

## **Self-Organized Learning and its Relationship with Self-Efficacy among Saudi EFL Female Preparatory-Year Students**

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### **المخلص**

بحثت هذه الدراسة في العلاقة بين استراتيجيات التعلم المنظم ذاتياً (SOL) والكفاءة الذاتية لدى طالبات السنة التحضيرية السعوديات المتعلقات للغة الإنجليزية كلغة أجنبية (EFL). ولتحقيق هدف الدراسة، تم تطوير استبيان لاستكشاف استراتيجيات التعلم المنظم ذاتياً (SOL) (مقياس استراتيجيات التعلم المنظم ذاتياً)، وتبني المقياس الفرعي للفعالية الذاتية لاستبيان الاستراتيجيات المحفزة للتعلم (MSLQ; Pintrich & De Groot, 1990). تم جمع البيانات من الطالبات في السنة التحضيرية للغة الإنجليزية كلغة أجنبية من معهد اللغة الإنجليزية بجامعة الملك عبد العزيز (العدد = 285). كشفت النتائج عن استخدام كبير ومتنوع لاستراتيجيات التعلم المنظم ذاتياً (SOL)، وكان أكثرها انتشاراً التخطيط وتحديد الأهداف، تليها إدارة البيئة والوقت، والتسميع والحفظ. أما استراتيجية طلب المساعدة فقد ظهر أنها هي الأقل استخداماً. وكشفت النتائج أيضاً عن مستويات عالية من الكفاءة الذاتية لدى الطالبات ووجود علاقة ذات دلالة إحصائية بين استراتيجيات التعلم المنظم ذاتياً (SOL) والكفاءة الذاتية في التعلم والأداء. وبناء على هذه النتائج، تم تسليط الضوء على الآثار التربوية واسعة النطاق ومناقشتها.



### Abstract

This study investigated the relationship between self-organized learning (SOL) strategies and self-efficacy among Saudi EFL (English as a Foreign Language) female preparatory-year students. To achieve the study's objective, a questionnaire was developed to explore SOL strategies (the Self-Organized Learning Strategies Scale), and the self-efficacy sub-scale of the Motivated Strategies for Learning Questionnaire (MSLQ; Pintrich & De Groot, 1990) was adopted. Data were collected from Saudi EFL female preparatory-year students from the English Language Institute at King Abdulaziz University (N = 285). The results revealed significant and diverse usage of SOL strategies, with the most prevalent being planning and setting goals, followed by environment and time management, and recitation and memorization. The asking-for-help strategy was the least used. The results also revealed high levels of self-efficacy among students and a significant correlation between SOL strategies and self-efficacy for learning and performance. Based on these results, the extensive pedagogical implications are highlighted and discussed.

**Keywords:** *EFL learners, learning strategies, self-organized learning strategies, self-efficacy*

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## **Introduction**

Research on foreign language learning strategies began in the mid-1970s because of the shift from teacher-centered learning to student-centered learning (Dörnyei & Ryan, 2015; Su et al., 2018; Oxford, 2011). As Garcia-Jiménez (2015) points out, one of the main objectives of higher education is to encourage independent learning and equip students with effective strategies for learning to learn, which is especially important when learning foreign languages. This shift entailed the transfer and retention of information to active learning. Active learning requires more thinking, creativity, decision-making, and expression of opinions and ideas to match student-centered methods.

The self-organization of learning (SOL) is a relevant and valid construct in the educational field and is considered to be an integral part of student-centered practices. This is because it is one of the best predictors of academic performance (Hoyle and Dent, 2017, Vohs and Baumeister, 2016). Wang (2004) argues that students' efficient and effective use of SOL strategies depends on their self-efficacy beliefs. Self-efficacy helps with self-control and influences the level of effort and methods of thinking that organize self-learning processes (Bandura, 1997). Individuals with a high sense of self-efficacy tend to learn and achieve more than their counterparts who have low self-efficacy despite their academic ability levels. Therefore, students' organization of knowledge and self-learning is greatly affected by their self-efficacy beliefs.

