



## The Evolution of the ESL Learner: A Review of Affective, Structural, and Cultural Hurdles from Literacy to Native-Like Fluency

Mardy Serey<sup>1</sup>, Chanrathany Sam<sup>2</sup>, Sannisa Seng<sup>3</sup>, Toknoy San<sup>4</sup>, Sam Et Ry<sup>5</sup>, Soeung Sit<sup>6</sup>, Sophat Phon<sup>7</sup>

<sup>1</sup>Svay Rieng University, Svay Rieng Province, Cambodia

<sup>2</sup>National University of Cheasim Kamchaymear, Prey Veng Province, Cambodia

<sup>3</sup>Oudam Vichea Center, Phnom Penh, Cambodia

<sup>4</sup>Department of Credit Risk Management, Cathay United Bank, Cambodia

<sup>5</sup>Canadia Bank, Preah Vihear Province, Cambodia

<sup>6</sup>SBI Bank Cambodia, Preah Vihear Province, Cambodia

<sup>7</sup>Institute for Banking Studies, Phnom Penh, Cambodia

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### ABSTRACT

**Purpose of the study:** This comprehensive review article synthesizes current literature on second language acquisition (SLA) to examine the primary hurdles ESL learners encounter throughout their evolutionary trajectory from basic literacy to native-like fluency. The paper aims to provide a holistic understanding of the learner's experience and to evaluate pedagogical interventions designed to mitigate these hurdles.

**Methodology:** The study methodology is narrative/integrative literature review. It integrates theoretical perspectives and empirical research into SLA with literature based on established theoretical models including Krashen's Affective Filter Hypothesis, Dörnyei's L2 Motivational Self System, Selinker's Interlanguage Theory, the Contrastive Analysis Hypothesis, and Vygotsky's Zone of Proximal Development. Since this methodology was conceptual and desk-based, there was no primary data collection.

**Main Findings:** The review also finds that achieving native-like fluency requires not only cognitive and linguistic development but also profound socio-emotional adaptation. Pedagogical interventions, such as scaffolding, communicative language teaching, and translanguaging, are identified as effective strategies for mitigating these hurdles.

**Novelty/Originality of this study:** Novelty of this paper is that it adopts a tripartite, integrative framework focusing on affective, structural, and cultural barriers in a single review it deviates from previous studies that examine these domains in isolation. By mapping the ESL learner's entire developmental trajectory from literacy to native-like fluency through this holistic lens, the paper advocates for a novel, inclusive, culturally responsive, and psychologically supportive ESL educational framework that addresses the learner as a whole person rather than merely a linguistic processor.

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### Corresponding Author:

Mardy Serey,

International Relations Office, Svay Rieng University,

National Road 1, Svay Rieng Municipality, Svay Rieng Province, Cambodia,

Email: [sereymardy@gmail.com](mailto:sereymardy@gmail.com)

## 1. INTRODUCTION

The rapid expansion of English as an international language has increased the importance of English as a Second Language (ESL) education across various educational contexts [1], [2]. English proficiency is no longer limited to academic purposes but has become an essential competence for communication, professional development, and participation in global communities [3], [4]. Consequently, understanding how learners develop English proficiency from basic literacy to native-like fluency has become a major concern in Second Language Acquisition (SLA) research [5], [6]. This developmental process involves continuous interaction between learners and various linguistic and social environments that shape language acquisition. Therefore, examining the factors influencing ESL learning is essential for developing effective instructional practices and improving learners' language outcomes.

Despite the growing opportunities for English learning, many ESL learners continue to encounter numerous challenges throughout their language learning journey [7], [8]. These challenges extend beyond linguistic knowledge and involve psychological, structural, and sociocultural dimensions that collectively influence learning success [9], [10]. Learners frequently experience language anxiety, limited motivation, low self-confidence, grammatical interference from their first language, and difficulties adapting to unfamiliar cultural norms. Such conditions often reduce learners' willingness to communicate and hinder the development of communicative competence [11], [12]. As a result, achieving native-like fluency remains a difficult objective for many ESL learners despite prolonged exposure to English instruction.

