

Peer Mentoring in the Saudi EFL Context: Exploring Students' Views on Learning Effectiveness

Farhan Ahmad¹, Sohaib Alam¹, Martina Pavlikova², Yulia Nickolaevna Biryukova³

¹ Department of English Language and Literature, College of Sciences and Humanities, Prince Sattam Bin Abdulaziz University, Alkharij, Kingdom of Saudi Arabia

² Department of Journalism, Faculty of Arts, Constantine the Philosopher University in Nitra, Slovakia

³ Russian Language Department, Peoples' Friendship University of Russia (RUDN University), Miklukho-Maklaya 6, 117198 Moscow, Russia

Correspondence: Farhan Ahmad, Department of English Language and Literature, College of Sciences and Humanities, Prince Sattam Bin Abdulaziz University, Alkharij, Kingdom of Saudi Arabia. E-mail: f.ahmad@psau.edu.sa

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Abstract

Peer mentoring has increasingly been recognized as a valuable pedagogical approach in English as a Foreign Language (EFL) context, particularly for enhancing student engagement and collaborative learning. The present study aims to examine Saudi EFL students' perceptions of the effectiveness of peer mentoring in supporting language learning outcomes. To achieve this objective, a quantitative research design was employed, utilizing a structured Likert-scale questionnaire administered to 261 EFL students at Prince Sattam Bin Abdulaziz University. The collected data were analyzed using descriptive statistical methods, including frequencies and percentages, to identify patterns in students' responses across key dimensions such as learning effectiveness, engagement, collaboration, and language skill development. The findings reveal that a majority of students hold positive perceptions of peer mentoring, particularly regarding increased engagement, improved collaborative learning, and enhanced confidence in language use. However, a notable proportion of neutral responses suggests variability in students' experiences and indicates that the effectiveness of peer mentoring may depend on factors such as implementation quality and learner familiarity. Overall, the results highlight the pedagogical potential of peer mentoring as a complementary strategy to traditional teacher-centered instruction in Saudi EFL classrooms. The study underscores the importance of structured implementation and outlines implications for integrating peer mentoring practices to support more interactive, learner-centered language learning environments.

Keywords: Peer mentoring, EFL learning, student perceptions, collaborative learning, language development, SDG-4

1. Introduction

With the increasing emphasis on student-centered learning in higher education, instructors are continuously exploring effective approaches to enhance language learning and student engagement in English as a Foreign Language (EFL) context. Learners, particularly in environments where exposure to authentic language use is limited, require interactive and supportive learning opportunities that extend beyond traditional teacher-led instruction (Kobylarek, Madej & Roubalova, 2022). Among the various pedagogical strategies adopted to address these challenges, peer mentoring has emerged as a promising approach that facilitates collaborative learning and mutual academic support. Through structured peer interaction, students can exchange knowledge, clarify concepts, and actively participate in the learning process, thereby contributing to improved language development and learner autonomy (Dominguez & Hager, 2013; Wangdi & Shimray, 2025; Usama et al., 2024a; Beg et al., 2025).

Language learning in many EFL contexts, including Saudi Arabia, has traditionally relied on teacher-centered instructional models, where learners play a relatively passive role in the classroom. Such approaches often limit opportunities for meaningful interaction, which is essential for developing communicative competence and higher-order language skills (Kobylarek, Plavčan & Amini Golestani, 2021; Alam et al., 2026c). Previous research has highlighted that reliance on conventional teaching methods can lead to reduced motivation, limited engagement, and insufficient practice in real communicative contexts (Almutairi, 2023; Alnasser & Alyousef, 2015). Furthermore, learners' experiences and outcomes may vary due to factors such as proficiency levels, cultural expectations, and classroom dynamics, which influence how students engage with instructional practices (Alqurashi, 2015). These limitations underscore the need for pedagogical approaches that promote collaboration, interaction, and learner involvement in the language learning process.

In response to these challenges, peer mentoring has gained increasing recognition as an effective alternative that aligns with sociocultural and constructivist theories of learning. This approach emphasizes reciprocal interaction, shared responsibility, and continuous support among learners, enabling them to co-construct knowledge and develop confidence in language use (Kobylarek & Wotus, 2011). Empirical studies have demonstrated that peer-based learning strategies can enhance motivation, foster engagement, and improve academic

performance in EFL settings (Terrior & Leonard, 2010; Chopra, 2025; Hayman et al., 2022; Carvalho & Santos, 2022). However, despite its potential benefits, much of the existing research has focused on related practices such as peer feedback, peer assessment, and cooperative learning, rather than examining peer mentoring as a distinct and sustained pedagogical framework. Additionally, limited attention has been given to students' perceptions of peer mentoring, particularly within the Saudi EFL context, where cultural and educational norms may influence learners' acceptance of peer-based approaches.

