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## A Systematic Literature Review of ESL/EFL Learning Strategies and Learner Motivation

**Marzia Shurovi**<sup>1,2</sup> 

<sup>1</sup>Department of English, United International University  
Dhaka, Bangladesh

<sup>2</sup>Universiti Teknologi MARA  
Perlis, Malaysia

**Mohamad Fadhili Yahaya** 

Universiti Teknologi MARA  
Perlis, Malaysia

**Hafizah Hajimia** 

Universiti Utara Malaysia  
Kedah, Malaysia

**Md Kamrul Hasan** 

Department of English, United International University  
Dhaka, Bangladesh

**Abstract.** While language learning strategies of English as a second language or English as a foreign language learners were reportedly linked to learners' motivational beliefs by many theorists and researchers, systematic reviews of how language learning strategies were studied in association with learner motivation in the previous decades were scarce. Therefore, this review paper analysed research trends in language learning strategies in relation to learner motivation from 1960 to 2023. Employing a Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Protocol, this paper selected empirical research papers studying both language learning strategies and motivation from the high-ranking journals from Web of Science and Scopus databases. This review paper employed descriptive, frequency and thematic analyses to trace the diversity of participants, and practical teaching-learning factors that were addressed in 36 empirical studies. In addition, this review summarized the research methods, highlighting key themes that emerged in the research papers. From 18 countries, most of the studies were done in the context of Iran and China. Apart from the majority of tertiary learners as participants, the quantitative method was predominant in the research. In addition to highlighting a few innovative studies that contributed to the literature and practical EFL/ESL teaching

and learning, this review paper advocated more research on culturally diverse populations, technology-integrated ESL/EFL teaching and learning to enhance learner motivation and learning strategy use, and experimenting with effective intervention techniques to contribute to ESL/EFL teaching and learning in the future.

**Keywords:** Motivation; Systematic Review; Learning Strategies; ESL; EFL

## 1. Introduction

Research in language learning strategies has garnered much interest among English as a Foreign Language (EFL) and English as a Second Language (ESL) practitioners and researchers since its inception in the 1970s (Zhang et al., 2019). The early language learning taxonomies developed by Rubin (1975), Stern (1975), and O'Malley et al. (1985) were given a more definite shape by Oxford (1990) with her seminal categorization of previous notions of language learning strategies into six types and her development of Strategy Inventory for Language Learning (SILL) which researchers could easily employ to gauge learners' use of learning strategies in the years to follow (Rose et al., 2018). However, this ever-growing research agenda, with the rising trend of more studies, reached a turning point around the years 2005-2006 with much criticism from renowned scholars (Dornyei, 2005; Tseng et al. 2006). In particular, the terms of research methods in learning strategies, its theorization based on cognitive vs. behavioural factors, and scales to measure them were criticized.

Dornyei (2005) called for the replacement of the concept of language learning strategies with Self-Regulated Learning (SRL) on the grounds that SRL offered a more comprehensive notion of learners' effort to manage their learning with their inner drive, beliefs, and procedures to achieve their learning goal (Zimmerman & Risemberg, 1997). SRL refers to the active management of learning by self-motivated learners who utilize various beliefs and processes to attain their own achievement (Rose et al., 2018). Research findings also asserted the success of SRL intervention in augmenting learners' ability to utilize various learning strategies along with the fact that SRL employment significantly enhanced learners' EFL writing performance and reading comprehension ability (Chen, 2022; Chen et al., 2023; Shen & Bai, 2022). The proponent of SRL proposed the SRL functioning model where the learners' (self) continuing motivation would drive them to employ various strategies based on their self-efficacy (Zimmerman, 1989). Other researchers also reported a significant association between motivation and learners' choice of language learning strategies (Dweck & Leggett, 1988; Yang, 1999). Therefore, theorists of learning strategies and self-regulated learning integrated the motivational beliefs of learners as essential components of utilizing language learning strategies (Oxford, 2011; Zimmerman, 1989).

### 1.1 Significance

The concepts of language learning strategies and learner motivation evolved with various theories and measurement scales since the early formation of research paradigms in the 1970s (Gardner & Lambert, 1972; Rubin, 1975). The key motives of the continual mutation include some unresolved issues regarding strategy

conceptualizations and methods of measurement along with the urgency to integrate ever-changing contexts and updated notions in motivation research (Rose et al., 2018; Vonkova et al., 2021). Since learning strategies and motivation, as individual learner factors, have crucial pedagogical implications for EFL/ESL, the connection between learner motivation and language learning strategies was researched extensively in the literature. With the current transition in the language learning strategy field due to its seemingly changing landscape in the face of a revival of interest in researching SRL, the importance of more research into strategic learning behaviours of learners in connection with other theories, including social-cognitive theories was reinforced (Rose et al., 2018). In particular, SRL incorporated the concept of learner motivation as an integral aspect of learners' use of learning strategies. Therefore, at this juncture of learning strategy research, a systematic literature review of how this aspect of the non-cognitive learning factor (Bjorklund-Young, 2016) was researched in connection with learner motivation as a cognitive factor would be timely. This review paper would offer a roadmap to future researchers with an extensive overview of recent trends and findings in this research field along, with a presentation of the state-of-the-art pedagogical practices to the ESL/EFL practitioners and policy-makers.

## **1.2 Research Objectives**

Despite burgeoning research in learning strategies and learner motivation over the decades, the issues of contradictory research findings, a lack of motivation studies among ethnic populations and the seeming debate over the effectiveness of some learning strategy concepts and motivation theories for practical pedagogy and classroom practices (Anderman, 2020; Bai & Wang, 2021; Farsani et al., 2014; Thomas & Rose, 2019; Vonkova et al., 2021) indicate some areas of the connection between learning strategies and motivation that are yet to be clearly understood, leaving a gap in the literature that necessitates a review to synthesise the previous research findings in this arena. This review paper aimed to examine the salient methods, participants, key themes, research innovations, pedagogical contributions and potential gaps in the empirical studies that integrated motivational components with learning strategies in ESL/EFL contexts.

The following research questions were formulated to review the papers:

1. What is the general trend in learning strategy in relation to learner motivation research in terms of methods, years, participants, geography and emerging key themes?
2. Which innovative contributions do the studies make to the literature of EFL/ESL research?
3. Which practical contributions do the studies make to EFL/ESL education?

## **2. Literature Review**

### **2.1. Current Review of Learning Strategies**

Systematic reviews of learning strategy theories mainly highlighted the most renowned strategy researchers, countries, citations, the impact of SRL on learning strategy research, and unique trends and papers published in a leading journal (Kolemen, 2021; Rose et al., 2018; Zhang et al., 2019). Kolemen (2021) reported an upward research interest in language learning strategy with more than 68% of

research being carried out in the education field. While the Strategy Inventory of Language Learning (SILL) remained the measurement scale of most of the research, the majority of the researchers explored learning strategies in association with individual learner difference factors, like gender and motivation (Kolemen, 2021).

In their groundbreaking review of the crucial stage of learning strategy research, Rose et al. (2018) critically analysed 46 most representative studies from 2010-2016 and categorised recent research into three types. These three categories included the ones that adopted SRL as the central tenet, the ones with the usual notions of learning strategies and the innovative ones in terms of developing new instruments and exploring other theories in connection with learning strategies (Ardasheva, 2016; Ardasheva & Tretter, 2013; Rose & Harbon, 2013; Teng & Zhang, 2016; Veliz, 2012; Ziegler, 2015). While their review reported quantitative measures as the overwhelming method, some innovative context-based qualitative findings were also highlighted. This review paper particularly sets the roadmap for future researchers by encouraging them to undertake learning strategy research in association with other theories or to explore new structures to navigate this changing field. Finally, in analysing 59 research papers published in System from 1977-2019, Zhang et al. (2019) reported an upward trend in the growing amount of learning strategy research over the last 45 years. In addition to summarizing the major findings of the representative strategy research, they also called for more technology-integrated learning strategy research to contribute more to the learning strategy in second language acquisition or foreign language acquisition (SLA)/(FLA). Other systematic reviews on language learning strategies included reviews of SRL in online EFL or ESL contexts, and studies on central tenets of language learning strategies in Taiwan (Hunutlu, 2023; Thomas et al., 2021).

While the previous reviews highlight the ever-growing number of strategy research and challenges faced by the researchers, a systematic review of research on learning strategy in connection with learner motivation would distinctly evaluate which motivation leads to which strategies and, eventually, to L2 success, along with highlighting innovations for effective pedagogy and gaps for future research. Learner motivation has remained one of the fixtures in learning strategy research over the years (Zhang et al., 2019). Moreover, the fact that the practical implications of these studies for recent research and pedagogy have rarely been explored has prompted the researchers to conduct the current review.

## **2.2. Current Review of Motivation**

Review papers on learner motivation focused on the theoretical evolution and contemporary directions of motivation research, the development of diversified theories and their pedagogical implications and recent methodologies, participants and trends in motivation research (Boo et al., 2015; Dornyei, 2003; Vonkova et al., 2021). In his seminal review of motivation research, Dornyei (2003) highlighted the development of influential motivation theories from Gardner's (1985) integrative aspect through the cognitive revolution in psychology leading to the emergence of the cognitive situated approach with self-determination,

attribution, and goal theories. Gardner (1985) referred to learning strategies as one of the potential avenues of motivation research as they manifest learners' motivated learning behaviour. However, he also warned future researchers about the recent criticisms of learning strategy theories.