This study provides insights into the EFL (English as a Foreign Language) context in Saudi Arabia, offering new knowledge on how students utilize SOL strategies in their English language learning. The study investigated the correlation between SOL and self-efficacy among preparatory-year female EFL students at the English Language Institute at King Abdulaziz University. It aimed to address the following research questions:

- RQ1. To what extent are SOL strategies used by EFL preparatory-year female students?
- RQ2. What is the level of self-efficacy for learning and performance among preparatory-year female students?

Is there a statistically significant correlation between SOL and self-efficacy for learning and performance among preparatory-year female students?

## **Literature Review**

SOL has received substantial attention in educational psychology. Thus, several definitions of the concept have emerged. Pintrich (2000) defines SOL as “an active, constructive process whereby learners set goals for their learning and then attempt to monitor, regulate, and control their cognition, motivation, and behavior, guided and constrained by their goals and the contextual features in the environment” (p. 453). Bandura (1991) characterizes SOL as the ability to control one's behavior through three principal processes: self-monitoring, self-judgment, and self-reaction. SOL refers to the effort made by learners to deepen and direct the preparation and process of learning to improve their learning by adjusting resources, setting goals and expectations of success, and promoting deep cognitive integration.

Research suggests that teaching students SOL strategies leads to an increase in their academic achievement across different learning environments (Dignath & Büttner, 2018;

Dignath & Veenman, 2021; Oxford, 2016) and improves problem-solving skills (Ahangari, 2020; Ifenthaler 2012; Mohammadi, Saeidi). The process of self-organization is not only a characteristic of effective learning but also a fundamental long-term learning process (Zimmerman & Schunk, 2012). Many studies have examined metacognitive awareness of learning strategies, which entails individual planning, setting learning goals, monitoring adopted cognitive processes and learning progress, evaluating learning outcomes, and organizing learning tasks (Alotaibi et al., 2017; Kallay, 2012; Zimmerman & Schunk, 2012).

### **Self-organized Learning in Social Cognitive Theory**

The conception of SOL in social cognitive theory stems from Bandura's (1991) theory of social learning, which focuses on how students activate, modify, and maintain their learning in specific contexts. In social cognitive theory, SOL is conceptualized as a phenomenon whereby individuals activate and sustain cognitive, motivational/affective, and behavioral processes to effectively achieve knowledge, abilities, and skills in a given context (Zimmerman, 2008). SOL highlights the importance of social influences on behavior and holds the view that people acquire knowledge, skills, strategies, and emotions by observing others (Zimmerman, 2000).

Within the social cognitive theory framework, the psychological process of SOL is considered to be a tripartite reciprocal relationship. SOL entails controlling the interactions between personal, behavioral, and environmental processes to achieve certain goals (Bandura, 2002). Personal factors such as learners' beliefs about their learning capabilities might influence as to where they sit in the classroom or how they interact with the course content (behavioral). In turn, behavioral processes might influence how a student's peers and the instructor engage with the student about course content (environmental). These processes interact reciprocally to influence student functioning and reveal any changes needed to students' cognitions, perceptions, strategies, emotions, and behaviors (Bandura, 2002).

### **Self-organized Strategies in Language Learning**

In different psycho-pedagogical theorizations, self-organization strategies have been identified as the key to learning success (Zimmerman and Moylan, 2009). Early studies focused on identifying mental procedures and the behavioral activities that characterize advanced learners (Griffiths, 2015; Oxford, 2011). For Troike (2006), the selection and use of learning strategies are essential for developing proficiency in a second language.

The strategies that learners use while learning a language vary, and there is a discrepancy in the rate of their use because of several learner and environmental factors (Oxford, 2011). What distinguishes self-organized learners is their awareness of the strategic relationship between SOL and the outcomes that result from the effective use of goal-setting strategies (Redaelli and Lima, 2013; Schneider-Cline, 2017). The frequent and effective use of strategies is positively related to high-level language proficiency (Kim et al., 2015). For instance, when faced with challenging assignments, it is crucial that learners take personal initiative in asking for help from teachers and peers. By actively seeking assistance, learners can avoid potential failures, maintain continuous engagement, achieve successful task

outcomes more frequently, and bolster their prospects for long-term mastery and independent learning endeavors (Newman, 2002). Wharton (2000) argues that learners may use learning strategies unconsciously, but their effective use only occurs with conscious and organized thought; therefore, it is important to identify these strategies and the rate they are used by learners. Several studies have concluded that strategies are a key factor in making the language learning process more effective and efficient (Javid et al., 2013; Oxford, 2011; Zimmerman, 2002).