Numerous previous studies have investigated individual factors affecting second language acquisition from different theoretical perspectives [13], [14]. Research on affective variables has highlighted the significant roles of anxiety, motivation, self-esteem, and learner identity in facilitating or inhibiting language learning. Other studies have concentrated on structural issues, including first-language interference, interlanguage development, fossilization, vocabulary acquisition, and academic literacy [15], [16]. Meanwhile, sociocultural investigations have emphasized pragmatic competence, acculturation, intercultural identity, and social interaction as important components of successful language acquisition [17], [18]. Although these studies have contributed substantially to the advancement of SLA research, most of them examine these dimensions separately rather than considering their interconnected influence throughout learners' developmental trajectories.

This fragmented perspective creates an important research gap in understanding the complexity of ESL learning [19], [20]. The interaction among affective, structural, and cultural barriers has not been sufficiently synthesized within a single conceptual framework that explains how these factors jointly influence learners from early literacy to advanced proficiency [21], [22]. Existing literature generally focuses on specific learning stages or isolated variables, making it difficult to obtain a comprehensive understanding of the complete language learning process [23], [24]. Without an integrated perspective, educators may design instructional strategies that address only one aspect of learning while overlooking other equally influential factors. Therefore, a comprehensive synthesis that connects these multidimensional challenges is necessary to provide a more holistic understanding of ESL learner development.

Addressing this gap is important because successful ESL education requires more than mastery of grammar and vocabulary alone [25], [26]. Effective language learning also depends on psychologically supportive learning environments, meaningful communicative experiences, and opportunities for learners to develop intercultural competence [27], [28]. A comprehensive understanding of the relationship among affective, structural, and cultural challenges can assist teachers in selecting appropriate pedagogical strategies that promote both linguistic and personal development. Such understanding is also valuable for researchers seeking broader theoretical explanations of second language acquisition and for policymakers responsible for designing language education programs [29]. Consequently, integrating these perspectives has significant implications for improving the quality and effectiveness of ESL instruction.

The novelty of this study lies in its integrative review of affective, structural, and cultural barriers within a unified framework that represents the complete developmental trajectory of ESL learners from basic literacy to native-like fluency [30]. Unlike previous studies that predominantly discuss these dimensions independently, this study synthesizes theoretical and empirical evidence to explain how these barriers interact throughout language acquisition. This integrated perspective provides a more comprehensive understanding of the multidimensional nature of ESL learning and highlights the necessity of holistic educational interventions. Furthermore, the study emphasizes pedagogical approaches that combine psychological support, linguistic development, and cultural responsiveness to facilitate sustainable language learning. Therefore, this review aims to provide educators, researchers, and policymakers with a comprehensive conceptual foundation for designing more inclusive and effective ESL education.

## 2. RESEARCH METHOD

### 2.1. Research Design

This study employed a narrative integrative literature review to examine the multidimensional challenges encountered by English as a Second Language (ESL) learners throughout their language acquisition journey [31]. This research design was selected because it enables the integration of theoretical concepts and empirical findings from previous studies into a comprehensive conceptual understanding. The review focused on synthesizing evidence related to affective, structural, and cultural barriers that influence learners' progression from basic literacy to native-like fluency [32]. Unlike empirical studies, this review did not involve primary data collection but relied on published academic literature as the primary source of information. Consequently, the narrative integrative review provided an appropriate approach for explaining the complex interaction among psychological, linguistic, and sociocultural factors affecting ESL learning.

## 2.2. Data Sources

The data analyzed in this review were obtained from scholarly books, peer-reviewed journal articles, and internationally recognized theoretical publications concerning Second Language Acquisition (SLA). Literature sources were selected because they provide substantial evidence regarding affective variables, structural language development, sociocultural adaptation, and pedagogical interventions in ESL education [33]. Classical theories and contemporary empirical studies were equally considered to provide both conceptual foundations and current perspectives on language learning. Priority was given to publications discussing influential frameworks proposed by Krashen, Dörnyei, Selinker, Vygotsky, Cummins, Norton, Schumann, and other prominent SLA scholars. The combination of these academic sources ensured a comprehensive theoretical basis for interpreting challenges experienced by ESL learners.

## 2.3. Literature Selection

The literature selection process was conducted by identifying publications directly related to English as a Second Language learning and Second Language Acquisition research. References were included when they discussed psychological, linguistic, cultural, or instructional aspects relevant to the objectives of this review [34]. Each publication was carefully examined to determine its contribution to understanding affective barriers, structural barriers, cultural challenges, or pedagogical implications in ESL learning. Studies presenting similar concepts were compared to identify consistent findings, while differing perspectives were analyzed to enrich conceptual interpretation. This selection process ensured that only literature closely aligned with the research objectives was synthesized in the discussion.