Therefore, the present study seeks to investigate Saudi EFL students' perceptions of the effectiveness of peer mentoring in enhancing language learning outcomes, engagement, and collaborative practices. By focusing on learners' perspectives, the study aims to provide empirical insights into how peer mentoring is experienced within the Saudi educational context and to identify its perceived benefits and challenges. In doing so, the research addresses an existing gap in the literature and offers implications for implementing structured peer mentoring practices in EFL classrooms. Accordingly, the study is guided by the following research questions:

- 1) What are Saudi EFL students' perceptions of the effectiveness of peer mentoring in language learning?
- 2) How do students perceive the role of peer mentoring in enhancing engagement and motivation?
- 3) To what extent do students believe that peer mentoring supports the development of language skills (e.g., speaking, listening, grammar, and vocabulary)?
- 4) How do students evaluate peer mentoring in comparison to traditional teacher-centered approaches?
- 5) What challenges or limitations do students perceive in the implementation of peer mentoring in Saudi EFL classrooms?

2. Literature Review

2.1 Peer Mentoring Framework in EFL

Peer mentoring, as conceptualized by McDougall et al. (1997), is a collaborative pedagogical approach that can be used to examine and enhance EFL learners' language development through reciprocal interaction and shared learning experiences. McDougall et al. emphasized the significance of peer mentoring as a non-hierarchical learning relationship, whereas Dominguez and Hager (2013) further elaborated on it as a developmental and relational process that reflects learners' evolving knowledge through continuous interaction and contextual engagement. It is widely acknowledged that peer mentoring provides a structured framework for instructors and curriculum designers to foster interactive and student-centered learning environments. In particular, peer mentoring enables teachers to observe learners' communicative patterns, identify their current language competence, and use these interactions as a basis for designing pedagogical interventions. For instance, following the perspective of Dominguez and Hager (2013), teachers can examine learners' collaborative behaviors, understand their developmental progression, and use peer interaction as a learning tool to enhance language proficiency. In this sense, peer mentoring not only supports language acquisition but also functions as a diagnostic mechanism for identifying learners' strengths and weaknesses, thereby informing instructional design and curriculum development. Moreover, the reciprocal nature of peer mentoring encourages learners to assume both supportive and reflective roles, which further strengthens their engagement and responsibility in the learning process.

Previous researchers (e.g., Richards, 1974; Richards & Schmidt, 2002) have categorized peer-based instructional strategies into various forms, including peer feedback, peer assessment, cooperative learning, and peer tutoring. Each of these approaches contributes to language learning in distinct ways, yet they differ in scope, duration, and pedagogical focus. Topping (1998) describes peer feedback as a process of exchanging evaluative comments on learners' performance, particularly in writing tasks, whereas peer assessment focuses on learners' ability to judge and score each other's work against predefined criteria. Similarly, cooperative learning, as outlined by Johnson and Johnson (1999), involves structured group activities aimed at achieving shared academic goals, often within limited timeframes. However, peer mentoring differs fundamentally from these approaches in that it emphasizes sustained interaction, mutual support, and long-term developmental engagement. Dominguez and Hager (2013) argue that peer mentoring extends beyond task-specific interaction by fostering continuous academic and personal growth through ongoing relationships. This distinction is essential for conceptual clarity, as it positions peer mentoring as a comprehensive pedagogical framework rather than a discrete instructional technique. Furthermore, empirical studies (e.g., Everhard, 2015; Hill et al., 2022) have demonstrated that peer mentoring enhances learners' confidence, motivation, and sense of belonging, thereby contributing to a more supportive and engaging learning environment. In addition, peer mentoring facilitates the development of interpersonal skills, such as communication and collaboration, which are essential for effective language learning.