Based on a review of previous studies, this research relied primarily on the SOL strategy frameworks of Pintrich and DeGroot (1990), Pintrich et al. (1993), and Zimmerman and Martínez-Pons (1988), which are drawn from social cognitive theory (Bandura, 1991). Several models/instruments have been developed based on these frameworks, including those by Zimmerman and Kitsantas (2007), Cleary and Zimmerman (2012), and DiBenedetto and Zimmerman (2010). Pintrich and DeGroot (1990) and Pintrich et al. (1993) were among the first to develop self-report instruments that have been widely used (e.g., Schellings & Van Hout-Wolters, 2011; Sebesta & Bray Speth, 2017; Roth, Ogrin, & Schmitz, 2016), and adopted, analyzed, or reclassified (e.g., Bartels et al., 2010; Gunning & Oxford, 2014 Zimmerman, 2002, 2008). The Motivated Strategies for Learning Questionnaire (MSLQ), developed by Pintrich and De Groot (1990) and Pintrich et al. (1993), was one of the first major contributions to the field of SOL. The instrument is completely modular, allowing for the use of the scales as a whole or individually, depending on need (Artino Jr., 2005; Pintrich et al., 1991). The MSLQ consists of 81 self-reported items and is divided into two broad sections with various subscales: motivation (six subscales) and learning strategy (nine subscales) (Table 1).

**Table 1**  
*Components of the Motivated Strategies for Learning Questionnaire (MSLQ)*

<b>MSLQ Section</b>	<b>Dimensions</b>	<b>Subscales</b>
<b>Motivation</b>	Expectancy component	Control belief Self-efficacy
	Value component	Intrinsic motivation Extrinsic motivation Task value
	Affective component	Test anxiety
<b>Learning strategies</b>	Cognitive and metacognitive strategies	Rehearsal Elaboration Organization Critical thinking Metacognitive self-regulation
	Resources management strategies	Time/study environment Effort regulation Peer learning Help seeking

Table 1 represents the organization of the questionnaire as defined by Pintrich et al. (1991, 1993).

The MSLQ organizes its learning strategy scales around cognitive, metacognitive, and resource management strategies. Cognitive strategies are used by students in learning, remembering, and understanding new material and linking it to what they have already learned (Gaffas, 2016; King and Watkins, 2011; Oxford, 2016). The main types of cognitive strategies include rehearsal, elaboration, and organizational strategies (Sadi and Uyar, 2013; Weinstein et al., 2011). Metacognitive strategies refer to the individual's regulation of cognitive processes to control, monitor, and regulate cognitive strategies and organization mechanisms. The efficient use of cognitive and metacognitive strategies is an important contributor to academic achievement and is an essential component of skilled performance that affects memory, learning, skills acquisition, and problem-solving. According to Dowson and McInerney (2004), there are three types of metacognitive strategies: planning, monitoring, and regulation. Resource management strategies refer to activities that manage and control learned material and the internal and external resources available to help an individual achieve their goals; they include study/time environment management, effort regulation, peer learning, and help-seeking strategies (Zimmerman & Schunk, 2004).

Similarly, Zimmerman and Martínez-Pons' (1988) categorization of SOL strategies holds that learners use 15 categories of strategies mapped onto three classifications: metacognitive (e.g., goal-setting and planning, organizing and transforming, seeking information, and rehearsing and memorizing), motivational (e.g., self-consequences), and behavioral (e.g., environmental structuring, keeping records and monitoring, reviewing records, and seeking social assistance from peers, teachers, and adults). Knowledge of effective learning strategies also includes knowing which ones are the most effective in different learning situations (Öz, 2014, 2015).

### **Self-efficacy for Self-Organization**

As evidenced by social cognitive theory, SOL is not an isolated process. In addition to environmental conditions, it is associated with personal judgments of capacity and the use of cognitive, metacognitive, and self-reinforcing strategies (Linenbrink & Pintrich, 2003; Schunk, 2003). It is worth highlighting that there is reciprocity between SOL and self-efficacy beliefs and their influence on academic performance. According to Bandura (1997), self-efficacy is “the belief in one's capabilities to organize and execute courses of action required to produce given attainments” (p. 3).

