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RESEARCH ARTICLE

Strategies Use and Self-efficacy perceptions: Libyan EFL University Students

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ABSTRACT

Language learning strategies (LLSs) and the elements that affect their usage, like Self-efficacy (SE) and gender variations during the learning process, both of which have been significant areas of focus in the teaching of English as a foreign language (EFL) to students of other languages, as they play a pivotal role in the learning process. in the Libyan context research on this topic is relatively scarce. As a result, this study was conducted to determine if there is a link between LLS and SE; in order to accomplish this goal, this research surveyed 60 students who enrolled at the University of Tripoli (33 males and 27 females). Both SILL and the QESE were used in the process of data collection. To analyze the data, the software of (SPSS) was used to examine the data gathered. It was concluded that students' utilization of LLSs was at a moderate level, with a noticeable gender difference; although students reported high levels of self-efficacy, a weak positive association across LLSs and SE was reported. The conclusion of the research shall be valuable to both researchers and teachers, as the study will provide ways to better understand students' current views and strategy utilization.

KEYWORDS

Language learning strategies, self-efficacy, gender, correlation

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1. Introduction

Recent consideration has been drawn to language learning strategies and the elements that impact their employment. Researchers today view learning as an active process and the teacher's responsibility to assist students with that process. According to Haka et al. (2015), LLSs have redirected the priority from instructional methods in teaching to the importance of students' growth and development in learning. Moreover, researchers carried out several investigations of the variables influencing students' performance (Osman, 2013).

There is a significant variability as to how students learn based on their gender, their learning experience, and their attitudes (Li, 2010). Learner SE and LLSs, among other factors, were extensively studied in language learning (Bonyads et al., 2012). Scholars claim that these variables cause differences in language learning among L2 learners (Dorney, 2009). Several investigations have been carried out to investigate the association between these variables (e.g., Bonyadi et al., 2012; Montaño-González, & Cancino, 2020; Wong, 2005; Yilmaz, 2010).

According to Zimmerman et al. (2006), a learner's variety of tools and techniques tends to increase their feeling of self-efficacy. With this in perspective, researching strategy utilization and its relation to self-efficacy could contribute substantially to learners' academic achievement. Language learning strategies are seen as instruments promoting self-directed engagement, and using these strategies is vital in aiding the learning process (Oxford, 1990). However, due to the insufficient data in the Libyan context, examining the connection between SE and language LLSs in Libya is essential. Consequently, the current research adds to this developing field of investigation by providing insights into Libyan university students' learning strategies and how they interact with self-efficacy across gender.

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2. Literature Review

2.1 Language Learning Strategies

Several scholars have described strategies for language learners, but they have not reached a consensus on an approved description of LLSs (Tran, 2021). According to Oxford (1990), LLSs are approaches or tools that students adopt to accelerate the progress in building learning abilities. Similarly, Nunan (1999) described LLSs as cognitive and behavioral techniques that students use to acquire and utilize the language they learn. Brown (2007) described strategies as distinctive tactics for a difficulty or assignment, ways of functioning for reaching a specified outcome, and deliberate structures for directing and altering precise details. Correspondingly, learning strategies, as described by Richards and Platt (1992), are deliberate actions and ideas that students use when learning to gain a clearer understanding and acquire or recall new material.

Researchers made several attempts to classify LLSs, which ultimately resulted in conflicts in classification, as they are in the definition of the LLSs. Rubin (1987), an expert on LLSs, has suggested using these strategies for enhancing language acquisition: social, communication, and learning strategies. While in comparison, Oxford (1990) made major contributions to identifying the various strategies. She sorted LLSs into the following types: memory, cognitive, compensation, metacognitive, affective, and social.

Most researchers have primarily relied on Oxford's (1994) questionnaire SILL, which is the foremost acknowledged tool in this area (Tran, 2021). Several studies have adopted the SILL (Alhaisoni, 2012; Duong & Nguyen, 2021; Lem, 2019). Therefore, the present study has selected the classification system of Oxford (1990).