Meanwhile, Boo et al. (2015) observed a steep upward trend in both practical and theoretical research publications on L2 motivation from 2005-2015. In their comprehensive review of studies published in 123 journals, they noted a substantial growth in qualitative studies in L2 motivation research over the years, along with revealing a continued interest among motivation researchers to explore self-related motivational factors in learning L2 (Boo et al., 2015). In addition, Vonkova et al. (2021) offered a critical review of the development of motivation research from 2016 to 2020 in terms of countries, methods, and findings, reporting the East Asian countries as the prevalent regions and quantitative as the dominant method, and exploring technology-assisted teaching and learning as the new trend in motivation research.

The literature of systematic reviews on motivation and learning strategy theories exhibited that reviews of research that studied the relationship between two significant L2 learning factors, namely motivation and learning strategy, were rare. Dornyei (2003) projected the relationship between motivation and learning strategy to be a promising research direction for future motivation researchers. Recent studies have confirmed the relationship between these individual learner factors and their significant impacts on L2 achievement (Chen et al., 2023; Guo & Bai, 2019). While a few reviews independently examined learning strategy and motivation, most of them were limited in considering certain journals, challenging factors, geographical regions and duration. Therefore, how far research in learning strategy in connection with motivation has progressed over the decades in terms of research populations, methods, innovation in research and contribution to practical pedagogy is yet to be evaluated and synthesised, leaving a gap to be filled in the literature.

Moreover, the fact that research in L2 motivation and language learning strategies continued to grow, witnessing evolving trends and a changing landscape (Boo et al., 2015; Zhang et al., 2019) would warrant a review to identify the current trends, prevailing theories, methods that contribute to the extant body of knowledge and indicate gaps and potential avenues for future researchers to explore. The current review aimed to fill this gap. Therefore, responding to the call for more research on strategic learning, particularly in association with other theories, at this crucial stage of research in learning strategies (Rose et al., 2018) and to fill the existing gap for systematic literature reviews on the motivational theories associated with learning strategies, the present review paper was developed.

### 3. Methods

This review paper adopted a quantitative design for measuring research methods and populations and a qualitative design for synthesizing key themes. In order to conduct a systematic review, the researchers adhered to a set of scientific methods to reduce systematic error (bias) while identifying, appraising, and synthesizing

relevant studies (Rose et al., 2018). According to Macaro et al. (2017), the following criteria would have to be met for a study to be considered systematic:

- a. Studies need to be reviewed by more than one reviewer
- b. Reviewing procedures should be transparent
- c. Exhaustive and reliable searches should help the selection of papers, including doctoral dissertations
- d. Adequate attempts to reduce reviewer bias
- e. Synthesis and discussion of the reliability of the reviewed findings

This review paper met all the above criteria except for the third one as, due to time and resource limitations, the search was conducted on only Web of Science (WoS) and Scopus databases, and the doctoral dissertations were excluded from the review. Since this review did not follow the stringent criteria of a systematic review, it may best be viewed as a semi-systematic review. A semi-systematic approach, guided by a systematic review protocol, enables researchers to retain methodological rigor and adapt to time and resource constraints while offering opportunities for transparency in searching with potentiality in developing a comprehensive written roadmap for future discourse (Zunder, 2021). According to Snyder (2019), a semi-systematic review would use meta-narratives with a focus on “themes, theoretical perspectives or common issues”, and its contribution would include “the ability to map a field of research, synthesize the state of knowledge, and create an agenda for further research (Snyder, 2019, p. 335).” Therefore, a semi-systematic approach was particularly suitable for the current review that specifically focused on recent updates, themes and gaps for future research in a particular field.

Macaro (2020) advocated a team of stakeholders, including English Language Teaching (ELT) practitioners and researchers to enrich the review process with various perspectives on the variables. In the current review team, all members were ELT practitioners with extensive experience; all four reviewers have published articles on learner motivation; two of them published on strategy in EFL and one had expertise in contemporary research methods. This combination enabled the researchers to screen, extract, and synthesize data based on an extraction grid that included space for theoretical frameworks for motivation and language strategy research, participants’ information, methods, contributions to the body of knowledge and reviewers’ suggestions on the inclusion/exclusion of the paper based on the PRISMA protocol.

### **3.1. Inclusion Criteria**

To ensure a systematic and rigorous review of the studies (Moher et al., 2015), a PRISMA protocol was developed in line with the objective of searching and analysing papers. This specific protocol would enable other scholars to replicate this study. According to the protocol, the research studies were selected if they (1) included concepts of both learning strategies and learner motivation, (2) were empirical in nature, and (3) were published in high-ranking journals. Additionally, only the research papers published in English were included, excluding any Masters theses. In line with this, the following inclusion and exclusion criteria were implemented.

The documents were searched from two main repositories, namely WoS and Scopus. These two databases were selected because of their comprehensive indexing of many high-ranking journals in the field of language teaching and learning. The search strings for WoS were 'Learning Strategies and Learner Motivation EFL' and 'Learning Strategies and Learner Motivation ESL'. This yielded 60 documents (Learning Strategies and Learner Motivation ESL) and 302 documents (Learning Strategies and Learner Motivation EFL). The search strings for Scopus were 'Learning Strategies AND Learner Motivation EFL' which identified 187 documents and 'Learning Strategies AND Learner Motivation ESL' which identified 34 documents. In total, 583 documents were primarily selected for the review. At the first stage, the title, abstract, publication years, authors and pertinent information were imported into an Excel file. Then, the exclusion criteria were implemented.

### **3.2. Exclusion Criteria**

The bibliometric information, namely the authors' names, years, and publication years, along with the abstracts of 583 documents was retrieved. Next, 140 duplicates were removed. From the remaining 443 documents, 279 more documents were removed because they fell into the following categories: conference and book chapters, review, not related to strategy/motivation and online study. The next 128 studies were excluded owing to factors like unavailable papers, related to only one language skill (reading/speaking/listening/writing), ESCI papers, and not empirical papers. Finally, the remaining 36 full papers were obtained and reviewed.

### **3.3 Procedure**

Figure 1 is the PRISMA flowchart that shows the stages of screening the documents. The procedure comprised mainly three stages. In the first stage, the researchers searched the relevant documents on WoS and Scopus, applying the search strings. The necessary information, including the research papers' names, journals' names, authors' names, publication years, document types, and abstracts was obtained from the repositories. Next, the exclusion criteria were implemented, and the papers went through screening based on the specific features. Finally, the 36 full papers were retrieved online for the review.

The search was conducted for a span of the earliest years of documents shown on both WoS and Scopus databases till the search date, which was 08 August 2023. All the previous documents from WoS (1970-2023) and Scopus (before 1960-2023) until the search date were included in the screening process.

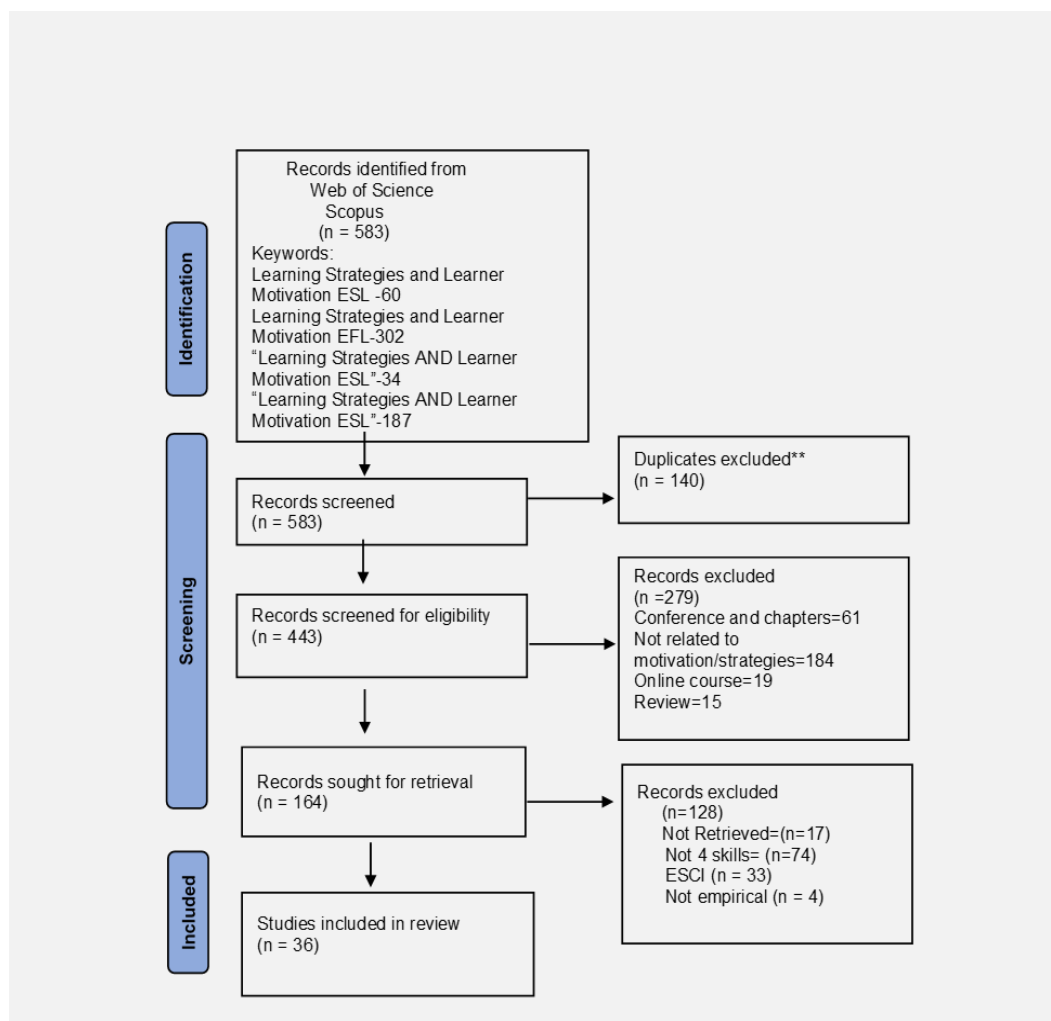


Figure 1: PRISMA flow chart

#### 4. Analysis

The analysis procedure was designed with a descriptive analysis based on the publication years, countries, and number of participants from the papers extracted from Web of Science and Scopus repositories. Next, a frequency analysis was done to identify the predominating motivation theories and language learning strategy taxonomies, research methods and data collection, and analysis tools.