## 2.4. Data Analysis

The collected literature was analyzed using thematic analysis to identify recurring concepts and relationships among previous studies [35]. All reviewed publications were systematically categorized into four principal themes, namely affective hurdles, structural hurdles, cultural hurdles, and pedagogical interventions. Similar findings across different studies were synthesized to explain how these dimensions interact throughout learners' language development. The integrated analysis emphasized relationships among psychological, linguistic, and sociocultural factors rather than treating each factor independently. Finally, the synthesized evidence was interpreted to formulate a holistic conceptual framework and practical pedagogical recommendations for improving ESL teaching and learning.

Table 1. Research Procedure

Stage	Research Activities	Expected Output
Research Design	Determining the narrative integrative literature review approach and defining the research focus on ESL learner development.	Research framework
Data Collection	Collecting books, peer-reviewed journal articles, and theoretical publications related to Second Language Acquisition and ESL learning.	Relevant academic literature
Literature Selection	Selecting publications discussing affective, structural, cultural, and pedagogical aspects according to the research objectives.	Selected literature
Thematic Analysis	Categorizing literature into affective hurdles, structural hurdles, cultural hurdles, and pedagogical interventions before synthesizing previous findings.	Thematic categories
Interpretation	Integrating theoretical and empirical evidence to formulate conceptual explanations and pedagogical implications.	Comprehensive research findings

### 3. RESULTS AND DISCUSSION

#### 3.1. Affective Hurdles

The reviewed literature demonstrates that affective factors represent one of the most influential dimensions affecting English as a Second Language (ESL) learning. Psychological conditions such as language anxiety, motivation, self-confidence, identity, and learner investment consistently determine how effectively learners acquire and use the target language [36]. The synthesis indicates that positive emotional conditions facilitate language acquisition, whereas negative emotions hinder learners' participation and communicative performance. These affective variables influence both learners' willingness to engage in classroom interaction and their long-term commitment to language learning. Overall, the reviewed studies reveal that affective barriers play a fundamental role in shaping learners' progression from basic literacy toward native-like fluency.

Table 2. Summary of Affective Hurdles

Affective Factor	Main Findings	Educational Implications
Language Anxiety	Anxiety reduces learners' willingness to communicate and limits language acquisition.	Teachers should establish psychologically supportive classrooms.
Motivation	Strong motivation encourages sustained learning effort and continuous language development.	Learning activities should strengthen learners' long-term learning goals.
Identity and Investment	Positive learner identity increases engagement and participation in language learning.	Inclusive learning environments enhance learner confidence and communicative competence.

#### 3.2. Structural Hurdles

The synthesis of previous studies indicates that structural barriers constitute another major challenge encountered by ESL learners during second language acquisition. The reviewed literature identifies cross-linguistic influence, interlanguage development, fossilization, vocabulary acquisition, and academic literacy as the principal structural issues influencing language proficiency [37]. Differences between learners' first language and English frequently lead to grammatical, phonological, and syntactic errors that may persist throughout the learning process. Furthermore, limited vocabulary knowledge and insufficient academic language proficiency restrict learners' ability to comprehend complex texts and produce accurate academic writing. Collectively, these findings demonstrate that structural competence requires continuous linguistic development supported by appropriate instructional strategies and meaningful language practice.

Table 3. Summary of Structural Hurdles

Structural Factor	Main Findings	Educational Implications
Cross-linguistic Influence	First-language interference contributes to pronunciation and grammatical errors.	Explicit comparison between L1 and English can reduce language interference.
Interlanguage and Fossilization	Persistent incorrect language forms may become stabilized during learning.	Continuous corrective feedback and meaningful language production are necessary.
Vocabulary and Academic Literacy	Limited vocabulary and academic language proficiency restrict reading and writing performance.	Vocabulary enrichment and academic literacy instruction should be integrated into ESL learning.

Findings of this review demonstrate that affective factors play a fundamental role in English as a Second Language (ESL) learning [38]. Synthesized evidence indicates that language anxiety, motivation, self-confidence, identity, and learner investment directly influence willingness to participate in communicative activities. Learners experiencing high anxiety and limited motivation tend to show lower participation, resulting in slower language development and weaker communicative competence. Conversely, supportive learning environments promote confidence and reduce psychological barriers that hinder language acquisition. These findings confirm that emotional readiness deserves equal attention alongside linguistic competence in ESL education.