On the other hand, regarding the importance of gender in strategy implementation, the research conducted by Rebecca Oxford has given tremendous weight to the link between gender and strategy use. (Tran, 2021). For instance, (Ho & Ng, 2016; Oxford & Nyikos, 1989; Rianto, 2020), according to the findings of these studies, a considerable variation in overall LLS uses in terms of gender, having women using more LLSs than men. Therefore, gender variances in the application of strategies can be used to create strategy instruction and provide strategy training to help learners become more effective.

2.2 Self-Efficacy

Bandura (2006) described SE as a person's sense of their capacities lies at the heart of self-efficacy. Several distinctive characteristics describe self-efficacy: (a) perceived capacities; (b) the settings; (c) competence in productivity; and (d) practice of thought (Zimmerman et al., 2006, as cited in Wang et al., 2014). Self-efficacy enables students to be mentally, socially, and emotionally engaged in active learning. This suggests that perceived SE is essential in student involvement in the classroom, resulting in higher motivation (Linnenbrink & Pintrich, 2003). Additionally, high self-efficacy contributes relatively to being vital in sustained motivation in challenging situations and setbacks (Bandura, 1995). Thus, according to Oxford (2017), dilemmas such as poor motivation and negative self-efficacy beliefs may impede strategies' utilization and adoption. Thus, in the context of language learning, self-efficacy has been the focus of attention in several research (Ahamad & Abdullah, 2019; Kitikanan & Sasimonton, 2017; Rahemi, 2007; Wong, 2005).

2.3 The Relationship Between SE and LLSs

Several studies have been conducted to determine how SE affects language learning and its relation to language learning strategies (Wang et al., 2014). Most of these investigations demonstrated a link between LLSs and SE (Magogwe & Oliver, 2007; Montaño-González & Cancino, 2020; Tang & Tian, 2015; Wong, 2005; Yilmaz, 2010). For example, in terms of their associations, Montaño-González and Cancino (2020) investigated LLSs and SE. They conducted questionnaires and interviews; Their findings revealed a substantial connection between LLSs and SE among the students. All the students used LLSs; they exhibited a medium degree of SE and LLSs overall. Therefore, LLS usage is more common among students with a greater level of SE degree; this shows a relation between LLSs and SE (Magogwe & Oliver, 2007; Wong, 2005). On the contrary, Bonyadi et al. (2012) found no association between these two factors.

2.4 Purpose of the Present Study

A literature review indicated limitations in research on EFL students' LLSs and SE used among Libyan university students across gender. As a result, the current research investigated the correlation between LLSs and SE within the context of Libyan university students due to gender. This current research is designed to discuss these questions:

- Which LLS is used the most and least by EFL Libyan students?
- Is there a variation in gender in the employment of LLSs?
- What is the self-efficacy beliefs level of the learners?
- What is the relation between LLSs use and SE?

3. Method

In the current research, correlation methods were utilized to investigate the link between LLSs and SE among Libyan students. Gender variations in strategy employment were also examined within the scope of this study.

3.1 Participants

Participants in this research project were from the University of Tripoli, department of English language. Most students in this research had spent at least nine years learning English in school; they were Arabic native speakers. There were 60 students from various levels (33 females and 27 males). Their ages ranged from 20 to 23, and they were chosen using convenience sampling. After receiving ethics approval from the head of the English language department, students were asked to complete two questionnaires.

3.2 Instruments

Two instruments were used to gather data from students. The first instrument is known as (the questionnaire of strategy inventory for language learning). This researcher utilized SILL, the 7.0 version. Oxford (1990) invented this questionnaire, which is now widely used and accepted (Wong, 2005). The survey questions are classified into six strategies: memory, cognitive, compensation, metacognitive, affective, and social. They are, in total, 50 questions that cover the categories of direct and indirect LLSs. The questionnaire of SILL employs a Likert scale that enables students to respond to the questions; the scale ranges from 1 (Never) to 5 (Always).

The second instrument is the QESE which is known as (the questionnaire of English self-efficacy); it contains 32 questions. Wang et al. (2014) created the QESE to measure students' SE in four areas: listening SE, speaking SE, reading SE, and writing SE. These 32 questions are evaluated on a scale called (Likert). The numbers on the scale range from 1 to 7; they are translated from (1-1 cannot do it) to (7-1 can do it very well).