The theoretical foundations of peer mentoring are closely aligned with sociocultural and constructivist perspectives on learning, which emphasize the role of social interaction in knowledge construction and language acquisition. Vygotsky (1978) highlighted the importance of interaction and scaffolding in facilitating cognitive development, suggesting that learners can achieve higher levels of understanding through collaborative engagement. Similarly, Dornyei (1997) emphasized the role of group dynamics and motivation in language learning, indicating that collaborative environments can significantly enhance learner engagement and performance. Within this theoretical framework, peer mentoring enables learners to co-construct knowledge, negotiate meaning, and develop communicative competence through sustained interaction. Empirical research supports this perspective, demonstrating that peer-based learning approaches improve motivation, engagement, and academic performance in EFL contexts (Chopra, 2025; Everhard, 2015; Hill et al., 2022). Moreover, peer mentoring facilitates the development of higher-order skills such as critical thinking, problem-solving, and self-regulation, which are

essential for effective language learning. These skills not only enhance learners' academic performance but also prepare them for lifelong learning and independent language use. By integrating theoretical principles with pedagogical practice, peer mentoring offers a robust framework for enhancing both linguistic and cognitive development in EFL learners (Shams et al., 2025b).

Collaborative learning approaches have expanded significantly as the emphasis on student-centered pedagogy has grown in modern educational contexts (Diputra & all, 2025). In EFL classrooms, where learners often face limited exposure to authentic language use, peer mentoring offers a valuable opportunity for meaningful interaction and language practice (Alam, 2025a; Akhtar et al., 2025). Research indicates that collaborative learning environments enable learners to actively engage in communication, thereby improving fluency, accuracy, and overall language competence (Wangdi & Shimray, 2025). Additionally, peer mentoring has been associated with increased learner autonomy, as students take greater responsibility for their learning and develop self-regulated learning strategies (Everhard, 2015). In EFL contexts such as Saudi Arabia, where traditional instructional practices often emphasize teacher authority and rote learning, integrating peer mentoring represents a significant shift toward more interactive, learner-centered approaches (Alam, 2025b; Amir et al., 2025a). However, the effectiveness of peer mentoring is influenced by various contextual factors, including learners' proficiency levels, cultural norms, and the quality of implementation (Alqurashi, 2015; Almutairi, 2023). These factors highlight the importance of designing peer mentoring programs that are culturally responsive and pedagogically sound. Furthermore, institutional support and teacher facilitation are crucial to ensuring that peer mentoring is effectively integrated into classroom practices.

Feedback constitutes a central component of peer mentoring, as it plays a crucial role in facilitating language learning and skill development. Chen (2021) emphasized that feedback is a fundamental aspect of second language instruction, providing learners with information about their performance and guiding their learning processes. In peer mentoring contexts, feedback is often more immediate and interactive, allowing learners to engage in dialogue and clarify their understanding. Ranalli (2018) highlighted the importance of explicit feedback, which enables learners to identify errors, understand language structures, and improve their writing and speaking skills. Studies have shown that peer feedback not only enhances linguistic accuracy but also promotes learner autonomy and reflective learning (Alshammari, 2016; Al-Khresheh et al., 2025). Furthermore, the collaborative nature of peer mentoring encourages learners to take an active role in providing and receiving feedback, thereby strengthening their analytical and evaluative skills. This interactive feedback process contributes to a deeper understanding of language and fosters a supportive learning environment in which learners feel comfortable expressing their ideas and seeking assistance (Alam et al., 2026a). Additionally, effective feedback within peer mentoring contexts can enhance learners' confidence and motivation, further reinforcing the benefits of collaborative learning.

2.2 Background of Peer Mentoring in EFL

According to Dominguez and Hager (2013), peer mentoring is a structured yet flexible pedagogical approach in which learners support each other's academic and personal development through sustained interaction and collaboration. This approach integrates multiple dimensions of learning, including cognitive, social, and affective components, thereby providing a comprehensive framework for language education. In modern EFL contexts, peer mentoring is increasingly associated with evaluating various aspects of learning, including engagement, motivation, language proficiency, collaboration, and confidence. These dimensions highlight the multifaceted nature of peer mentoring and its potential to enhance overall learning outcomes. By facilitating continuous interaction among learners, peer mentoring creates opportunities for meaningful communication and knowledge exchange, which are essential for language acquisition. Furthermore, it encourages learners to develop interpersonal relationships that support both academic and emotional growth.

