-way workshops for teachers, it is recommended that educators should be offered ongoing opportunities to establish their objectives, access resources, contextualize research-based knowledge within their own work contexts, monitor and reflect on outcomes, and receive tailored support. This approach emphasizes the importance of providing teachers with sustained and personalized support in order to promote the effective implementation of SI. For this purpose, it would be advantageous to design a viable research-to-practice pathway. To address this issue, the collaborative approach should be integrated when designing and implementing SI. During the process, the researcher serves as a facilitator and collaborator and works alongside the teacher and students in the planning, implementation, and assessment of SI. This approach involves multiple rounds of feedback, adjustment, and fine-tuning, with the ultimate goal of enhancing student learning outcomes. For example, the researcher may work with the teacher and students to identify appropriate learning strategies, develop lesson plans, and implement instructional activities. Throughout the process, the researcher may provide guidance and support, while also gathering data on the effectiveness of the instruction. Based on this feedback, the team may then adjust and fine-tune the instruction to better meet the personalized needs of the students.

6. Conclusion

Possessing a high level of strategic competence is deemed essential for academic success. Numerous scholars attempt to explore the approaches of SI implementation and factors influencing its effectiveness. In light of the literature review, research on the two issues in the EFL context is scarce.

Based on the analyses of the 25 related articles, Strategy-Based Instruction (SBI) is considered highly efficient in the EFL realm, particularly in explicit and integrated modes of training, which can yield positive outcomes. Such outcomes include an increase in the self-reported utilization of learning strategies, improvement in language proficiency, enhanced awareness of metacognitive processes, and a boost in motivation and autonomy among learners. Meanwhile, the systematic literature review also confirmed the factors that could influence the effect of SI, involving learners' individual traits, context and treatment. The exploration of the two issues in the current systematic review could shed light on the essence of the effective SI module and provide practical implications for policy-makers and practitioners. Subsequently, this literature review also provides some suggestions for future research. On the one hand, the success of instructional interventions ought not to be confined solely to ameliorating performance on a singular task. The integration of 'self-regulation' into the current SI intervention to foster EFL learners' learning autonomy for lifelong learning should also be highlighted. On the other hand, researchers and educators should work together by utilizing a collaborative approach to design and implement SI in the EFL context.

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