The next phase involved qualitative analysis where the findings of the studies were analysed based on thematic analysis. The key themes of the papers were summarized, and their unique contributions to EFL/ESL teaching and learning were presented using narrative synthesis. Finally, the content analysis led to the identification of potential gaps for providing roadmaps for future researchers.

The core analysis was conducted based on the following features of the papers:

1. Publication year: The number of publications over the years was traced to gain an overall view of the popularity of particular theories.



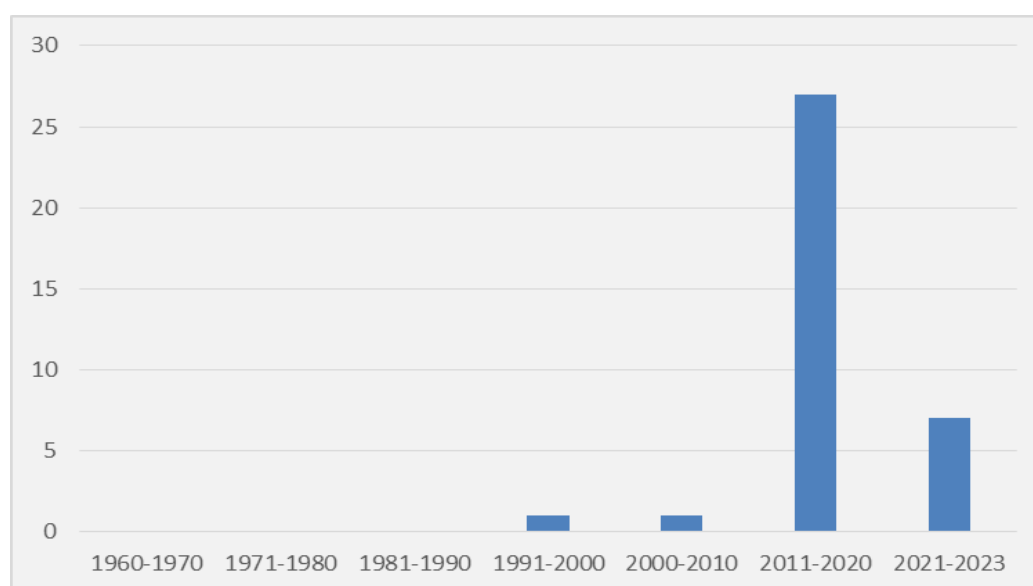
2. Countries: The predominating countries where the research was conducted were also identified.
3. Methodology: The methods of data collection and analysis tools were categorized to identify the recent trends in research methods.
4. Key themes: The findings of the studies were extracted to identify the emerging themes from the publications.
5. Contributions: The key contributions of some unique research studies were categorized.

## 5. Results

### 5.1 Research Demographics

#### *Publication Years*

This review paper encompassed empirical studies published in the Web of Science from 1970–2023, and Scopus from 1960–2023. Figure 2 shows that the number of publications increased over the decades. The decade from 2011 to 2020 yielded the highest number of studies (N=27) followed by the years from 2021 to 2023 (N=7), whereas the decades from 2001 to 2010 and from 1991 to 2000 each had one publication. This ratio established the decade from 2011 to 2020 as the expanding period for research publications on language learning strategies in relation to learners' motivation, and this trend continues to date. No publication from 1960 to 1990 was observed in this review. Figure 2 shows the number of publications over the years.

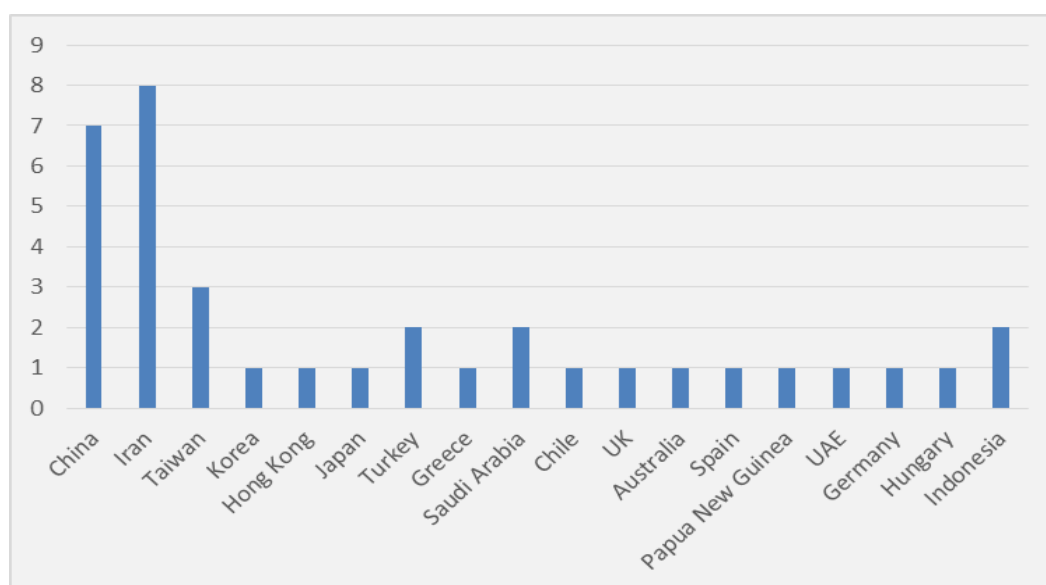


**Figure 2: Number of Publications over the Years**

#### *Countries*

Several geographical regions were part of the research reviewed in this paper that included 18 countries. Figure 3 shows that the highest number of studies came from Iran (N=8), followed by China (N=7) with the second highest number of research. Three studies had participants from Taiwan, whereas Saudi Arabia, Turkey, and Indonesia formed populations for two studies each. The United

Kingdom, Hungary, Korea, Japan, The United Arab Emirates, Chile, Greece, Australia, Spain, Papua New Guinea, Germany, and Hong Kong formed the population for one study each. The predominance of Western and Eastern Asian (Iran, China, Taiwan) populations implied more scope to include participants from other regions with more diversified backgrounds and cultures in motivation and language learning strategy research. Interestingly, English was a foreign language in the countries that prevailed in these studies which indicated a more crucial role of effective language learning strategies and high motivation in EFL contexts than in ESL contexts. Figure 3 shows the countries of the publications on learning strategies in association with learner motivation.



**Figure 3: Number of Publications Based on Countries**

### *Participants*

The average sample size of all quantitative participants was 793.851, which was relatively high. The highest sample size for a single study was 11 036 found in the study by Ma et al. (2017). The second-highest sample size (N=1365) was observed in the study of Habok et al. (2022). Without these two studies, with a wide-ranging sample size, the average sample size of the rest of the studies (N=25) came down to 361.32, which was also fairly large. The total sample of all qualitative participants amounted to 86 with the highest sample size of 50 from the study of Nasmilah (2018), and the lowest sample size (N=1) was observed in the study of Leba et al. (2021). The participants of the mixed-methods studies were subsumed under the quantitative and qualitative participants. The only experimental study reviewed in this paper had a sample size of 125 found in the study of Seker (2016).

### *Level of Education*

The highest number of studies (N=18) had sample participants from the undergraduate level. One possible reason could be the convenient sampling by the university-affiliated researchers for whom conducting research work was part of professional obligations. Secondary school learners formed the population of the second highest number of studies (N=9) followed by intermediate-level

learners (N=5). Teachers and learners of various educational levels learning L2 at a private language institute formed the population of two studies each. Primary-level learners were participants in one study, and vocational students formed the population for one study. No post-graduate or pre-primary participants were observed in the studies reviewed in this study.