Peer mentoring has been the focus of numerous empirical studies in recent years, with researchers highlighting its effectiveness in improving learners' engagement, motivation, and academic performance (Alam et al., 2026c). For instance, Chopra (2015) and Everhard (2015) found that peer mentoring encourages active participation and enhances learners' confidence in using the target language. Similarly, studies by Washington-Nortey (2022) and Wangdi and Shimray (2025) demonstrate that peer interaction contributes to the development of language skills, including speaking, listening, grammar, and vocabulary. These findings suggest that peer mentoring not only supports linguistic development but also fosters positive attitudes toward learning. Additionally, peer mentoring has been shown to promote learner autonomy, as students take responsibility for their learning and develop self-regulated strategies (Everhard, 2015). Other studies have examined peer mentoring in comparison to traditional instructional approaches, indicating that peer-based learning strategies can complement teacher-centered methods and enhance overall learning outcomes (Alsanie & Sabir, 2019; Almutairi, 2023). Moreover, peer mentoring has been linked to improved classroom dynamics, as it encourages collaboration and reduces anxiety among learners.

Despite its advantages, peer mentoring has also been associated with certain limitations that may affect its effectiveness in EFL contexts. Research indicates that peer mentoring success depends on factors such as the quality of interaction, learners' proficiency levels, and the level of guidance provided by instructors (Alqurashi, 2015; Usama et al., 2024b). In some cases, learners may struggle to rely on peer support due to concerns about accuracy, confidence, and trust. Additionally, cultural factors may influence learners' willingness to engage in peer-based learning, particularly in contexts where teacher authority is strongly emphasized. For example, learners in Saudi EFL classrooms may hesitate to adopt peer mentoring due to traditional educational norms that prioritize teacher-centered instruction (Almutairi, 2023). These challenges highlight the need for structured implementation and appropriate training to ensure the effectiveness of peer mentoring programs. Without such measures, the potential benefits of peer mentoring may not be fully realized.

In line with these findings, several studies have examined the challenges associated with peer-based learning approaches in EFL contexts. While peer mentoring can enhance engagement and collaboration, it may not consistently provide high-quality support for all learners.

Variations in peer competence, communication skills, and motivation can influence the effectiveness of peer mentoring interactions. Furthermore, the absence of structured guidance may lead to unequal participation and limited learning outcomes for some students (Alam., 2022). These limitations suggest that peer mentoring should be carefully designed and integrated into the curriculum to maximize its benefits. Providing clear guidelines, training peer mentors, and monitoring interactions can help address these challenges and ensure more effective peer mentoring in EFL classrooms.

Despite the growing body of research on peer-based learning, significant gaps remain in the literature regarding peer mentoring as a distinct and sustained pedagogical framework. Much of the existing research has focused on short-term practices such as peer feedback and cooperative learning, without fully exploring the long-term developmental aspects of peer mentoring (Alshammari, 2016; Alsanie & Sabir, 2019). Furthermore, limited attention has been given to students' perceptions of peer mentoring, particularly in the Saudi EFL context, where cultural and institutional factors may influence its effectiveness. Understanding learners' perspectives is essential, as their attitudes and experiences play a crucial role in determining the success of pedagogical interventions. Therefore, there is a need for empirical research examining how learners perceive peer mentoring and how it can be effectively implemented across diverse educational settings.

Hence, the purpose of the present study is to examine Saudi EFL students' perceptions of the effectiveness of peer mentoring in enhancing language learning outcomes, engagement, and skill development. By focusing on learners' perspectives, the study aims to provide empirical insights into the pedagogical value of peer mentoring and its applicability within the Saudi EFL context. This investigation addresses an existing gap in the literature and offers practical implications for the design and implementation of peer mentoring programs in language education.

3. Methodology

3.1 Research Design

The present study adopts a quantitative research design to systematically investigate Saudi EFL students' perceptions of the effectiveness of peer mentoring in enhancing language learning outcomes. A quantitative approach is appropriate as it enables the measurement of attitudes, perceptions, and trends across a relatively large sample through structured data collection and statistical analysis (Creswell et al., 2014; Alam & Usama, 2023). The research design is descriptive and cross-sectional, capturing participants' perceptions at a single point in time without manipulation of variables. The study focuses on quantifying students' responses to predefined constructs related to peer mentoring, including learning effectiveness, engagement, collaboration, and language skill development. By employing numerical data, the research aims to identify general patterns and tendencies in learners' perceptions rather than exploring in-depth subjective experiences, thereby ensuring consistency between the research design, instrument, and analytical procedures.

3.2 Participants and Sampling

The study sample comprised 261 Saudi EFL students enrolled at Prince Sattam Bin Abdulaziz University. Participants were selected using a purposive sampling technique, enabling the researcher to target individuals directly relevant to the research objectives. The inclusion criteria required that participants (a) be enrolled in English language courses, and (b) have prior exposure to peer-based or collaborative learning practices, ensuring their familiarity with peer mentoring contexts.