Self-efficacy reflects individuals' beliefs regarding learning and performing academic tasks. It encompasses learners' assessments of their capacity to achieve educational goals and handle the pressures of academic work (Raufelder & Ringeisen, 2016). This is supported by Artino (2012), who reports that self-efficacy contributes to improved performance on academic course tasks, and the academic performance of students with high self-efficacy surpasses that of their peers with low self-efficacy. In this regard, self-efficacy appears to be a key motivational determinant of how students organize their learning. Students with high self-efficacy can use cognitive and metacognitive strategies effectively in educational settings to monitor and evaluate their efforts, improve their time management skills, manage their personal resources, define their goals, and plan for and achieve those goals (Adesola & Li, 2018; Chang, 2012; Komarraju & Nadler, 2013).

It has been found that highly effective students show accuracy in their use of self-evaluation strategies with regard to their academic performance and are highly motivated to complete homework (Lennon, 2010; Zimmerman, 2000). Moreover, effective time management and a well-organized study environment have been linked to better academic outcomes (Mäenpää et al., 2020). Self-efficacy is also a strong predictor of language proficiency (Su & Duo, 2012; Wang et al., 2012) and there is a positive link between self-efficacy and SOL strategy use in EFL contexts (Chen, 2022; Cho & Kim, 2019; Kim et al., 2015; Yilmaz, 2010). Interventions to improve SOL strategy use boost students' self-efficacy in L2 learning (Chen, 2022), which supports previously existing evidence on the significance of SOL strategies for facilitating self-efficacy.

## **Methodology**

### **Participants**

The sample consisted of 285 preparatory-year Saudi female students from the English Language Institute (ELI) at King Abdulaziz University (KAU) in Jeddah, Saudi Arabia. Participants were 18 to 20 years old. A stratified random sample was used to ensure the representativeness of the sample and allow the findings to be generalized to the study community and other communities with similar characteristics.

### **Research Design and Measures**

This research adopted a comparative/correlational descriptive approach to answer the research questions, i.e., identify the nature of the relationship between SOL strategies and self-efficacy, and determine the use of SOL strategies and the level of self-efficacy among the sample. Two main instruments were used to collect the data: the Self-Organized Learning Strategies Scale and the Self-Efficacy for Learning and Performance Subscale (see Appendices A and B for the Arabic version of the scales). The items for both scales were expressed in the form of reporting statements. For both scales, responses were given on a 5-point Likert scale where 1 = Never applicable, 2 = A little, 3 = Sometimes, 4 = A lot, and 5 = Always applicable.

### **Self-Organized Learning Strategies Scale**

Based on a review of previous studies, an SOL strategy questionnaire - the Self-Organized Learning (SOL) Strategies Scale (henceforth SOL Strategies Scale) - was developed specifically for this study. This examines SOL strategies used by the study sample and measures students' ability to employ them in EFL classrooms. The questionnaire items were designed to consider general cognitive views through dimensions that center on controlling knowledge, learning, and the learning environment. There are seven strategy subscales: recitation and memorization, elaboration and organization, planning and setting goals, self-evaluation, and monitoring, asking for help, searching for information, and environment and time management (Table 1). According to Pintrich et al. (1991), scales are designed to answer research problems. Therefore, the seven subscales, comprising a total of thirty-six individual items, were devised to achieve the objectives of the research and facilitate students' understanding.

To verify the internal consistency of the SOL Strategies Scale, Pearson correlation coefficients between the individual item and subscale scores were calculated (Table 2).

**Table 2**

*SOL Strategies Scale: Correlation Coefficients between the Item and Subscale Scores*

Recitation and memorization		Elaboration and organization		Planning and setting goals		Self-evaluation and monitoring		Asking for help		Search for information		Environment and time management	
No.	coefficients	No.	coefficients	No.	coefficients	No.	coefficients	No.	coefficients	No.	coefficients	No.	coefficients
1	.300**	3	.509**	15	.383**	9	.550**	10	.494**	2	.765**	7	.430**
22	.648**	4	.412**	16	.536**	14	.635**	13	.614**	26	.772**	8	.416**
32	.521**	5	.650**	33	.562**	19	.461**	20	.579**	35	.823**	11	.460**
36	.543**	6	.504**	34	.615**	21	.406**	23	.706**			17	.523**
		12	.564**			30	.698**	25	.690**			18	.606**
		27	.684**			31	.600**					24	.579**
		28	.551**										
		29	.444**										

\*\* Correlation is significant at the 0.01 level (2-tailed).