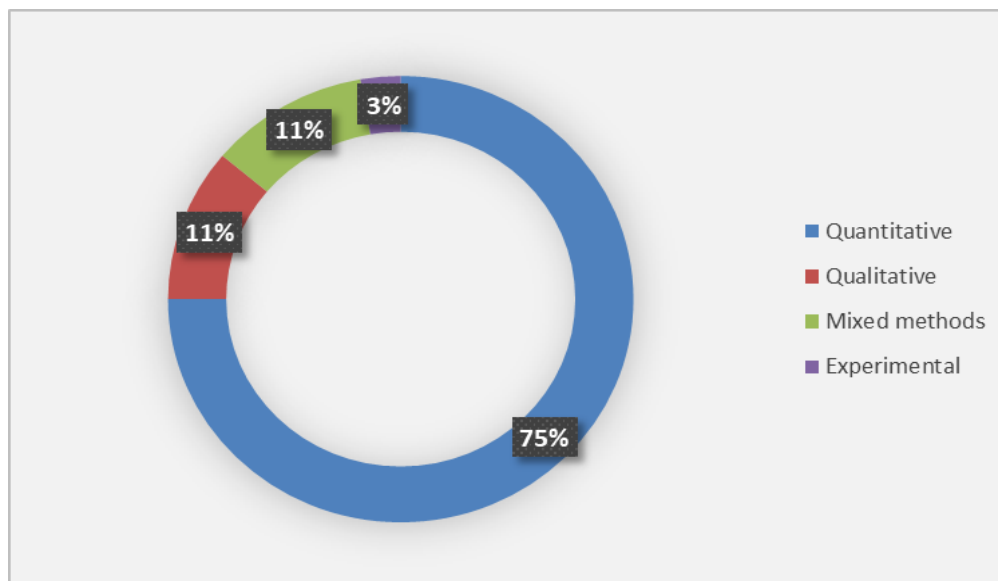
## 5.2 Research Methods of the Studies

While an overwhelming number of studies employed quantitative research design (N=27), a few studies used qualitative (N=4), and mixed methods (N=4). Only one experimental research that explored learners' learning strategies in relation to their motivation appeared in this review. The research designs of the studies are shown in Table 1.

**Table 1: Various Research Designs**

Serial No.	Author(s)	Year	Research Design
1.	Rahimi et al.	2008	Quantitative
2.	Karbaksh & Safa	2020	Quantitative
3.	Daif-Allah	2012	Quantitative
4.	Ma	2021	Mixed methods
5.	Khodadad & Kaur	2016	Quantitative
6.	Onah et al.	2020	Qualitative
7.	Salehi & Jafari	2015	Quantitative
8.	Ayaz & Erten	2021	Quantitative
9.	Nahavandi & Mukundan	2014	Quantitative
10.	Habok et al.	2022	Quantitative
11.	Kim et al.	2015	Quantitative
12.	Su et al.	2018	Quantitative
13.	Tsuda & Nakata	2012	Mixed methods
14.	Leba et al.	2021	Qualitative
15.	Montano-Gonzalez & Cancino	2020	Mixed methods
16.	Alabidi et al.	2022	Qualitative
17.	Platsidou et al.	2017	Quantitative
18.	Phakiti et al.	2013	Quantitative
19.	Zhang & Xiao	2006	Quantitative
20.	Martinez et al.	2015	Quantitative
21.	Jaekel	2018	Quantitative
22.	Setiyadi et al.	2016	Quantitative
23.	Wu	2011	Quantitative
24.	Nasmilah	2018	Qualitative
25.	Chou	2021	Quantitative
26.	An et al.	2023	Quantitative
27.	Domakani et al.	2012	Quantitative
28.	An et al.	2020	Quantitative
29.	Javid & Al-Malki	2018	Quantitative
30.	Seker	2016	Experimental
31.	Ma et al.	2017	Quantitative
32.	Yang	1999	Quantitative
33.	Khazaie & Mesbah	2014	Quantitative
34.	Tabatabaei & Arjmand	2013	Mixed methods
35.	Bai & Wang	2023	Quantitative
36.	Liu	2015	Quantitative

Figure 4 shows that the majority of studies (75%) employed quantitative research design. Qualitative and mixed methods designs were employed by 11% each, and 3% of studies were experimental in nature.



**Figure 4: Number of Various Research Designs**

#### *Quantitative Studies*

Data for all quantitative studies were collected, using a questionnaire (N=27). For data analysis, a variety of data analysis tools were used in the empirical study with correlation as the highest employed data analysis technique (N=17) followed by descriptive analysis (N=15), and Path model analysis (N=8). ANOVA and *T*-test each appeared in five studies, whereas Mediation analysis (N=3), Frequency analysis (N=3), MANOVA (N=2), and Latent Profile analysis (N=1) were used as data analysis tools in a few studies. Confirmatory Factor Analysis (CFA), and Principal Component Analysis (PCA) were used in three studies, and Exploratory Factor Analysis (EFA) was used in four studies as a tool for the development of new instruments and for validating previously established questionnaire tools. The questionnaire was the data collection tool used overwhelmingly in quantitative studies. The trend of data analysis techniques of the quantitative studies that were included in this review paper were correlation, descriptive, and path model analysis.

#### *Qualitative and Mixed Methods Studies*

All the qualitative studies used interviews as data collection tools (N=4). The interview was combined with other data collection tools that included Case Study (N=2), focus group discussion (FGD) (N=2) and, class observation (N=2). For qualitative data analysis, coding and pattern coding appeared (N=2) with content analysis (N=4), and thematic analysis (N=2).

The mixed methods research (N=4) utilized a questionnaire survey in combination with semi-structured interviews (N=4) in addition to classroom observation (N=1) as data collection tools. The data analysis procedures included

frequency analysis (N=1), descriptive analysis (N=2), correlation analysis (N=2), cluster analysis (N=1), along with thematic analysis (N=4). The only experimental study (Seker, 2016) in this review used pre-test and post-test techniques. This study employed intervention techniques with experimental groups along with questionnaires and interviews as data collection tools. Frequency analysis and coding were conducted as data analysis procedures.

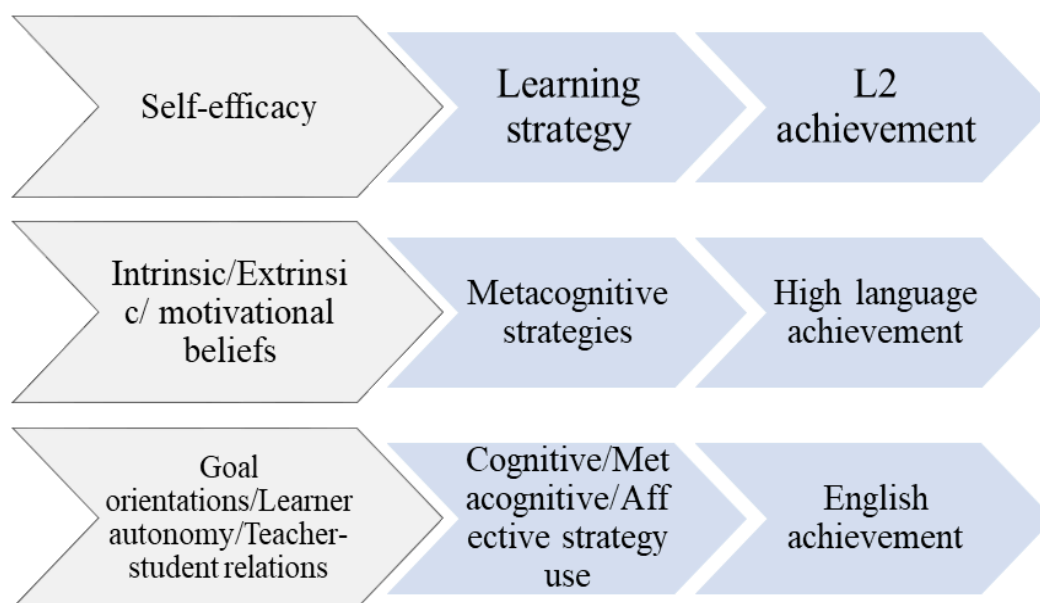
### 5.3 Key Themes

#### *Self-efficacy & Learning Strategy*

A good number of studies (N=8) reported a positive and significant correlation between learners' self-efficacy, which is a key component of achievement motivation (Troia et al., 2012) and their use of language learning strategies. Khodadad and Kaur (2016) reported a strong association between self-efficacy and learners' learning strategy use and the influence of self-efficacy on learners' learning strategy use which, in turn, impacted their language achievement (Khodadad & Kaur, 2016). Kim et al. (2015) reported that self-efficacy significantly impacted learners' SRL use, and the high self-efficacious learners' mean score for employing SRL strategies was higher than that of low self-efficacious learners (Jaekel, 2016; Kim et al., 2015). Self-efficacy predicted learners' strategy use (Wu, 2011) which was also significantly correlated to learners' SRL strategy use in utilization of online learning resources (Su et al., 2018). In their mixed methods study, Montaña-Gonzalez et al. (2020) narrated their qualitative findings where low-achieving participants believed that their motivation would augment their strategy use, and their increasing strategy use would bolster their self-efficacy, which suggested that self-efficacy and learning strategy use both influenced each other positively. This was further reinforced by the findings of Habok et al. (2022) who observed that motivation was also significantly influenced by learners' strategy use. All these findings underscored the reciprocal relation between learners' self-efficacy and the use of language learning strategies, which also influenced their L2 achievement.

#### *Motivation, Strategy & High Achievement*

Metacognitive and cognitive strategies were predominantly explored in relation to the motivational beliefs of learners. Significantly, the motivational factors were found to influence learners' strategy use and to be related to the learners' proficiency. Some studies reported that high achievers and advanced learners used more metacognitive, cognitive and social strategies (Habok et al., 2022; Leba et al., 2021; Zhang & Xiao, 2014). Setiyadi et al. (2016) observed that metacognitive strategies were significantly predicted by learners' extrinsic, intrinsic, and international motivational orientations. Metacognitive and cognitive strategies were found to be the mediators between learners' task value and test scores (Chou, 2021). This study revealed that learners' cognitive, metacognitive, and emotion-control strategies were significantly influenced by their task value (Chou, 2021). Figure 5 demonstrates the themes that predominated in the studies.