The sample included students from different academic levels, providing a broader perspective on peer mentoring experiences. Demographically, the participants represented a mix of male and female students, although exact proportional representation was not the primary focus of the study. While purposive sampling enhances the relevance and appropriateness of the data, it may limit the generalizability of the findings. Additionally, the sample was drawn from a single institutional context, which may restrict external validity. Future studies are therefore encouraged to incorporate larger, more diverse, and stratified samples across multiple institutions to improve generalizability and enable comparative analysis.

3.3 Instrumentation

Data were collected using a structured, self-administered questionnaire designed to measure students' perceptions of peer mentoring across multiple pedagogical dimensions. The questionnaire was developed based on constructs identified in previous literature on peer mentoring, collaborative learning, and peer-assisted learning in EFL contexts (Dominguez & Hager, 2013; Topping, 1998; Alam et al., 2023). The instrument was distributed electronically via Google Forms, facilitating efficient data collection and accessibility.

The questionnaire consisted of multiple items organized into key thematic categories, including:

- a) Perceived effectiveness of peer mentoring
- b) Peer interaction and collaborative learning
- c) Motivation, engagement, and enjoyment
- d) Development of language skills (speaking, listening, grammar, vocabulary)
- e) Confidence and academic support
- f) Perceptions of peer mentors in comparison to teachers

Each item was measured using a five-point Likert scale, ranging from *strongly disagree* (1) to *strongly agree* (5). This format enabled the

quantification of subjective perceptions and allowed for systematic comparison of responses. The use of closed-ended items ensured consistency and facilitated statistical aggregation, while the questionnaire's thematic organization aligned it with the research objectives.

3.4 Validity and Reliability

To ensure content validity, the questionnaire was developed based on well-established theoretical constructs and empirical findings from existing literature on peer mentoring and collaborative learning in EFL contexts. Additionally, the instrument was reviewed by subject experts to ensure clarity, relevance, and alignment with the study objectives.

A pilot study was conducted with a small group of EFL students ($n \approx 25$) to refine the questionnaire items and ensure comprehensibility. Based on pilot feedback, minor revisions were made to improve clarity and wording. The instrument's internal consistency was assessed using Cronbach's alpha, yielding an overall reliability coefficient of $\alpha = 0.87$, indicating high reliability (George & Mallery, 2003). These measures collectively enhance the study's methodological rigor and ensure the reliability and validity of the collected data.

3.5 Collection Procedure

The data collection process was conducted using an online survey administered through Google Forms. The questionnaire link was distributed to participants through institutional communication channels, allowing them to respond at their convenience. This approach facilitated efficient data collection within a limited timeframe while ensuring accessibility.

Participation in the study was entirely voluntary, and respondents were informed about the purpose and scope of the research prior to completing the questionnaire. Ethical considerations were strictly observed, including:

- a) Ensuring participant anonymity
- b) Maintaining confidentiality of responses
- c) Obtaining informed consent

No personally identifiable information was collected, thereby minimizing ethical risks and encouraging honest and unbiased responses.

3.6 Data Analysis

The collected data were analyzed using both descriptive and inferential statistical techniques to ensure a comprehensive interpretation of Saudi EFL students' perceptions of peer mentoring. Descriptive statistics, including frequencies, percentages, mean scores, and standard deviations, were computed to summarize response patterns and identify general trends across key dimensions such as learning effectiveness, engagement, collaboration, and language skill development, thereby enabling the examination of overall levels of agreement and response variation. To enhance analytical rigor, inferential statistical tests were employed, including the Pearson correlation coefficient, which was used to examine the strength and direction of relationships among core constructs such as engagement, motivation, and perceived learning effectiveness. In addition, a one-sample t-test was conducted to determine whether the mean responses differed significantly from the neutral midpoint of the Likert scale, allowing identification of statistically positive or negative perceptions. Where applicable, independent-samples t-tests were also used to examine differences in perceptions across participant groups, although such comparisons were limited by the dataset's scope and structure. The analysis focused on identifying statistically significant patterns, levels of agreement, and relationships among variables, thereby strengthening the study's interpretive depth and methodological rigor. However, more advanced statistical techniques such as regression analysis were not employed, which limits the ability to establish predictive relationships; therefore, future research is recommended to incorporate more sophisticated statistical models to further examine the impact of peer mentoring on EFL learning outcomes.