3.3 Procedure

After the ethical approval from the Head of the English Language Department, students were assured by a member of the teaching assistants that their participation in the study would not affect how well they performed academically; students were also ensured confidentiality. Then students were invited to complete the two questionnaires; the questionnaires were divided into three sections: background information, then (SILL), and finally (QESE). The participants were instructed to fill out personal information, name, gender, and age, and were reassured that their privacy was strictly protected. After that, they responded to the questionnaires, which took them no more than thirty minutes for each questionnaire to complete.

To analyze and collect quantitative data for this research, data from the questionnaires were coded and placed into a database using the (SPSS) software. Specifically, data were processed to determine which LLS students employed the most and least, as well as their degree of self-efficacy. To determine the gender variation in overall LLSs, the T-test has been employed to measure gender variation. Moreover, Pearson's test was utilized to understand if LLSs and SE are related.

4. Results and discussion

Regarding the first research question, LLSs were calculated statistically to determine the most and least LLSs used by Libyan students. It is also worth noting that the mean scores were ranked. In this research, a strategy usage measure developed by Oxford and Burry-Stock (1995) was used to measure the degree of LLSs; they proposed mean scores to interpret SILL questions. Scores that represent high usage are from 4.5 to 5.0 (always used) or 3.5 to 4.4 (usually used), scores that represent average use are from 2.5 to 3.4 (sometimes used) scores that represent low usage are from 1.5 to 2.4 (rarely used) or 1.0 to 1.4 (never used).

Table 1 shows that social strategies were the most employed with highly frequent usage (M = 3.57, SD = 1.33). This was then accompanied with metacognitive (M = 3.50, SD = 1.50), cognitive (M = 3.49, SD = 1.16), compensation (M = 3.31, SD = 1.26), and memory (M = 2.97, SD = 1.18). Finally, the least used are affective strategies with moderate usage (M = 2.90, SD = 1.45), with overall moderate strategy use (M = 3.29, SD = 1.31).

Strategy	М	SD	Rank
Memory	2.97	1.18	5
Cognitive	3.49	1.16	3
Compensation	3.31	1.26	4
Metacognitive	3.50	1.50	2
Affective	2.90	1.45	6
Social	3.57	1.33	1
Overall	3.29	1.33	

Table 1. The Most and Least LLSs Used by Libyan Students

In response to the question regarding the variation of gender in LLSs, a T-test was performed using an alpha level of .05. Table 2 shows a noteworthy variation in LLSs used for males (M = 3.16, SD = 1.21) and females (M = 3.54, SD = 1.23), t(113) = -2.42, p = .02

	Male		Female		<i>t</i> (113)	Р	Cohen's d	
_	М	SD	М	SD				
LLSs	3.16	1.21	3.54	1.23	-2.42	.02	0.31	

Table 2. Difference between Males and Females using LLSs Note. Males (n = 27) and Females (n = 33)

Regarding SE beliefs level, the average of all scores on the QESE questionnaire that fell between 5.1 and 7.0 was reviewed to show a high degree of SE. In contrast, the scores that fell between 3.1 and 5.0 indicated a medium degree, and those that fell between 1.0 and 3.0 indicated a low degree. Table 3 shows the overall mean of SE (M = 5.35, SD = 1.59), which is read as a high degree of SE. In terms of the four skills specified by QESE, listening (M = 5.40, SD = 1.70), reading (M = 5.39, SD = 1.51), speaking (M = 5.38, SD = 1.58) were reported as the highest performed skills with close means. For writing, it reported the lowest mean score (M = 5.26, SD = 1.59).