**Figure 5: Predominating Themes Emerged**

#### ***Learner Goal, Autonomy, Strategy & Achievement***

The study of An et al. (2023) reported that mastery and performance goal orientations significantly predicted learners' metacognitive and affective regulations. By contrast, cognitive and metacognitive strategies emerged as mediators between teacher-student relations and English achievement (Ma et al., 2017). Liu (2015) demonstrated a significant positive association between learner autonomy, and cognitive and metacognitive strategy use (Liu, 2015). Overall, the findings suggested that learners' cognitive and metacognitive strategy use influenced their language achievement, whereas learners' motivational orientations, like extrinsic and intrinsic motivation along with their task value and goal orientations, played a pivotal role in prompting them to utilize various learning strategies.

#### **5.4 Innovative Contributions to ELT Research**

This review paper identified a few innovative studies with notable contributions to the field of ELT research in terms of developing new questionnaire instruments, exploring the role of reflective diary writing and technology to heighten learners' SRL, examining inner factors of learners that affected their SRL, and experimenting with the effectiveness of scenario-based instruction in increasing learners' SRL awareness (Alabidi et al., 2022; An et al., 2020; An et al., 2023; Salehi & Jafari, 2015; Seker, 2016; Tsuda & Nakata, 2012). The innovative contributions are presented in Table 2.

**Table 2: Innovative Contributions**

<b>Author(s)</b>	<b>Research Design</b>	<b>Innovative Contributions</b>
An et al. (2020)	Quantitative	Developing and validating a Technology-Based Self-Regulated English Learning Strategies Scale (TSELSS)
Salehi & Jafari (2015)	Quantitative	Developing and validating more achievement motivation-oriented motivation questionnaire including intrinsic motivation, goal setting, locus of control and self-efficacy
Alabidi et al. (2022)	Qualitative	Exploring the role of reflective diary writing in enhancing learners' motivation and SRL
An et al. (2023)	Qualitative	Investigating learners' inner drive to use technology to learn English and how it relates to their proficiency
Tsuda & Nakata (2012)	Mixed Methods	Employing cluster analysis to examine learners' learning profiles and investigating how inner factors impact their SRL and achievement

***Quantitative: Development of Instruments***

Salehi and Jafari (2015) developed and validated a questionnaire instrument on learners' SRL which went through two pilot tests along with exploratory and confirmatory factor analyses. In addition to intrinsic motivation orientation, this instrument included more specific achievement motivation orientations, namely self-efficacy, internal locus of control, and goal setting. Also, the results of tests confirmed its satisfactory psychometric properties. On the other hand, An et al. (2020) developed a Technology-Based Self-Regulated English Learning Strategies Scale (TSELSS) which integrated learners' self-directed technology-based English learning regulations. Apart from the pilot study and satisfactory factorial analyses, its concurrent validity was established through the correlation of self-efficacy and English performance of an independent sample of learners. This questionnaire incorporated items on learners' regulations for song and movie watching, and technology-related vocabulary learning regulation. These questionnaire instruments were remarkable in terms of incorporating more cognitive motivational facts and integrating SRL regulations for utilizing technological resources with self-regulated language learning of learners.

### ***Qualitative and Mixed Methods: In-depth Exploration***

Alabidi et al. (2022) explored the role of reflective diary writing on the part of learners and its impacts on their motivation and SRL. This was a rich, in-depth, qualitative study that integrated Zimmerman's cyclic model of SRL and Vygotsky's social constructive theories to investigate how their account of learning could enhance their cognitive and metacognitive regulations, and motivation. An et al.'s (2023) study revealed that various motivational orientations acted as internal drives for prompting learners to regulate their self-directed technology use to learn English. Learners' motivational drive to use technology to learn English differed across their proficiency. This study reported motivation as the crucial driving force for learners to utilize technology to enhance their L2 proficiency. The other inner factors that may significantly influence learners' SRL and language achievement were investigated by Tsuda and Nakata (2012) who conducted a mixed method study. Through cluster analysis, they divided learners into four types and interviewed them, revealing that the complex interplay of their inner factors, namely goal orientation, self-efficacy, and intrinsic value significantly affected their self-regulated English learning and L2 achievement. The learner with high self-regulation had performance goal orientation and high intrinsic motivation and was also a high achiever in English.

These studies uniquely contributed to ELT research by setting a recent trend of exploring social cognitive factors in EFL in connection with SRL strategies, along with developing and validating suitable instruments in line with this research, enriching the literature. These studies also contribute to the body of knowledge by investigating factors that influence learners' use of technology in L2 learning, paving the way to develop more effective interventions to incorporate technology in language learning programmes. Additionally, they exhibit the positive impact of self-reflected diary writing on learner motivation and SRL, along with revealing through cluster analysis the way the cognitive composite of goal orientation, intrinsic value, and self-efficacy are associated with self-regulated learning. These studies resonate with the growing popularity of researching the impacts and mediations of achievement motivational components in relation to learners' SRL strategies in recent years.

## **5.5 Practical Contributions for EFL/ESL Teaching and Learning**

### ***Teacher-led interventions and affective factors***

Ma (2021) presented a 4-factor model of the factors that contribute to the low achievement of EFL learners. Among the factors, effort and interest constitute affective variables, and prior attainment and teachers constitute academic variables. This study showed that teachers may play a pivotal role in re-triggering interest among low achievers, resulting in their building confidence and making greater efforts for subsequent improvement in academic results. This model proposes interventions by teachers in terms of the affective variables, and the universities in terms of the academic variables to reverse the low achievers with effective scaffolding (Ma, 2021).

Nasmilah (2018) evaluated the effectiveness of a total immersion programme for L2 learners in an Indonesian boarding school and reported that learners found the



personal and individual approach of their teachers less formal than the traditional classroom teachers; this behaviour encouraged learners to use English as their language of daily communication in boarding school life. The ability to express themselves in simple terms equips learners to develop more complex terms in the long run. This ability also enhances their motivation to learn, driving them to eventually employ various learning strategies. The researcher advocates a total immersion programme as a probable alternative to overcome obstacles the learners encounter in traditional classroom interactions in L2 (Nasmilah, 2018).

#### *Strategies for enhancing self-regulated learning (SRL)*

Ayaz and Erten (2021) investigated the causal influence of individual learner factors on the Directed Motivational Currents (DMC) experienced by the learners and revealed the direct and indirect influence of the imagination capability of learners on their DMC. The researchers recommend vision-setting and vision-maintenance activities in language classrooms to help learners constitute a clearer vision of their Ideal L2 self to reach the end-point of their learning goals. The researchers proposed some curriculum development to enhance the DMCs of learners in terms of external intervention to help boost the self-regulated learning behaviours of EFL learners (Ayaz & Erten, 2021).

Alabidi et al. (2022) reported in their qualitative study that learners who maintained a reflective diary writing activity improved their cognitive and metacognitive awareness, and strategy along with self-efficacy (Alabidi et al., 2022). In addition, following Zimmerman's three-phase, self-regulated cyclic model of self-regulation of forethought, performance and reflection, teachers were able to better understand the knowledge, weaknesses and motivation in L2 learning, and this process enabled the teachers to play the role of facilitators in making learners aware of their weaknesses, explore their strengths and become independent learners (Alabidi et al., 2022).

#### *Technology-based resources and motivational approaches*

An et al. (2023) explored the self-regulated learning of Chinese EFL learners to adopt technology-based resources to plan and monitor their learning process and progress in relation to the Theory of Planned Behaviour (TPB). The researchers noticed that the constructs of TPB, along with mastery goal orientations significantly contributed to their use of technology to organize their L2 learning. In this regard, the perceived usefulness, the facilitating conditions, and the support available for technology use played a pivotal role in the whole process of learners' motivation to utilize technology in learning L2. The researchers recommend stratified teaching by grouping learners of similar proficiency levels and tailoring pedagogical practices to cater to the problems of learners of different levels and to enhance their different dimensions of technology-heightened self-regulation (An et al., 2023).

In addition, the experimental study conducted by Seker (2016) aimed to determine if scenario-based instruction was effective for increasing learners' awareness and use of SRL. This study was based on Oxford's (2011) strategic self-regulated learning which conducted pre- and post-training sessions to confirm the findings that the extensive scenario-based instructions augmented learners' awareness and

utilization of SRL. This study was unique in terms of developing training sessions to stimulate learners' SRL which may equip the EFL/ESL practitioners with techniques to further enhance learners' SRL and policymakers to introduce effective interventions to enhance learners' self-regulated learning.

Overall, the studies exhibit a rich array of investigation into the factors that affect learners' motivation, use of learning strategies, and L2 achievement, recommending a number of intervention measures to improve these aspects of EFL/ESL teaching and learning that could direct future pedagogy and research in this field.