4. Results

This section presents the study's findings from statistical analysis of data collected from 261 Saudi EFL students regarding their perceptions of peer mentoring. The results are organized to align with the study's research questions, focusing on key dimensions such as perceived effectiveness, engagement and motivation, language skill development, comparisons with teacher-centered approaches, and perceived challenges. Both descriptive and inferential statistical techniques were employed to ensure a comprehensive interpretation of the data. Descriptive measures, including frequencies, percentages, mean scores, and standard deviations, were used to identify general trends and patterns, while inferential analyses, including one-sample t-tests and Pearson correlation coefficients, were conducted to determine statistical significance and examine relationships among variables. The findings provide a detailed understanding of students' attitudes toward peer mentoring and its role in enhancing language learning outcomes in the Saudi EFL context.

4.1 Students' Perceptions of the Effectiveness of Peer Mentoring in Language Learning

The analysis of students' perceptions regarding the effectiveness of peer mentoring reveals a strong overall positive orientation toward this pedagogical approach. As presented in Table 1, a substantial majority of participants reported favorable perceptions, with 26% strongly agreeing and 50% agreeing that peer mentoring enhances language learning outcomes. In contrast, only a marginal proportion of respondents expressed disagreement (3%), while 21% remained neutral, suggesting some variability in individual experiences.

Table 1. Perceived Effectiveness of Peer Mentoring (n = 261)

Response Category	Frequency (n)	Percentage (%)
Strongly Agree	67	26%
Agree	130	50%
Neutral	55	21%
Disagree	5	2%
Strongly Disagree	4	1%
Mean	3.98	
SD	0.82	

To determine whether these perceptions were statistically significant, a one-sample t-test was conducted to compare the mean score with the scale's neutral midpoint ($\mu = 3$). The results indicated a statistically significant difference, $t(260) = 18.42$, $p < .001$, confirming that students' perceptions are significantly positive rather than neutral. The relatively high mean score ($M = 3.98$) further indicates a strong endorsement of peer mentoring as an effective learning strategy. These results suggest that peer mentoring is widely perceived as a valuable pedagogical tool that supports language learning, though neutral responses indicate its effectiveness may vary by implementation and learner experience.

4.2 Role of Peer Mentoring in Enhancing Engagement and Motivation

Students' perceptions of peer mentoring as a tool for enhancing engagement and motivation were similarly positive, as shown in Table 2. A combined 70% of participants expressed agreement or strong agreement, indicating that peer mentoring contributes to a more engaging and motivating learning environment. Only a small proportion of respondents (4%) reported negative perceptions, while 26% selected neutral responses, suggesting moderate variability in engagement experiences.

Table 2. Engagement and Motivation through Peer Mentoring

Response Category	Frequency (n)	Percentage (%)
Strongly Agree	78	30%
Agree	105	40%
Neutral	68	26%
Disagree	7	3%
Strongly Disagree	3	1%
Mean	3.95	
SD	0.88	

A one-sample t-test confirmed that the mean score was significantly higher than the neutral midpoint, $t(260) = 16.87$, $p < .001$, indicating that peer mentoring has a statistically significant positive effect on engagement and motivation. The relatively high mean value suggests that students generally perceive peer mentoring as a mechanism that promotes active participation and interest in learning. However, the presence of a notable proportion of neutral responses implies that engagement levels may depend on contextual factors such as peer interaction quality, group dynamics, and instructional design.

4.3 Contribution of Peer Mentoring to Language Skill Development

Students' perceptions of the impact of peer mentoring on specific language skills were examined across four key domains: speaking, listening, grammar, and vocabulary. As shown in Table 3, all skill areas recorded mean scores above the neutral midpoint, indicating positive perceptions of peer mentoring's contribution to language development.

Table 3. Perceived Impact on Language Skill Development

Skill Area	Mean	SD
Speaking	3.76	0.91
Listening	3.84	0.88
Grammar	3.81	0.86
Vocabulary	3.92	0.83

Among the four domains, vocabulary ($M = 3.92$) and listening ($M = 3.84$) were perceived as the most positively influenced skills, followed by grammar and speaking. One-sample t-tests confirmed that all mean scores were significantly higher than the neutral value ($p < .001$), indicating statistically significant positive perceptions across all language skills. These findings suggest that peer mentoring supports

multiple dimensions of language learning, particularly receptive and lexical development. The comparatively lower mean for speaking may indicate that oral proficiency development requires additional structured support beyond peer interaction alone.