As Table 2 shows, all the item–subscale correlations were statistically significant at the 0.01 level, which indicates acceptable internal consistency.

Pearson correlation coefficients between the subscale and the total scale score were also calculated (Table 3). The resulting correlations ranged from 0.647 to 0.938 and were all statistically significant at the 0.01 level. They were acceptable values, which indicates that the scale has internal coherence and an acceptable degree of consistency.

**Table 3**

*SOL Strategies Scale: Correlation Coefficients between the Total Scale Score and the Subscale Scores*

Subscale	2	3	4	4	6	7	Total score
Recitation and memorization	.832**	.722**	.802**	.685**	.696**	.743**	.876**
Elaboration and organization	1	.750**	.833**	.719**	.760**	.813**	.930**
Planning and setting goals		1	.814**	.592**	.647**	.797**	.846**
Self-evaluation and monitoring			1	.754**	.768**	.836**	.938**
Asking for help				1	.778**	.701**	.852**
Search for information					1	.689**	.852**
Environment and time management						1	.902**

\*\* Correlation is significant at the 0.01 level (2-tailed).

To assess the reliability of the scale, Cronbach’s alpha ( $\alpha$ ) coefficients were calculated for each of the subscales (Table 4). The Cronbach’s alphas for the subscales ranged from 0.729 to 0.875 and the total scale score was 0.891; these indicate that the scale has an acceptable degree of reliability for use with the target sample.



**Table 4***Cronbach's alpha Coefficients for the SOL Strategies Scale*

No	Subscale	Items	Cronbach's alpha coefficients
1	Recitation and memorization	4	0.797
2	Elaboration and organization	8	0.729
3	Planning and setting goals	4	0.875
4	Self-evaluation and monitoring	6	0.834
5	Asking for help	5	0.841
6	Search for information	3	0.799
7	Environment and time management	6	0.811
<b>Total scale score</b>		36	0.891

**Self-efficacy for Learning and Performance Subscale of the MSLQ**

To measure self-efficacy, the eight-item self-efficacy for learning and performance subscale of the Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich & De Groot, 1990) was used. The Cronbach's alphas for the individual subscales are relatively strong, according to Pintrich et al. (1991), i.e., greater than .70, with the self-efficacy for learning and performance subscale standing as the highest at .93.

In this sample, the validity of the subscale was verified in two ways. The first verification occurred before administration and concerned content validity (reviewers' validity), and the second verification was performed after administration and dealt with construct validity (internal consistency validity). The scale was then modified accordingly.

The internal consistency validity was checked by calculating the correlation coefficients (Pearson) between the individual item scores and the subscale score (Table 5). The resulting correlations ranged from .807 to .906 and were all significant at the 0.01 level, which supports the internal consistency of the subscale items.

**Table 5***Self-efficacy for Learning and Performance Subscale of the MSLQ: Correlation Coefficients between the Item Scores and Subscale Score*

No.	Coefficients	No.	Coefficients.	No.	Coefficients	No.	Coefficients
1	.827**	3	.895**	5	.876**	7	.906**
2	.807**	4	.881**	6	.877**	8	.827**

\*\* Correlation is significant at the 0.01 level (2-tailed).

The Cronbach's alpha coefficient for the subscale was calculated as 0.95, which indicates that it has high reliability (Table 6).