## **6. Discussion**

### **6.1 The Significant Growth of Research in the Past Decade**

This review paper identified that the last decade has witnessed a substantial growth of research in learning strategies in association with learner motivation. This finding concurs with that of Zhang et al. (2019) who also found the last decade was the most productive time for learning strategy research. The current study's finding is in accord with that of Koenka (2020) who termed the last two decades as the burgeoning period for research in EFL/ESL motivation. The growing popularity of research in L2 motivation and learning strategy may be attributed to the findings that learner motivation has been found to significantly influence learners' choice and implementation of effective learning strategies (An et al., 2023; Chou, 2021). Additionally, motivation has been found as one of the most significant predictors of success in language learning (Mahmoodi & Yousefi, 2021), and researchers and practitioners have the common goal of making EFL/ESL learning as effective as possible through strategic learning. However, research on both motivation and learning strategy is undergoing transitions; motivation research is expanding, with emerging attention on socio-cultural context, and learning strategy research is changing the landscape with a renewed interest in self-regulated learning (Mahmoodi & Yousefi, 2021; Rose et al., 2018). Since the current phase of motivation research is termed a 'socio-dynamic' phase comprising motivational change, self-regulation, and development of individual motivation in the socio-cultural context (Oxford, 2020), more research on learner motivation and learning strategy in association with complex socio-cultural contexts holds a promising avenue for future researchers.

### **6.2 The Role of Technology**

Technology is a new sensation in recent research in motivation and learning strategies. Three studies in this review paper integrated technology in exploring learner motivation and learning strategies, which corroborates the view of Al-Hoorie (2017) and Mahmoodi and Yousefi (2021) that motivation research is yet to incorporate technology on a large scale. In contrast, the finding of this paper contradicts the findings of Vonkova et al. (2021) who reported the rise of technology-oriented motivation research. This finding could be further explained in light of the fact that technology is an integral part of our day-to-day life nowadays. Studies confirm the potential revolution in EFL/ESL teaching and learning through technology-supported classrooms that incorporate digital game-based learning and open and distance learning platforms (Akintolu & Adewoye,

2024; Zuniga et al., 2024). Therefore, this review paper advocates more integration of digital technology into research, exploring learning strategies in relation to learner motivation. In particular, effective implementation of various teaching methods, apps, and online learning strategies could be explored in future research.

### **6.3 Methodological Gaps**

The majority of studies reviewed in this study employed quantitative research design which supports the findings of Rose et al. (2018) and Vonkova et al. (2021). In this regard, innovative data collection techniques may prove more effective in future research. Particularly, events-related episodes and eye-tracking techniques may enable researchers to tap learners' moment-to-moment motivation and cognitive processes of employment of various learning strategies while working on one specific activity (Zhang et al., 2019). This review paper also calls for more robust qualitative and experimental research on learning strategy in association with learner motivation to add to the extant rich array of research on motivation and language learning strategy.

### **6.4 Underexplored Populations and Contexts**

Among the papers reviewed, one paper studied an aboriginal learner from Papua, and this implies more scope for future studies to incorporate ethnic and socially disadvantaged learners in motivation and learning strategy research. This finding echoes the concern of Koenka (2020) that ethnic people have remained largely underexplored in many motivational studies. Moreover, the finding that the majority of studies explored learners from Western and Eastern Asian regions resonates with the findings of Vonkova et al. (2021) who also reported that the majority of motivation studies were conducted in East Asian regions.

In addition, the regions of South Asia, Europe and America were found to be underexplored in the papers. This finding implies the scope of more research in learner motivation and learning strategies that incorporate populations from regions that are predominantly English-speaking countries with cultural diversity and classroom settings that are different from those of Asian countries. This fact may be explained from the EFL vs. ESL perspectives. As English is largely a foreign language in Asian countries, motivation and learning strategies are of immense importance for their success in learning L2. Thus, the majority of studies on learner motivation and learning strategies were conducted in countries where the English language enjoyed the status of a foreign language.

### **6.5 Advancing Research: Present & Future**

This review paper highlights a few innovative pieces of research concentrated on novel ideas for developing tech-oriented SRL scales, experimenting with the effects of maintaining reflective diaries on learners' own SRL, and designing scenario-based instructions to enhance learners' motivation and SRL. All this contributes to the level of policy-making, teacher training and new pedagogical practices which confirm the opinion of Anderman (2020) that motivation theories have practical implications for EFL/ESL teaching and learning in different contexts. In addition, further examination of intervention with effective strategy instruction and development of innovative teaching-learning modules to enhance

learner motivation by reporting their effect sizes may elevate research in motivation with learning strategy to the next highest level.

Qualitative and mixed methods measures were under-used in terms of research designs. This finding resonates with that of the previous reviews of motivation research (Shurovi et al., 2024; Vonkova et al., 2021). Since motivation is a cognitive and affective variable, and language learning strategies are considered non-cognitive, metacognitive, and behavioural, qualitative data offers more detailed and elaborate windows into their inner operationalizing of language learning. From this view, there are more opportunities to utilize think-aloud and stimulated recall techniques for future researchers. In addition, the under-use of experimental research design in the papers implies that more experimental studies hold a potential avenue for researchers to experiment with innovative practices and pedagogical strategies that could enhance learners' SLA/FLA. Also, innovative research ideas, like extracting learners' profiles on strategy use and motivation from cluster analysis could be further elaborated in longitudinal studies to capture the ups and downs of their motivation, along with their use of learning strategies over the years of language learning.

With state-of-the-art analysis tools, like SEM, more researchers may explore the complex relationships of motivation, learning strategies, and other contextual and affective factors to offer an in-depth overview of their role in language learning. The socio-economic factors, particularly, have rarely been studied in the reviewed papers. Also, classroom-related factors were under-investigated in the papers. Future researchers may incorporate these influential factors in their research.

## **7. Conclusion**

This review was conducted with the aim of examining the salient methods, populations, countries and emerging key themes, along with research innovations and pedagogical contributions of the studies in EFL/ESL learning strategies in association with learner motivation. One of the limitations of the current study was that only publications of high-ranking journals from Web of Science and Scopus were included in the review. Therefore, a good number of publications from other databases were excluded from the review. Furthermore, this review does not include the studies that focused on only 1/2 of language skills, such as speaking or writing. However, based on the papers that it reviewed, a few recommendations for future studies have been made.

This review paper calls for a more inclusive research agenda by incorporating more culturally diversified populations from South Asia, Europe and American regions with more scope for mixed-methods and experimental research designs. Future researchers may consider exploring and designing effective teacher-training programmes to train them to learn trending pedagogy, including stratified teaching, reflective diary writing and total immersion techniques.. Technology holds greater potential for future pedagogy; therefore, conducting more experimental studies to introduce effective technology-based teaching modules for enhancing learners' SRL strategies and cognitive motivation, particularly for the low achievers, is advocated.

This review paper was done in response to the call to explore the rich history of learning strategy research over many years (Zhang et al., 2019). The researchers investigated empirical studies to represent the key themes and a few gaps from the rich intricate tapestry of research into learning strategy use in association with learner motivation. The reviewers contend, standing at a crucial juncture of learning strategy research, that this field, integrated with learner motivation, holds immense promise of future contribution to EFL/ESL teaching and learning, particularly in terms of understanding learner psychology, navigating challenges of a new era, developing more effective pedagogical and learning techniques for future researchers.

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## 9. References

- Akintolu, M., & Adewoye, S.E. (2024). Systematic review of the role of open and distance education in achieving the sustainable development goals (SDGs). *International Journal of Learning, Teaching & Educational Research*, 23(12), 113–129. <https://doi.org/10.26803/ijlter.23.12.7>
- Alabidi, S., Owais, A., Alabidi, F., & Taani, O. (2022). Exploring the role of reflective diaries as a formative assessment strategy in promoting self-regulated learning among ESL students. *Practical Assessment, Research, and Evaluation*, 27, 1–13. <https://doi.org/10.7275/kw8k-5n11>
- Al-Hoorie, A.H. (2017). Sixty years of language motivation research: Looking back and looking forward. *SAGE Open*, 7(1). <https://doi.org/10.1177/2158244017701976>
- Anderman, E.H. (2020). Achievement motivation theory: Balancing precision and utility. *Contemporary Educational Psychology*, 61, 1–7. <https://doi.org/10.1016/j.cedpsych.2020.101864>
- An, Z., Gan, Z., & Wang, C. (2020). Profiling Chinese EFL students' technology-based self-regulated English learning strategies. *PLoS ONE* 15(10). <https://doi.org/10.1371/journal.pone.0240094>
- An, Z., Lai, C., & Gan, Z. (2023). Motivation in self-directed use of technology for English learning among high, average, and low achievers. *System*, 115(6), 1–17. <https://doi.org/10.1016/j.system.2023.103051>
- Ardasheva, Y. (2016). A structural equation modeling investigation of relationships among school-aged ELLs' individual difference characteristics and academic and second language outcomes. *Learning and Individual Differences*, 47, 194–206. <https://doi.org/10.1016/j.lindif.2016.02.010>
- Ardasheva, Y., & Tretter, T. R. (2013). Strategy inventory for language learning-ELL student form: Testing for factorial validity. *The Modern Language Journal*, 97, 474–489. <https://doi.org/10.1111/j.1540-4781.2013.12011.x>
- Ayaz, A. D., & Erten, I. H. (2021). DMC and individual differences: A path analytical investigation in Turkish EFL context. *Cukurova University Faculty of Education Journal*, 50(2), 663–676. <https://doi.org/10.14812/cuefd.949967>
- Bai, B., & Wang, J. (2021). Hong Kong secondary students' self-regulated learning strategy use and English writing: Influences of motivational beliefs. *System*, 96, 1–44. <https://doi.org/10.1016/j.system.2020.102404>