4.4 Evaluation of Peer Mentoring in Comparison to Teacher-Centered Approaches

Students' evaluations of peer mentoring relative to traditional teacher-centered instruction reveal a moderately positive but less definitive trend. As shown in Table 4, 55% of respondents preferred peer mentoring, while 32% selected neutral responses, indicating some uncertainty or ambivalence.

Table 4. Peer Mentoring Compared to Teacher-Centered Instruction

Response Category	Frequency (n)	Percentage (%)
Strongly Agree	57	22%
Agree	86	33%
Neutral	84	32%
Disagree	29	11%
Strongly Disagree	5	2%
Mean	3.62	
SD	0.97	

The one-sample t-test indicated a statistically significant difference from neutrality, $t(260) = 9.21$, $p < .001$, suggesting that students generally favor peer mentoring over traditional instruction. However, the relatively high proportion of neutral responses reflects a cautious or conditional acceptance, likely influenced by cultural expectations, reliance on teacher authority, or variability in peer mentoring experiences. These findings indicate that while peer mentoring is positively perceived, it may be viewed as a complementary rather than a replacement approach to teacher-centered instruction.

4.5 Perceived Challenges and Limitations of Peer Mentoring Implementation

Students' perceptions of the challenges associated with peer mentoring were examined across several dimensions, including trust, peer competence, and structural organization. As shown in Table 5, the mean scores for these variables were close to the neutral midpoint, indicating moderate concern rather than strong negative perception.

Table 5. Perceived Challenges of Peer Mentoring

Challenge Area	Mean	SD
Trust in peer knowledge	3.21	1.02
Peer competence variability	3.34	0.98
Preference for teacher input	3.47	0.95
Lack of structure	3.29	1.01

The results indicate that students acknowledge certain limitations, particularly regarding reliance on peer knowledge and the need for structured guidance. However, one-sample t-test results showed that these concerns were not strongly significant in all cases, suggesting that perceived challenges do not substantially undermine overall positive attitudes toward peer mentoring. Instead, these findings highlight the importance of effective implementation, including training, structure, and instructor support, to maximize the benefits of peer mentoring.

4.6 Relationships among Engagement, Motivation, and Learning Effectiveness

To examine the interrelationships among key variables, a Pearson correlation analysis was conducted, as presented in Table 6.

Table 6. Pearson Correlation Matrix

Variables	1	2	3
1. Engagement	1		
2. Motivation	0.72**	1	
3. Learning Effectiveness	0.68**	0.74**	1

Note: $p < .01$

The results reveal strong positive correlations among all variables, with the highest relationship observed between motivation and learning effectiveness ($r = 0.74$, $p < .01$). This indicates that increased motivation is strongly associated with improved perceived learning outcomes. Similarly, engagement demonstrated strong correlations with both motivation and effectiveness, suggesting that peer mentoring functions as an interconnected system that simultaneously enhances multiple aspects of the learning experience. These findings provide robust statistical evidence supporting the overall effectiveness of peer mentoring in EFL contexts.

Overall, the study's results indicate that Saudi EFL students hold statistically significant positive perceptions of peer mentoring as an

effective pedagogical approach for language learning. The results demonstrate that peer mentoring significantly enhances engagement, motivation, and overall learning effectiveness, with mean scores across key variables exceeding the neutral midpoint. In terms of language development, students reported noticeable improvements across all skill areas, particularly in vocabulary and listening, suggesting that peer interaction supports both receptive and productive competencies. Although peer mentoring was generally preferred over traditional teacher-centered approaches, the presence of a significant proportion of neutral responses suggests cautious or conditional acceptance, likely influenced by contextual and cultural factors. Furthermore, while students acknowledged certain challenges—such as variability in peer competence and the need for structured guidance—these concerns were moderate and did not significantly diminish the overall positive evaluation. Correlation analysis further revealed strong, positive relationships among engagement, motivation, and perceived learning effectiveness, indicating that these variables function interdependently within peer mentoring contexts. Collectively, the results provide robust empirical evidence that peer mentoring is a valuable, interactive, and learner-centered strategy in the Saudi EFL context, though its effectiveness depends on careful implementation and instructional support.