**Table 6***Self-efficacy for Learning and Performance Subscale of the MSLQ: Cronbach's alpha for the Subscale*

MSLQ	No. of Items	Cronbach's alpha coefficient
Self-efficacy for learning and performance subscale	8	0.950

## Procedure

A pilot study was conducted within the study context to verify the clarity and reliability of the scales and identify any possible issues with the administration process. The pilot sample was randomly selected and comprised 45 students. After the validity and reliability of the scales were verified using the pilot sample, they were used for the main study, which included 285 students. The questionnaire containing the two scales was distributed and completed online via Google Forms. The participants were asked to fill out the questionnaire anonymously. A consent form was provided to inform participants of the objectives of the study and ensure that participation was voluntary. The participants' responses were treated with complete confidentiality and used for scientific research purposes only. To answer the research questions, statistical analyses were performed using the Statistical Package for Social Sciences (SPSS). In drafting the items, the clarity of the instructions was taken into account as well as the scales' efficiency in terms of the number and comprehensiveness of the items. Furthermore, to clarify the course subject, the term "English-language course" was added to some items in both scales.

## Results and Discussion

To investigate the use of SOL strategies among the sample, the means, standard deviations (SDs), and relative weight of students' scores on the SOL Strategies Scale were calculated (Table 7).

**Table 7**

*Descriptive Analysis of Students' Scores on the SOL Strategies Scale*

<b>Subscale</b>	<b>Mean</b>	<b>SD</b>	<b>Relative weight</b>	<b>Rank</b>	<b>Level</b>
Recitation and memorization	23.4	4.9	83.6%	3	High
Elaboration and organization	46.3	9.8	82.7%	4	High
Planning and setting goals	23.8	5.0	85.1%	1	High
Self-evaluation and monitoring	34.2	7.8	81.3%	5	High
Asking for help	26.5	8.1	75.8%	7	High
Search for information	15.9	4.7	75.8%	6	High
Environment and time management	35.2	7.1	83.9%	2	High
<b>Total scale score</b>	205.4	42.4	81.5%	--	High

The mean total scale score was 205.4 with a standard deviation of 42.4 and a relative weight of 81.5%, which indicates that the use of SOL strategies among students was high. The top three mean subscale scores were: (1) planning and setting goals (mean = 23.8, SD = 5.0, relative weight = 85.1%), (2) environment and time management (mean = 35.2, SD = 7.1, relative weight = 83.9%), (3) recitation and memorization (mean = 23.4, SD = 4.9, relative weight = 83.6%). The asking for help strategy was the least used (mean = 26.5, SD = 8.1, relative weight = 75.8%).

The results indicate that students were actively involved in planning their learning and setting specific goals for their academic tasks. This category involves students setting clear objectives and creating a roadmap for their learning process. Preparatory-year students may prioritize planning and goal-setting as SOL strategies because they help them structure their

learning process and track their progress. The results support those of Alotaibi et al. (2017), who found that planning and goal-setting strategies are the most important predictors of academic achievement in English language learning and also reported that other SOL strategies play a supportive role in directing the process of planning and goal-setting.

The second most used SOL category was environment and time management. These strategies emphasize creating a conducive learning environment and effectively managing time to maximize productivity. Preparatory-year students may prioritize environment and time management strategies to minimize distractions and maximize their productivity. By managing their study environment and allocating time efficiently, they can enhance their concentration, and improve overall learning outcomes. The results additionally indicated that students were attentive to creating an optimal learning environment and managing their time efficiently to enhance their learning outcomes. This observation aligns with the study conducted by Mäenpää et al. (2020), which emphasized the importance of proficient environment and time management in successful SOL, particularly within a blended learning context. Notably, Mäenpää and colleagues' study focused on a sample of undergraduate nursing students enrolled in blended learning programs, further highlighting the applicability of their findings to similar educational settings.

Recitation and memorization strategies are extensively used methods in language learning. However, a ranking of third in this study could reflect a shift toward learner-centric methods in EFL teaching. Moreover, students may employ these strategies to consolidate their knowledge, improve their learning retention, and reinforce their learning. These results are in line with the findings of Gaffas (2016), who reported that, due to excessive testing within a very limited time, which may coincide with tests for other courses, students resort to memorization instead of developing a better understanding of English learning material.

The least used strategy was asking for help. This indicates that students were less inclined to seek assistance when they faced challenges in their learning process. Not asking for help might be attributed to cultural issues or learning environments that discourage seeking help. The results provide insights into the significant influence of SOL strategies and their correlation with self-efficacy among EFL learners, indirectly contributing to a deeper understanding of potential factors that may influence help-seeking behaviors and reluctance to seek assistance during the language learning process.