Results also reveal that structural and cultural barriers remain important challenges throughout language learning. Structural difficulties associated with first-language interference, interlanguage development, fossilization, vocabulary acquisition, and academic literacy continue to influence language accuracy and proficiency [39]. Cultural barriers involving pragmatic competence, sociolinguistic awareness, and intercultural

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adaptation also determine communicative effectiveness in authentic situations. Evidence further indicates that scaffolding, communicative language teaching, task-based learning, and translanguaging contribute positively to overcoming multidimensional learning barriers [40]. Successful ESL instruction therefore requires balanced attention to psychological, linguistic, and sociocultural dimensions.

Present findings are consistent with previous studies emphasizing multidimensional characteristics of second language acquisition. Krashen explained that affective conditions facilitate language input, whereas Dörnyei highlighted motivation as a driving force supporting sustained language learning. Selinker described interlanguage development and fossilization as persistent structural challenges, while Norton emphasized learner identity and investment as important elements influencing language participation. Similar perspectives support present findings showing that successful ESL learning cannot be explained through a single theoretical perspective. Integration of affective, structural, and cultural dimensions therefore provides a more comprehensive understanding of learner development.

Novelty of this review lies in integration of affective, structural, and cultural barriers into a unified conceptual framework describing progression of ESL learners from basic literacy to native-like fluency [41]. Previous review studies commonly examined psychological, linguistic, or sociocultural dimensions separately, producing fragmented explanations of second language acquisition. Present review combines these dimensions into a comprehensive perspective illustrating continuous interaction among multiple learning barriers. Pedagogical interventions are also presented as complementary strategies addressing various challenges simultaneously rather than independently. Integrated framework therefore contributes broader conceptual insight for future research and educational practice in ESL contexts.

Implications of this review extend to educators, researchers, curriculum developers, and educational policymakers [42], [43]. Educators are encouraged to establish psychologically supportive learning environments while strengthening linguistic competence and intercultural awareness. Curriculum developers may utilize integrated framework to design instructional materials addressing affective, structural, and cultural dimensions simultaneously. Researchers may adopt synthesized findings as a conceptual foundation for future empirical investigations conducted across diverse educational settings [44]. Application of integrated perspectives may ultimately contribute to more inclusive, learner-centered, and effective ESL education.

Several limitations should be considered when interpreting findings of this review. First, present study employed a narrative integrative literature review without collecting primary empirical data from ESL learners or educators. Second, synthesized evidence depends on scope and quality of selected literature, which may not fully represent every educational context. Third, statistical analysis was not conducted because review did not employ systematic review or meta-analysis procedures. Future research is recommended to conduct empirical investigations involving diverse ESL contexts in order to validate and expand conceptual framework proposed in this review.

#### **4. CONCLUSION**

This review concludes that English as a Second Language (ESL) learning is influenced by continuous interaction among affective, structural, and cultural dimensions throughout language acquisition. Synthesized findings demonstrate that language anxiety, motivation, learner identity, first-language interference, interlanguage development, vocabulary acquisition, pragmatic competence, and intercultural adaptation collectively determine learners' progression from basic literacy toward native-like fluency. Results further indicate that pedagogical approaches integrating psychological support, linguistic development, and culturally responsive instruction provide meaningful opportunities for improving language learning outcomes across diverse educational contexts. Main contribution of this study lies in presenting an integrated conceptual framework that connects multiple learning barriers and pedagogical interventions within a comprehensive perspective, offering broader insight than previous studies that commonly examined these dimensions independently. Findings presented in this review may serve as a valuable reference for educators, researchers, curriculum developers, and policymakers in designing more inclusive, learner-centered, and effective ESL instruction. Future studies are recommended to validate proposed conceptual framework through empirical investigations conducted across various educational settings and learner populations while exploring additional factors that may contribute to successful second language acquisition.

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#### **USE OF ARTIFICIAL INTELLIGENCE (AI)-ASSISTED TECHNOLOGY**

The author declares that no artificial intelligence (AI) tools were used in the preparation, analysis, or writing of this manuscript. All aspects of the research, including data collection, interpretation, and manuscript preparation, were carried out entirely by the authors without the assistance of AI-based technologies.