- Bai, B., & Wang, J. (2023). The role of growth mindset, self-efficacy and intrinsic value in self-regulated learning and English language learning achievements. *Language Teaching Research*, 27(1), 207–228. <https://doi.org/10.1177/1362168820933190>
- Bjorklund-Young, A. (2016, June 1). *What do we know about developing students' non-cognitive skills?* Johns Hopkins Libraries. <https://jscholarship.library.jhu.edu/items/356b1942-95f0-400c-ac38-86b4eafa94d1>
- Boo, Z., Dörnyei, Z., & Ryan, S. (2015). L2 motivation research 2005–2014: Understanding a publication surge and a changing landscape. *System*, 55, 145–157. <https://doi.org/10.1016/j.system.2015.10.006>
- Chen, J. (2022) The effectiveness of self-regulated learning (SRL) interventions on L2 learning achievement, strategy employment and self-efficacy: A meta-analytic study. *Frontiers in Psychology*, 13, 1–17. <https://doi.org/10.3389/fpsyg.2022.1021101>
- Chen, J., Lin, C.H., Chen, G., and Fu, H. (2023). Individual differences in self-regulated learning profiles of Chinese EFL readers: A sequential explanatory mixed-methods study. *Studies in Second Language Acquisition*, 45, 955–978. <https://doi.org/10.1017/S0272263122000584>
- Chou, M.H. (2021). Modeling the relations among task value, strategies, social factors, and English achievement. *The Journal of Educational Research*, 114(4), 357–366. <https://doi.org/10.1080/00220671.2021.1937915>
- Daif-Allah, A.S. (2012). Beliefs about foreign language learning and their relationship to gender. *English Language Teaching*, 5(10), 20–33. <http://dx.doi.org/10.5539/elt.v5n10p20>
- Domakani, M.R., Roohani, A., & Akbari, R. (2012) On the relationship between language learning strategy use and motivation. *The Southeast Asian Journal of English Language Studies*, 18 (4), 131–144. <http://ukm.my/ppbl/3L/3LHome.html>
- Dörnyei, Z. (2003). Attitudes, orientations and motivations in language learning: Advances in theory, research and applications. *Language Learning*, 53(1), 3–32. <https://doi.org/10.1111/1467-9922.53222>
- Dörnyei, Z. (2005). *The psychology of the language learner: Individual differences in second language acquisition*. Lawrence Erlbaum Associates Publishers.
- Dweck, C.S., & Leggett, E.L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95(2), 256–273. <https://doi.org/10.1037/0033-295X.95.2.256>
- Farsani, A.M., Beikmohammadi, M., & Mohebbi, A. (2014). Self-regulated learning, goal-oriented learning, and academic writing performance of undergraduate Iranian EFL learners. *TESL-EJ*, 18(2), 1–19. <http://www.tesl-ej.org/pdf/ej70/a4.pdf>
- Gardner, R.C., & Lambert, W.E. (1972). Attitudes and motivation in second language learning. In: A.G. Reynolds, (Ed.), *Bilingualism, Multiculturalism and Second Language Learning*. New York: Psychology Press.
- Guo, W., & Bai, B. (2019). Effects of self-regulated learning strategy use on motivation in EFL writing: A comparison between high and low achievers in Hong Kong primary schools. *Applied Linguistics Review*, 1–23. <https://doi.org/10.1515/applirev-2018-0085>
- Habók, A., Magyar, A., & Molnár, G. (2022). English as a foreign language learners' strategy awareness across proficiency levels from the perspective of self-regulated learning metafactors. *Frontiers in Psychology*, 13, 1–13. <https://doi.org/10.3389/fpsyg.2022.1019561>

- Hunutlu, Ş. (2023). Self-regulation strategies in online EFL/ESL learning: A systematic review. *Studies in Self-Access Learning Journal*, 14 (2), 136-166. <https://doi.org/10.37237/140203>
- Jaekel, N. (2018). Language learning strategy use in context: The effects of self-efficacy and CLIL on language proficiency. *International Review of Applied Linguistics in Language Teaching*, 58(2), 1-26. <https://doi.org/10.1515/iral-2016-0102>
- Javid, C.Z., & Al-Malki, E.A. (2018). Saudi university undergraduates' beliefs about language learning along gender lines. *International Journal of English Linguistics*, 8(4), 39-49. <https://www.ccsenet.org/journal/index.php/ijel/article/view/72956>
- Karbaksh, R., & Safa, A.M. (2020). Basic psychological needs satisfaction, goal orientation, willingness to communicate, self-efficacy, and learning strategy use as predictors of second language achievement: A structural equation modeling approach. *Journal of Psycholinguistic Research* 49, 803-822. <https://doi.org/10.1007/s10936-020-09714-7>
- Khazaie, Z.M., & Mesbah, Z. (2014). The relationship between extrinsic vs. intrinsic motivation and strategic use of language of Iranian intermediate EFL learners. *Theory and Practice in Language Studies*, 4(1), 99-109. <https://www.academypublication.com/issues/past/tpls/vol04/01/15.pdf>
- Khodadad, M., & Kaur, J. (2016). Causal relationship between integrative motivation, self-efficacy, strategy use and English language achievement. *The Southeast Asian Journal of English Language Studies*, 22(3), 111-125. <https://ejournal.ukm.my/31/article/view/13972/4925>
- Kim, D.H., Wang, C., Ahn, H.S., & Bong, M. (2015). English language learners' self-efficacy profiles and relationship with self-regulated learning strategies. *Learning and Individual Differences*, 38, 136-142. <https://doi.org/10.1016/j.lindif.2015.01.016>
- Koenka, A.C. (2020). Academic motivation theories revisited: An interactive dialog between motivation scholars on recent contributions, underexplored issues, and future directions. *Contemporary Educational Psychology*, 61 1-6. <https://doi.org/10.1016/j.cedpsych.2019.101831>
- Kolemen, U. (2021). A systematic review of studies on language learning strategies from 1977 to 2018. *International Journal of Language and Literary Studies*, 3(1), 151-169. <https://doi.org/10.36892/ijlls.v3i1.485>
- Leba, S.R., Butarbutar, R., & Werang, B.R. (2021). Exploring the English learning strategies of an indigenous Papuan student of Indonesia. *The Qualitative Report*, 26(9), 2745-2768. <https://doi.org/10.46743/2160-3715/2021.4881>
- Liu, H. (2015). Use of learning strategies by EFL learners: A study of how it relates to language proficiency and learner autonomy. *International Journal of English Linguistics*, 5(2), 21-35. <https://ccsenet.org/journal/index.php/ijel/article/view/42980>
- Ma, F. (2021). Causal factors of low achievement in EFL development: Findings from a Chinese university. *Journal of Language Teaching and Research*, 12(1), 57-65. <https://doi.org/10.17507/jltr.1201.06>
- Ma, L., Du, X., Hau, K., & Liu, J. (2017). The association between teacher-student relationship and academic achievement in Chinese EFL context: A serial multiple mediation model. *Educational Psychology*, 38(5), 687-707. <https://doi.org/10.1080/01443410.2017.1412400>
- Macaro, E. (2020). Systematic reviews in applied linguistics. In J. McKinley & H. Rose (Eds.), *The Routledge handbook of research methods in applied linguistics* (pp. 230-239). Abingdon: Routledge.

- Macaro, E., Curle, S., An, J., Pun, J., & Dearden, J. (2017). A systematic review of EMI research. *Language Teaching*. <https://doi.org/10.1017/S0261444817000350>
- Mahmoodi, M.H., & Yousefi, M. (2021). Second language motivation research 2010–2019: A synthetic exploration. *The Language Learning Journal*, 50(3), 276–296. <https://doi.org/10.1080/09571736.2020.1869809>
- Martínez, J.J., Pérez, M.L., Navarrete, J.H., & Paz, S.D. (2015). Language learning strategy use by Spanish EFL students: The effect of proficiency level, gender, and motivation. *Revista de Investigación Educativa*, 34(1), 133–149. <https://doi.org/10.6018/rie.34.1.232981>
- Moher, D., Shamseer, L., & Clarke, M. (2015). Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. *Systematic Reviews*, 4. <https://doi.org/10.1186/2046-4053-4-1>
- Montaño-González, J., & Cancino, M. (2020). Exploring the relationship between language learning strategies and self-efficacy of Chilean university EFL students. *MEXTESOL Journal*, 44, 1-16. [https://www.mextesol.net/journal/index.php?page=journal&id\\_article=19583](https://www.mextesol.net/journal/index.php?page=journal&id_article=19583)
- Nahavandi, N., & Mukundan, J. (2014). EFL learners' beliefs about language learning along gender, further education in language institutes & different proficiency levels. *International Journal of Applied Linguistics & English Literature*, 3(1), 170–179. <https://journals.aiac.org.au/index.php/IJALEL/article/view/1043>
- Nasmilah, N. (2018). Learners' motivational traits and strategic investment in learning through EFL immersion. *Asian EFL Journal*, 20(5), 295–311. [https://www.researchgate.net/publication/325904271\\_Learners'\\_Motivational\\_Traits\\_and\\_Strategic\\_Investment\\_in\\_Learning\\_through\\_EFL\\_Immersion](https://www.researchgate.net/publication/325904271_Learners'_Motivational_Traits_and_Strategic_Investment_in_Learning_through_EFL_Immersion)
- O'Malley, J.M., Chamot, A.U., Stewner-Mazanares, G., Russo, R.P., & Kupper, L. (1985). Learning strategies applications with students of English as a second language. *TESOL Quarterly*, 19(3), 557–584. <https://www.jstor.org/stable/3586278>
- Onah, D.F.O., Pang, E.L.L., & Sinclair, J.E. (2020). Cognitive optimism of distinctive initiatives to foster self-directed and self-regulated learning skills: A comparative analysis of conventional and blended-learning in undergraduate studies. *Education and Information Technologies*, 25, 4365–4380. <https://doi.org/10.1007/s10639-020-10172-w>
- Oxford, R.L. (1990). *Language learning strategies: What every teacher should know*. New York: Newbury House.
- Oxford, R.L. (2011). *Teaching and researching language learning strategies*. Harlow: Longman/Pearson Education.
- Oxford, R.L. (2020). Snapshots in time: Time in Gardner's theory and Gardner's theory across time. In Al-Hoorie, A.H., & MacIntyre, P.D. (Eds.). *Contemporary language motivation theory: 60 years since Gardner and Lambert (1959)*, 171–193. Bristol, UK: Multilingual Matters.
- Phakiti, A., Hirsh, D., & Woodrow, L. (2013). It's not only English: Effects of other individual factors on English language learning and academic learning of ESL international students in Australia. *Journal of Research in International Education*, 12(3), 239–258. <https://doi.org/10.1177/1475240913513520>
- Platsidou, M., Kantaridou, Z., & Papadopoulou, I. (2017). International orientation as predictor of EFL learning strategy use in adolescent students. *Language, Culture and Curriculum*, 30(2), 157–173. <https://doi.org/10.1080/07908318.2016.1236127>
- Rahimi, M., Riazi, A., & Saif, S. (2008). An investigation into the factors affecting the use of language learning strategies by Persian EFL learners. *Canadian Journal of Applied Linguistics*, 11(2), 31–60. <https://journals.lib.unb.ca/index.php/CJAL/article/view/19915>