Skill	М	SD
Listening	5.40	1.70
Speaking	5.38	1.58
Reading	5.39	1.51
Writing	5.26	1.59
Overall	5.35	1.59

Table 3. Descriptive statistics for self-efficacy beliefs

A Pearson correlational analysis was performed to determine the relationship between the LLSs, and SE. Table 4 shows a weak positive connection between the LLS and SE but not significant. r(58) = .19, p > .05

	1	2
1. LLSs		
2. SE	.19 *	
		*P > .05

Table 4. Correlation between LLSs and SE

Results from this study reveal that 60 EFL Libyan university students' overall use of the LLSs is moderate. These results are comparable to those (Lem, 2019; Magogwe & Oliver, 2007; Montao-González & Cancino, 2020). Similarly, in (Tran, 2021), the participants employed medium-level learning strategies. In terms of the most used strategies, the current study results reported that metacognitive strategies, followed by social strategies, are the most utilized ones. This study supports previous findings. (Kineş,

2021; Montaño-González & Cancino, 2020). Other studies have indicated that the highest used LLSs as cognitive strategies (Alhaisoni, 2012; Wong, 2005). Regarding the lowest used, students use the affective strategies the least. Yilmaz (2010) reported similar findings.

The study reveals that students utilize social strategies more than affective strategies when learning English. For example, when someone speaks English, the students listen attentively; while they are conscious that someone has more excellent English conversational skills than them, they will ask for guidance to better comprehend the relevant matter. As a result, students tend to rely on textbook knowledge while answering exam questions, which may explain why affective strategies are not used as frequently (Alhaisoni, 2012).

Regarding gender differences in the overall usage of LLSs, there is a noticeable disparity in gender in terms of the overall utilization of LLSs. This outcome is aligned with (Ho & Ng, 2016; Rianto, 2020). This can be attributable to the fact that women are more inclined than males to employ an array of LLSs, particularly social LLSs, to receive social acknowledgment for their language skills.

As regards the level of self-efficacy, overall, students in this study perceived themselves to have high SE; the result is consistent with (Ahamad & Abdullah, 2019) that students have a high SE in listening, reading, and speaking skills; however, the lowest level was in writing skills. For writing skills, the results are predictable because students are asked to adhere to linguistic rules when attempting to write, which may be stressful to students and subsequently affect their perceptions of self-efficacy. Other language skills, however, do not force them to be focused entirely on the grammatical aspect, allowing them to be more confident while learning (Ahamad & Abdullah, 2019).

Based on the results, the association between the use of LLSs and SE levels is a weak positive relationship. However, the correlation between LLS and SE was not significant. These results are similar to those of (Bonyadi et al., 2012), who found that the correlation between LLSs and SE was insignificant. On the other hand, the results of other studies were not replicated here (Magogwe & Oliver, 2007; Montaño-González & Cancino, 2020; Tang & Tian, 2015; Wong, 2005). In addition, Montaño-González and Cancino (2020) suggested that one explanation for (Bonyadi et al., 2012) findings might be that the study's participants were less acquainted with the strategies and used them spontaneously. This reason can also be the case for the current study; moreover, participants' size might influence the results.

5. Conclusion and Recommendations

This research aimed to evaluate the link between the LLSs and SE of a group of Libyan EFL university students. It also investigated participants' perspectives on these two factors across gender. The study examined 60 undergraduates at the University of Tripoli. Based on the findings, it was revealed that LLS use was at a moderate level, with social strategies being the most frequently used; furthermore, there was an apparent gender disparity in this particular reference. It was noteworthy that even though students reported high levels of self-efficacy, there was a weak positive connection between LLS usage and SE levels. This study contributes to this increasing field of research by highlighting the learning strategies university students use in Libya and how these strategies interact with self-efficacy concerning the participant's gender. In light of the limited amount of research presently available in Libya's context, it was of the utmost significance to explore the link between SE and the LLSs in the case of Libya. There are a few constraints that need to be understood. The first constraint is attributable to the research methodology, which had a role in establishing a connection between the employment of LLS and SE. Thus, consideration must be given when generalizing the study outcomes. Therefore, it is suggested to adopt a mixed-method approach for future studies to gain more valuable insights regarding participants' LLS usage and SE.

The second limitation is that the participant number was limited due to the study time limit; it is suggested that researchers could replicate the study with a larger sample using a mixed-method approach. Lastly, the research on Libyan EFL learners' LLS practice has been limited; the current research outcomes have added information on LLS in Libya within the framework of language acquisition. Both academics and educators shall benefit from a study about this participant's reported SEs and LLSs, allowing for more effective and productive classroom instruction. According to Oxford and Nyikos (1989), students' judgment of SE and preferences for LLSs might be affected by many factors. Despite the positive findings, this research should be broadened so that a more significant number of the elements influencing students' SE and LLSs may be investigated and confirmed.