Participants noticeably reported using SOL strategies frequently, as evidenced by the high mean scores and relative weights assigned to the various subscales. However, it is crucial to acknowledge that the use of SOL strategies alone does not provide direct evidence of language learning success. The relationship between SOL and language learning outcomes is complex and multifaceted. While the results indicated a high level of SOL strategy use, the effectiveness or proficiency of language learning was not directly measured. To address this limitation, the interpretation of the results focused on the participants' reported use of SOL strategies, highlighting their potential implications for language learning. The results align with existing literature that suggests that SOL plays a vital role in language learning, including EFL education. For instance, research by Zimmerman (2002) and Oxford (2011) has affirmed the significance of SOL for enhancing language learning outcomes.

**RQ2: What is the level of self-efficacy for learning and performance among preparatory-year female students from the English Language Institute at King Abdulaziz University?**

The mean, standard deviation, and relative weight of students' scores on the self-efficacy for learning and performance subscale are presented in Table 8. The results indicate a high level of self-efficacy among the sample (mean = 46.5, SD = 10.6, relative weight = 83.0%).

**Table 8**

*Self-efficacy for Learning and Performance Subscale: Descriptive Results*

Scale	Mean	SD	Relative weight	Level
Self-efficacy for learning and performance scale	46.5	10.6	83.0%	High

As self-efficacy increases, students' confidence in their learning abilities also improves. The results underscore the importance of nurturing self-efficacy beliefs among EFL students to enhance their perceived language learning outcomes, especially as self-efficacy has been found to interact with motivation, influencing students' drive and commitment to their studies (Wang et al., 2012, Sadi & Uyar, 2013). Our findings suggest that students hold strong self-efficacy beliefs in their language learning abilities. This aligns with the outcomes of Kim et al. (2015), who concluded that students who possess strong self-efficacy beliefs in their language learning abilities demonstrate better language proficiency and overall academic performance. Our study emphasizes the significance of self-efficacy in predicting students' self-perceived language learning outcomes and their confidence in overall academic abilities.

**RQ3: Is there a statistically significant correlation between SOL and self-efficacy for learning and performance among preparatory-year female students from the English Language Institute at King Abdulaziz University?**

To answer this question, correlation coefficients were calculated between the SOL Strategy Scale subscale scores and the self-efficacy for learning and performance subscale score (Table 9). There was a significant correlation between the total SOL Strategy Scale score and self-efficacy for learning and performance (.658, significant at the 0.01 level). All the SOL strategies were also significantly associated with self-efficacy for learning and performance; the correlations ranged from .501 to .658 and were statistically significant at the 0.01 level.

**Table 9**

*Pearson Correlation Coefficients between the SOL Strategies (subscale scores) and Self-efficacy for Learning and Performance (Subscale Score)*

<b>SOL Strategies</b>	<b>Correlation with the self-efficacy for learning and performance subscale</b>	
Recitation and memorization	.528**	Significant
Elaboration and organization	.608**	Significant
Planning and setting goals	.658**	Significant
Self-evaluation and monitoring	.652**	Significant
Asking for help	.501**	Significant
Search for information	.564**	Significant
Environment and time management	.591**	Significant
<b>Total scale score</b>	<b>.658**</b>	<b>Significant</b>

\*\* Correlation is significant at the 0.01 level (2-tailed).

Among the SOL strategies, planning and setting goals was the most strongly correlated (positively) with self-efficacy for learning and performance (.658). This indicates that students who effectively plan their learning activities and set clear goals are more likely to have higher levels of self-efficacy, which aligns with results from Chang (2012) and Adesola and Li (2018).

The self-evaluation and monitoring strategies also showed a strong positive correlation with self-efficacy, with a correlation coefficient of .652. This indicates that students who actively monitor their progress and evaluate their learning strategies are more likely to have greater confidence in their abilities. A strong positive correlation between self-evaluation and monitoring strategies and self-efficacy has been observed in past research. For instance, Komarraju and Nadler (2013) report that students with high self-efficacy are more likely to succeed academically because they monitor their progress, self-regulate their efforts, and persevere despite difficulties.