- Rose, H., Briggs, J. G., Boggs, J. A., Serio, L., & Ivanova-Slavianskaia, N. (2018). A systematic review of language learner strategy research in the face of self-regulation. *System* 72, 151–163. <https://doi.org/10.1016/j.system.2017.12.002>
- Rose, H., & Harbon, L. (2013). Self-regulation in second language learning: An investigation of the Kanji -learning task. *Foreign Language Annals*, 46(1), 96–107. <https://doi.org/10.1111/flan.12011>
- Rubin, J. (1975). What the 'good language learner' can teach us. *TESOL Quarterly*, 9, 41–51. <https://www.jstor.org/stable/3586011>
- Salehi, M., & Jafari, H. (2015). Development and validation of an EFL self-regulated learning questionnaire. *Southern African Linguistics and Applied Language Studies*, 33(1), 63–79. <https://doi.org/10.2989/16073614.2015.1023503>
- Seker, M. (2016). Scenario-based instruction design as a tool to promote self-regulated language learning strategies. *SAGE Open*, 6(4). <https://doi.org/10.1177/2158244016684175>
- Setiyadi, A.B., Mahpul, M.S., & Rahman, B. (2016). Language motivation, metacognitive strategies and language performance: A cause and effect correlation. *International Journal of Applied Linguistics & English Literature*, 5(7), 40–47. <https://www.proquest.com/openview/46bda92fa72caa500215b906df4163bf/1?pq-origsite=gscholar&cbl=3948528>
- Shen, B., & Bai, B. (2022). Chinese university students' self-regulated writing strategy use and EFL writing performance: Influences of self-efficacy, gender, and major. *Applied Linguistics Review*. <https://doi.org/10.1515/applirev-2020-0103>
- Shurovi, M., Yahaya, M.F., Hajimia, H., & Hasan, M.K. (2024). Five decades of achievement motivation research in ELT: A systematic literature review. *Malaysian Journal of Learning and Instruction*, 21(1), 285–318. <https://doi.org/10.32890/mjli2024.21.1.10>
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339. <https://ideas.repec.org/a/eee/jbresa/v104y2019icp333-339.html>
- Stern, H.H. (1975). What can we learn from the good language learner? *Canadian Modern Language Review*, 34, 304–318. <https://doi.org/10.3138/cmlr.31.4.304>
- Su, Y., Zheng, C., Liang, J.-C., & Tsai, C.-C. (2018). Examining the relationship between English language learners' online self-regulation and their self-efficacy. *Australasian Journal of Educational Technology*, 34(3). <https://doi.org/10.14742/ajet.3548>
- Tabatabaei, O., & Arjmand, G. (2013). The relationship of self-regulated learning and motivational learning strategies with intermediate EFL learners' achievement. *Life Science Journal*, 10(1), 177–181. [http://www.lifesciencesite.com/lj/life1001s/028\\_14356life1001s\\_177\\_181.pdf](http://www.lifesciencesite.com/lj/life1001s/028_14356life1001s_177_181.pdf)
- Teng, L.S., & Zhang, L.J. (2016). A questionnaire-based validation of multidimensional models of self-regulated learning strategies. *The Modern Language Journal*, 100(3), 674–701. <https://doi.org/10.1111/modl.12339>
- Thomas, N., Bowen, N.E.J.A., Reynolds, B.L., Osment, C., Pun, J.K.H., & Mikolajewska, A. (2021). A systematic review of the core components of language learning strategy research in Taiwan. *English Teaching and Learning*, 45, 355–374. <https://link.springer.com/article/10.1007/s42321-021-00095-1>
- Thomas, N., & Rose, H. (2019). Do Language Learning strategies need to be self-directed? Disentangling strategies from self-regulated learning. *TESOL Quarterly*, 53(1). <https://doi.org/10.1002/tesq.473>
- Troia, G.A., Shankland, R.K., & Wolbers, K.A. (2012). Motivation research in writing: Theoretical and empirical considerations. *Reading & Writing Quarterly*, 28, 5–28.

- [https://libres.uncg.edu/ir/asu/f/Shankland\\_2012\\_Motivation\\_theoretical\\_ORI\\_G.X.pdf](https://libres.uncg.edu/ir/asu/f/Shankland_2012_Motivation_theoretical_ORI_G.X.pdf)
- Tseng, W.T., Dornyei, Z., & Schmitt, N. (2006). A new approach to assessing strategic Learning: The case of self-regulation in vocabulary acquisition. *Applied Linguistics*, 27(1), 78–102. <https://doi.org/10.1093/applin/ami046>
- Tsuda, A., & Nakata, Y. (2013) Exploring self-regulation in language learning: A study of Japanese high school EFL students. *Innovation in Language Learning and Teaching*, 7(1), 72–88. <https://doi.org/10.1080/17501229.2012.686500>
- Veliz, M. (2012). Language learning strategies (LLSs) and L2 motivations associated with L2 pronunciation development in pre-service teachers of English. *Literatura y Lingüística*, 25, 193–220. <https://doi.org/10.29344/0717621X.25.1552>
- Vonkova, H., Jones, J., Moore, A., Altinkalp, I., & Selcuk, H. (2021). A review of recent research in EFL motivation: Research trends, emerging methodologies, and diversity of researched populations. *System*, 103, 1–12. <https://doi.org/10.1016/j.system.2021.102622>
- Wu, M.M. (2011). Learners' beliefs and the use of metacognitive language-learning strategies of Chinese-speaking ESL learners. *Asian EFL Journal*, 13(2), 307–335. <https://files.eric.ed.gov/fulltext/EJ832902.pdf>
- Yang, N.D. (1999). The relationship between EFL learners' beliefs and learning strategy use. *System*, 27, 515–535. [https://doi.org/10.1016/S0346-251X\(99\)00048-2](https://doi.org/10.1016/S0346-251X(99)00048-2)
- Zhang, L.J., & Xiao, Y.H. (2006). Language learning strategies, motivation and EFL proficiency: A study of Chinese tertiary-level non-English majors. *Asian Englishes*, 9(2), 20–47. <https://doi.org/10.1080/13488678.2006.10801187>
- Zhang, L. J., Thomas, N., & Qin, T. L. (2019). Language learning strategy research in System: Looking back and looking forward. *System*, 84, 87-92. <https://doi.org/10.1016/j.system.2019.06.002>
- Ziegler, N. (2015). The predictive value of the self-regulating capacity in vocabulary learning scale. *Applied Linguistics*, 36(5), 1-9.
- Zimmerman, B. J. (1989). A social cognitive view of self-regulated academic learning. *Journal of Educational Psychology*, 81(3), 329–339. <https://doi.org/10.1037/0022-0663.81.3.329>
- Zimmerman, B., & Risemberg, R. (1997). Becoming a proficient writer: A self-regulatory perspective. *Contemporary Educational Psychology*, 22, 73-101. <http://dx.doi.org/10.1006/ceps.1997.0919>
- Zunder, T. H. (2021). A semi-systematic literature review, identifying research opportunities for more sustainable, receiver-led inbound urban logistics flows to large higher education institutions. *European Transport Research Review*, 1-14. <https://doi.org/10.1186/s12544-021-00487-1>
- Zuniga, C. E., Mayorga, E., & Ruiz, N. (2024). Unlocking practical implications of digital game-based learning in EFL education. *International Journal of Learning, Teaching & Educational Research*, 23(12), 23-37. <https://doi.org/10.26803/ijlter.23.12.2>