The current findings suggest that English language instructors should be more aware of their students' degree of SE in the classroom; these factors should be fostered in the classroom to enhance student learning. In addition, teachers must comprehensively know their students' personalities, ways of thinking, and gender disparities in their learning. Likewise, instructors should seek to promote learners' high SE, which results in the adoption of suitable LLSs, while minimizing learners' negative beliefs that impede language learning.

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References

- [1] Ahamad, M. I. A., & Abdullah, N. (2019). Self-Efficacy and language learning strategies as determinants of students' English language proficiency. *International Journal of Academic Research in Business and Social Sciences*, 9(13). <u>https://doi.org/10.6007/ijarbss/v9-i13/6256</u>
- [2] Alhaisoni, E. (2012). Language learning strategy use of Saudi EFL students in an intensive English learning context. *Asian Social Science*, 8(13). <u>https://doi.org/10.5539/ass.v8n13p115</u>
- [3] Bandura, A. (2006). *Guide for constructing self-efficacy scales.* (F. Parajes & T. Urdan, Eds.; Vol. 5, pp. 307–337). Greenwich, CT: Information Age Publishing.
- [4] Bonyadi, A., Rimani Nikou, F., & Shahbaz, S. (2012). The Relationship between EFL learners' Self-efficacy beliefs and their language learning strategy use. *English Language Teaching*, 5(8). <u>http://dx.doi.org/10.5539/elt.v5n8p113</u>
- [5] Brown, H. D. (2007). Teaching by principles: An Interactive approach to language pedagogy. NY: Person Education.
- [6] Dörnyei, Z. (2009). Individual differences: Interplay of learner characteristics and learning environment. *Language Learning*, 59(1), 230–248. https://doi.org/10.1111/j.1467-9922.2009.00542.x
- [7] Duong, T. M., & Nguyen, H. T. T. (2021). EFL students' perspectives on the employment of language learning strategies. *English Language Teaching Educational Journal*, 4(1), 49. <u>https://doi.org/10.12928/eltej.v4i1.3489</u>
- [8] Hakan, K., Aydin, B., & Bulent, A. (2015). An Investigation of undergraduates' language learning strategies. *Procedia Social and Behavioral Sciences*, *197*, 1348–1354. <u>https://doi.org/10.1016/j.sbspro.2015.07.388</u>
- [9] Ho, A. P., & Ng, L. L. (2016). Gender-based differences in language learning strategies among undergraduates in a Malaysian public university. *Issues in Language Studies*, 5(2). <u>https://doi.org/10.33736/ils.1631.2016</u>
- [10] Kineş, M. (2021). Language learning strategies used in EFL classes and role of gender in high school context. Bingöl Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 22. <u>https://doi.org/10.29029/busbed.928439</u>
- [11] Kitikanan, P., & Sasimonton, P. (2017). The Relationship between English self-efficacy and English learning achievement of L2 Thai learners. *LEARN Journal: Language Education and Acquisition Research Network*, *10*(1), 149–164. <u>https://files.eric.ed.gov/fulltext/EJ1229638.pdf</u>
- [12] Lem, N. C. (2019). Language learning strategies among Vietnamese EFL high school students. Indonesian JELT: Indonesian Journal of English Language Teaching, 14(1), 55–70. <u>https://doi.org/10.25170/ijelt.v14i1.1418</u>
- [13] Li, F. (2010). Relationship between EFL Learners' belief and learning strategy Use by English majors in vocational colleges. Journal of Language Teaching and Research, 1(6). <u>https://doi.org/10.4304/jltr.1.6.858-866</u>
- [14] Linnenbrink, E. A., & Pintrich, P. R. (2003). The role of self-efficacy beliefs in student engagement and learning in the classroom. *Reading & Writing Quarterly*, *19*(2), 119–137. <u>https://doi.org/10.1080/10573560308223</u>