Conversely, the asking for help strategy had the lowest correlation with self-efficacy, with a correlation coefficient of .501. This could be due to cultural factors or it might reflect the fact that students with high self-efficacy feel more confident in their abilities and therefore need to seek less help. However, as Newman (2002) claims, asking for help is an essential SOL strategy that learners must master.

The positive relationship between SOL and self-efficacy indicates that students who actively manage their learning processes and employ effective strategies are more likely to develop stronger confidence in their ability to succeed academically. These findings reinforce the importance of promoting SOL practices to foster self-efficacy among EFL students. Having a strong knowledge base about how to organize one's academic learning processes contributes to increasing self-efficacy. The results of this research are consistent with Yilmaz (2010), which revealed that students with higher self-efficacy used different learning strategies, including memory, cognitive, and metacognitive strategies, and as a result, achieved better language outcomes. This signifies that fostering both self-efficacy and SOL can enhance language achievement among EFL learners. In conclusion, both SOL and self-efficacy play crucial roles in language learning. They mutually enhance each other and contribute to better

language outcomes. This underscores the importance of pedagogical strategies and curricula that foster SOL and enhance students' self-efficacy in EFL teaching and learning.

### **Limitations of the Study**

The results of this study bear the inherent limitations of research that uses self-reporting instruments to obtain data. Possible limitations include social desirability bias, disparate interpretation of the content of the items by the informants, and the fact that some strategies are used unconsciously. This study addresses a gap in the research on SOL strategies in a specific cultural and socio-educational context and contributes to increasing the general body of research on language learning strategies. The findings of this study do not reflect the views of students at other universities in Saudi Arabia; therefore, the generalizability of the findings may be limited to students at the ELI at King Abdulaziz University.

### **Conclusion and Pedagogical Implications**

The study provides insight into the use of SOL strategies and their relationship with self-efficacy for learning and performance among female preparatory-year students from the English Language Institute at King Abdulaziz University. The findings reveal high usage of SOL strategies among students. The different strategies had varied usage among students, with planning and setting goals being the most prevalent strategy, followed by environment and time management, and recitation and memorization. The asking for help strategy was the least used. There were also high levels of self-efficacy among the students, indicating that the English Language Institute has a positive learning environment that fosters confidence in students' learning capabilities and that its teaching practices are potentially beneficial. This is a promising result; as high self-efficacy has been associated with improved language learning outcomes. Finally, the results showed a significant correlation between SOL strategies and self-efficacy for learning and performance. This relationship was most significant with regard to planning and goal setting strategies, which emphasizes the important role that such SOL strategies play in enhancing students' beliefs in their capabilities.

These findings have pedagogical implications in that, to support students' academic success, educators should focus on fostering strategies that enhance students' self-organization skills and boost their confidence in their learning capabilities. SOL strategies can be explicitly taught in the EFL context, and learning is more effective if it is linked to specific content (e.g., grammar or phonetics) rather than abstract concepts. In some areas, such as reading and writing, it may be relevant and desirable to teach different general SOL comprehension strategies. Teachers can include SOL objectives for teaching metacognitive knowledge in regular teaching units alongside subject-specific content and teach and assess these in a way that allows students to use the strategies. For example, during lessons, teachers can identify opportunities to discuss metacognitive knowledge, such as in reading groups, where SOL strategies can be used to analyze a section of a story. This explicit approach will help students to connect their learning with other previously acquired concepts and strategies. Incorporating a discussion of SOL strategies into English course discourse can help foster a common language that will support students to talk about their own cognition and learning. In conclusion, these pedagogical implications can leverage the identified links between SOL strategies and self-efficacy to enhance the EFL teaching and learning process.

It is strongly recommended that educational institutions prioritize the promotion of SOL strategies by enhancing and diversifying teaching methods for both general education (school-age) and university students. This includes developing academic curricula that align with the varying levels of SOL strategy use among EFL students. There should be a strong emphasis on introducing the concept of SOL into the early stages of education to maximize its benefits throughout the learning journey. Further research should explore SOL and other potential factors that might influence EFL in the Saudi context, such as economic status, learning styles, motivation toward learning English, and student and teacher personality traits and their relationship to university students' SOL strategies, to provide a more comprehensive understanding of ways to support students in their educational journey. This will provide a deeper understanding that will lead to a more meaningful application of SOL in the educational field.

## Bio

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