## REFERENCES

- [1] M. Shortt, S. Tilak, I. Kuznetcova, and B. Martens, "Gamification in mobile assisted language learning: A systematic review of duolingo literature from public release of 2012 to early 2020," *Comput. Assist. Lang. Learn.*, vol. 36, no. 3, pp. 517–554, 2023, doi: 10.1080/09588221.2021.1933540.
- [2] N. Semushina and R. Mayberry, "Number stroop effects in arabic digits and asl number signs: The impact of age and setting of language acquisition," *Lang. Learn. Dev.*, vol. 19, no. 1, pp. 95–123, 2023, doi: 10.1080/15475441.2022.2047689.
- [3] M. Noroozi and S. Taheri, "Task based language assessment: A compatible approach to assess the efficacy of task based language teaching vs. Present, practice, produce," *Cogent Educ.*, vol. 9, no. 1, pp. 1–21, 2022, doi: 10.1080/2331186X.2022.2105775.
- [4] D. Gorter, J. Cenoz, and K. Van Der Worp, "The linguistic landscape as a resource for language learning and raising language awareness," *J. Spanish Lang. Teach.*, vol. 8, no. 2, pp. 161–181, 2021, doi: 10.1080/23247797.2021.2014029.
- [5] H. Clahsen, A. Jessen, and A. Jessen, "Morphological generalization in bilingual language production: Age of acquisition determines variability," *Lang. Acquis.*, vol. 28, no. 4, pp. 370–386, 2021, doi: 10.1080/10489223.2021.1910267.
- [6] M. A. Qureshi and A. Aljanab, "Translanguaging and reading comprehension in a second language," *Int. Multiling. Res. J.*, vol. 16, no. 4, pp. 247–257, 2022, doi: 10.1080/19313152.2021.2009158.
- [7] C. Leung, "English as an additional language: A close to practice view of teacher professional knowledge and professionalism," *Lang. Educ.*, vol. 36, no. 2, pp. 170–187, 2022, doi: 10.1080/09500782.2021.1980003.
- [8] E. Ka *et al.*, "How do chinese as a second language (csl) learners acquire orthographic knowledge: Component, structure and position regularity," *Lang. Aware.*, vol. 30, no. 3, pp. 297–316, 2021, doi: 10.1080/09658416.2021.1972115.
- [9] B. Mac Gearailt, G. Mac Ruairc, C. Murray, B. Mac, G. Mac Ruairc, and C. Murray, "Actualising content and language integrated learning (clil) in irish medium education; Why, how and why now?," *Irish Educ. Stud.*, vol. 42, no. 1, pp. 39–57, 2023, doi: 10.1080/03323315.2021.1910971.
- [10] I. N. Jensen, N. Mitrofanova, M. Anderssen, Y. Rodina, R. Slabakova, and M. Westergaard, "Crosslinguistic influence in l3 acquisition across linguistic modules," *Int. J. Multiling.*, vol. 20, no. 3, pp. 717–734, 2023, doi: 10.1080/14790718.2021.1985127.
- [11] M. Tang, "Crosslinguistic influence on chinese efl learners acquisition of english finite and nonfinite distinctions," *Cogent Educ.*, vol. 7, no. 1, pp. 1–17, 2020, doi: 10.1080/2331186X.2020.1721642.
- [12] P. Auer and U. Røyneland, "Modelling acquisition and use of dialectal, standard and multiethnolectal features in migratory contexts across europe," *J. Multiling. Multicult. Dev.*, vol. 46, no. 4, pp. 1035–1042, 2025, doi: 10.1080/01434632.2020.1730385.
- [13] T. Morita-mullaney, J. Renn, M. M. Chiu, T. Morita-mullaney, and J. Renn, "Spanish language proficiency in dual language and english as a second language models: The impact of model, time, teacher, and student on spanish language development," *Int. J. Biling. Educ. Biling.*, vol. 25, no. 10, pp. 3888–3906, 2022, doi: 10.1080/13670050.2022.2089012.