- [15] Magogwe, J. M., & Oliver, R. (2007). The relationship between language learning strategies, proficiency, age and self-efficacy beliefs: A study of language learners in Botswana. System, 35(3), 338–352. <u>https://doi.org/10.1016/j.system.2007.01.003</u>
- [16] Montaño-González, J., & Cancino, M. (2020). Exploring the relationship between language learning strategies and self-efficacy of Chilean university EFL students. *Mextesol Journal*, 44(2), 1–16.
- [17] Nunan, D. (1999). Second language teaching & learning: Newbury House teacher development. Heinle & Heinle.
- [18] O'Malley, J. M., & Chamot, A. U. (1990). Learning strategies in second language acquisition. Cambridge University Press. <u>https://doi.org/10.1017/CBO9781139524490</u>
- [19] Osman, O. H. (2013). The Impact of Teaching Methods on Language Learning Strategies Employed by Learners in a Foreign Language Context. [Unpublished Doctoral Dissertation]. De Montfort University.
- [20] Oxford, R., & Nyikos, M. (1989). Variables affecting choice of language learning strategies by university students. *The Modern Language Journal*, 73(3), 291–300. <u>https://doi.org/10.1111/j.1540-4781.1989.tb06367.x</u>
- [21] Oxford, R. L. (1990). Language learning strategies: What every teacher should know. Heinle & Heinle.
- [22] Oxford, R. L., & Burry-Stock, J. A. (1995). Assessing the use of language learning strategies worldwide with the ESL/EFL version of the Strategy Inventory for Language Learning (SILL). System, 23(1), 1–23. <u>https://doi.org/10.1016/0346-251X(94)00047-A</u>
- [23] Rahemi, J. (2007). Self-efficacy in English and Iranian senior high students majoring in Humanities. Novatis-Royal, 1(2), 98-111.
- [24] Rianto, A. (2020). A Study of language learning strategy use among Indonesian EFL university students. *Register Journal*, *13*(2), 231–256. https://doi.org/10.18326/rgt.v13i2.231-256
- [25] Richards, J., & Platt, H. (1992). Longman Dictionary of Applied Linguistics (2nd ed.). London: Longman Group Ltd.
- [26] Rubin, J. (1987). Learner strategies: Theoretical assumptions, research history and typology. In A. Wenden & J. Rubin (Eds.), *Learner strategies in language learning* (pp. 15–30). Englewood Cliffs, NJ: Prentice Hall International.
- [27] Tang, M., & Tian, J. (2015). Associations between Chinese EFL graduate students' beliefs and language learning strategies. International Journal of Bilingual Education and Bilingualism, 18(2), 131–152. <u>https://doi.org/10.1080/13670050.2014.882882</u>
- [28] Tran, N. T. N. (2021). The Relationship between language learning strategies and gender in learning English as a second or foreign language. *Journal of English Language Teaching and Applied Linguistics*, 3(6), 120–126. <u>https://doi.org/10.32996/jeltal.2021.3.6.17</u>
- [29] Wang, C., Kim, D.-H., Bai, R., & Hu, J. (2014). Psychometric properties of a self-efficacy scale for English language learners in China. *System*, 44, 24–33. <u>https://doi.org/10.1016/j.system.2014.01.015</u>
- [30] Wong, M. S.-L. (2005). Language learning strategies and language self-efficacy: Investigating the relationship in Malaysia. *RELC Journal*, 36(3), 245–269. <u>https://doi.org/10.1177/0033688205060050</u>

- [31] Yilmaz, C. (2010). The relationship between language learning strategies, gender, proficiency and self-efficacy beliefs: a study of ELT learners in Turkey. *Procedia Social and Behavioral Sciences*, 2(2), 682–687. <u>https://doi.org/10.1016/j.sbspro.2010.03.084</u>
- [32] Zimmerman, B. J. (1990). Self-regulating academic learning and achievement: The emergence of a social cognitive perspective (2nd ed., pp. 173–201). Educational Psychology Review.
- [33] Zimmerman, B. J., Bonner, S., & Kovach, R. (2006). *Developing self-regulated learners: Beyond achievement to self-efficacy*. Washington D.C.: American Psychological Association.