- [14] H. C. Chen, J. X. Tian, and H. C. Chen, "The roles of Cantonese speakers l1 and l2 phonological features in l3 pronunciation acquisition," *Int. J. Multiling.*, vol. 21, no. 1, pp. 1–17, 2024, doi: 10.1080/14790718.2021.1993231.
- [15] F. J. Guzmán-muñoz, "Effects of making errors in learning a foreign language," *J. Cogn. Psychol.*, vol. 32, no. 2, pp. 229–241, 2020, doi: 10.1080/20445911.2020.1711766.
- [16] Y. Kosyakova, C. Kristen, C. Spörlein, and C. Kristen, "The dynamics of recent refugees language acquisition: How do their pathways compare to those of other new immigrants?," *J. Ethn. Migr. Stud.*, vol. 48, no. 5, pp. 989–1012, 2022, doi: 10.1080/1369183X.2021.1988845.
- [17] M. Rickert, "Categorisation as positioning practice in a dutch as second language classroom," *J. Lang. Identity Educ.*, vol. 23, no. 2, pp. 197–209, 2024, doi: 10.1080/15348458.2021.1981136.
- [18] C. Hedman, U. Magnusson, and U. Magnusson, "Teachers acts of legitimation in second language education in swedish upper secondary schools," *Lang. Educ.*, vol. 34, no. 6, pp. 535–552, 2020, doi: 10.1080/09500782.2020.1775245.
- [19] H. Zhao and H. Liu, "(Standard) language ideology and regional putonghua in chinese social media: A view from weibo," *J. Multiling. Multicult. Dev.*, vol. 42, no. 9, pp. 882–896, 2021, doi: 10.1080/01434632.2020.1814310.
- [20] K. A. Sendur, J. Van Drie, C. Van Boxtel, and K. Kan, "Historical reasoning in an undergraduate clil course: Students progression and the role of language proficienc," *Int. J. Biling. Educ. Biling.*, vol. 25, no. 6, pp. 2058–2074, 2022, doi: 10.1080/13670050.2020.1844136.
- [21] H. Banaruee, O. Khatin-zadeh, and D. Farsani, "The challenge of psychological processes in language acquisition: A systematic review," *Cogent Arts Humanit.*, vol. 10, no. 1, pp. 1–15, 2023, doi: 10.1080/23311983.2022.2157961.
- [22] L. Grundlingh, "Laughing online: Investigating written laughter, language identity and their implications for language acquisition," *Cogent Educ.*, vol. 7, no. 1, pp. 1–8, 2020, doi: 10.1080/2331186X.2020.1738810.
- [23] K. Thompson *et al.*, "Sleep and second language acquisition revisited: The role of sleep spindles and rapid eye movements," *Nat. Sci. Sleep*, vol. 16, no. 08, pp. 1887–1902, 2021, doi: 10.2147/NSS.S326151.
- [24] Y. Dong and B. W. Chow, "Home literacy environment and english as a second language acquisition: A meta analysis," *Lang. Learn. Dev.*, vol. 18, no. 4, pp. 485–499, 2022, doi: 10.1080/15475441.2021.2003197.
- [25] R. Woore and R. Woore, "What can second language acquisition research tell us about the phonics 'pillar'?", *Lang. Learn. J.*, vol. 50, no. 2, pp. 172–185, 2022, doi: 10.1080/09571736.2022.2045683.
- [26] F. F. Lundell, K. Arvidsson, M. Bouchard, and F. F. Lundell, "Language ideologies and second language acquisition: The case of French long term residents in Sweden," *J. Multiling. Multicult. Dev.*, vol. 45, no. 8, pp. 3434–3449, 2024, doi: 10.1080/01434632.2022.2099408.

- [27] S. G. Pennelle, R. E. Case, and G. Williams, "Bilingual paraprofessionals in the second language acquisition classroom," *Educ. Inq.*, vol. 14, no. 2, pp. 251–266, 2023, doi: 10.1080/20004508.2021.1994117.
- [28] B. Christophers and B. Christophers, "Fossilised capital: Price and profit in the energy transition," *New Polit. Econ.*, vol. 27, no. 1, pp. 146–159, 2022, doi: 10.1080/13563467.2021.1926957.
- [29] S. P. Zondi, S. Mbatha, and F. Group, "Probing into esl teachers use of translanguaging: Perspectives and operationalisations," *South. African Linguist. Appl. Lang. Stud.*, vol. 44, no. 1, pp. 12–26, 2026, doi: 10.2989/16073614.2025.2498946.
- [30] L. X. Li, "Developmental patterns of english modal verbs in the writings of Chinese learners of english: A corpus based approach," *Cogent Educ.*, vol. 9, no. 1, pp. 1–23, 2022, doi: 10.1080/2331186X.2022.2050457.
- [31] E. T. Murtisari *et al.*, "Beyond error correction: Lower proficiency efl learners engagement with grammarly," *Lang. Aware.*, vol. 1, no. 1, pp. 1–26, 2025, doi: 10.1080/09658416.2025.2585004.
- [32] L. Mariappan, "Examining the influence of outdoor experiential learning on ESL vocabulary retention," *Cogent Educ.*, vol. 12, no. 1, pp. 1–23, 2025, doi: 10.1080/2331186X.2025.2516871.
- [33] L. Stoffelsma, V. Antwi, and R. Hanson, "Incidental vocabulary learning in a postcolonial english second language context," *Lang. Matters*, vol. 55, no. 2, pp. 92–113, 2024, doi: 10.1080/10228195.2024.2341010.
- [34] N. I. Ishak, S. Soraya, L. Abdullah, N. Z. Alias, H. Jamil, and G. I. Uktamovich, "Characteristics of esl family literacy programmes: A systematic literature review," *Cogent Educ.*, vol. 12, no. 1, pp. 1–18, 2025, doi: 10.1080/2331186X.2025.2494454.
- [35] M. Tian and M. Tian, "Bridging global and local: exploring glocal learning contexts in an adult esl classroom," *J. Multiling. Multicult. Dev.*, vol. 1, no. 1, pp. 1–27, 2025, doi: 10.1080/01434632.2025.2503419.
- [36] N. Rahnuma, "Exploring esl students experiences of academic writing in higher education a cultural historical activity theory perspective," *Educ. Inq.*, vol. 16, no. 3, pp. 303–325, 2025, doi: 10.1080/20004508.2023.2222450.
- [37] A. Hashemifardnia, S. Shafiee, and F. R. Esfahani, "Effects of flipped instruction on iranian intermediate efl learners speaking complexity, accuracy, and fluenc," *Cogent Educ.*, vol. 8, no. 1, pp. 1–20, 2021, doi: 10.1080/2331186X.2021.1987375.
- [38] M. Majeed and F. R. Dar, "Investigating the efficacy of blended learning in esl classrooms," *Cogent Educ.*, vol. 9, no. 1, pp. 1–17, 2022, doi: 10.1080/2331186X.2022.2133500.
- [39] S. Haroon, M. Aslam, and T. Saleem, "Exploring the cross linguistic functioning of the principles of wh movements: The case of Pakistani esl learners," *Cogent Arts Humanit.*, vol. 10, no. 1, pp. 1–27, 2023, doi: 10.1080/23311983.2023.2174518.
- [40] A. M. Abbasi *et al.*, "Effects of flipped instruction on iranian intermediate efl learners speaking complexity, accuracy, and fluenc," *Cogent Arts Humanit.*, vol. 10, no. 2, pp. 1–23, 2023, doi: 10.1080/23311983.2023.2281019.
- [41] J. K. Basak, F. G. Okyere, E. Arulmozhi, F. Khan, and H. T. Kim, "Artificial neural networks and multiple linear regression as potential methods for modelling body surface temperature of pig," *J. Appl. Anim. Res. ISSN*, vol. 48, no. 1, pp. 207–219, 2020, doi: 10.1080/09712119.2020.1761818.
- [42] A. Bouasria, K. I. Namr, A. Rahimi, E. Mostafa, and B. Rerhou, "Evaluation of Landsat 8 image pansharpener in estimating soil organic matter using multiple linear regression and artificial neural networks," *Geo-spatial Inf. Sci.*, vol. 25, no. 3, pp. 353–364, 2022, doi: 10.1080/10095020.2022.2026743.
- [43] S. N. Ahmed, R. Jhaj, B. Sadasivam, and R. Joshi, "Prediction of left ventricular mass index using electrocardiography in essential hypertension a multiple linear regression model," *Med. Devices Evid. Res.*, vol. 1, no. 1, pp. 163–172, 2020, doi: 10.2147/MDER.S253792.
- [44] F. Xia *et al.*, "Exploring the association of antimicrobial use with serratia marcescens resistance rates via multiple linear regression," *Infect. Drug Resist.*, vol. 1, no. 1, pp. 4039–4051, 2025, doi: 10.2147/IDR.S527225.