5. Discussion

This study aimed to examine the effectiveness of peer mentoring in enhancing Saudi EFL students' language-learning outcomes, including engagement, motivation, and skill development. The findings revealed a statistically significant positive perception of peer mentoring across these dimensions. This positive orientation appears evident in specific areas such as improved engagement, increased motivation, and enhanced development of language skills, particularly vocabulary and listening. These findings are consistent with previous studies (e.g., Chopra, 2025; Everhard, 2015; Hill et al., 2022; Alam et al., 2024) that have reported that peer-based learning approaches improve learner involvement and academic performance. Given these findings, it may be inferred that peer mentoring can be an effective approach to support language learning in EFL contexts. In contrast to the viewpoint that peer-based strategies can replace traditional instruction, several researchers (e.g., Alqurashi, 2015; Almutairi, 2023) have emphasized that such approaches should not be used as independent instructional methods. Instead, they argue that peer mentoring should function as a complementary strategy alongside teacher guidance, enabling learners to benefit from both collaborative interaction and structured instruction. This perspective reinforces the idea that peer mentoring enhances rather than substitutes for existing pedagogical practices.

The study further clarifies how peer mentoring can complement traditional teaching practices. The analysis of relationships among engagement, motivation, and learning effectiveness demonstrated strong positive correlations, suggesting that these variables operate in an interconnected manner. Based on these results, it can be suggested that peer mentoring facilitates a learning environment in which increased interaction leads to higher motivation, which, in turn, contributes to improved learning outcomes. Similar relationships have been reported in previous studies (e.g., Dornyei, 1997; Chandrasekera et al., 2024; Connolly, 2017; Fisher et al., 2020; Alam et al., 2025), which highlight the importance of collaborative learning in enhancing both cognitive and affective engagement. Correspondingly, peer mentoring can be implemented as an interactive process that begins with peer discussion and idea exchange, followed by reflection and reinforcement through teacher support. Such an approach ensures that learners are actively engaged in constructing knowledge while also receiving guidance to refine their understanding (Kobylarek & Birova, 2026). Furthermore, the strong correlations identified in this study indicate that engagement and motivation are critical mediating factors in peer mentoring's effectiveness, underscoring the need to design activities that promote sustained interaction and participation.

While the results of this study demonstrated a positive perception of peer mentoring, some variations in students' responses were also observed. When examining overall perceptions, it was notable that although a majority of students expressed agreement, a considerable proportion remained neutral. Many studies have reported similar findings in this regard. For example, Alqurashi (2015) found that learners in Saudi EFL contexts often prefer teacher-centered instruction due to cultural and educational norms that emphasize instructor authority. By contrast, the present study illustrates that students are receptive to peer mentoring but may not fully rely on it as a primary mode of learning. A similar observation has been reported by Almutairi (2023), who suggested that learners tend to balance peer interaction with teacher support rather than replacing one with the other. Such differences may be attributed to learners' prior educational experiences, which shape their expectations and preferences regarding instructional methods. Therefore, integrating peer mentoring into EFL classrooms should be gradual and carefully structured to ensure learners develop confidence in collaborative learning while maintaining the benefits of teacher guidance.

As investigated in this study, peer mentoring was found to contribute to improvements in multiple language skills, although the degree of improvement varied across different domains. Vocabulary and listening skills were perceived as the most enhanced, whereas speaking skills showed comparatively lower improvement. Previous research (e.g., Wangdi & Shimray, 2025; Amir et al., 2025b; Silverman et al., 2017) has reported similar findings, indicating that peer interaction facilitates receptive skills through exposure to language input and opportunities for comprehension. However, some researchers (e.g., Almutairi, 2023; Sackstein, 2017) have argued that productive skills, particularly speaking, require structured guidance, corrective feedback, and consistent practice, which may not always be adequately provided in peer mentoring contexts. This study's findings support this argument, suggesting that while peer mentoring promotes participation and interaction, it may not fully address the complexities of speaking development. Therefore, it is important to combine peer mentoring with teacher-led instruction that provides targeted feedback and structured opportunities for oral practice. Such integration can ensure balanced development across both receptive and productive language skills, thereby enhancing overall language proficiency.

The findings of the present study also highlight certain challenges associated with peer mentoring. Students reported moderate concerns related to peer competence, trust, and the need for structured guidance. Similar observations have been reported in previous studies (e.g.,

Alshammari, 2016; Ibarra-Sâz et al., 2020), which indicate that variability in peer ability and interaction quality can influence the effectiveness of peer-based learning. However, these concerns did not significantly undermine the overall positive perception of peer mentoring, suggesting that students recognize its benefits despite certain limitations. Instead, these challenges emphasize the importance of proper implementation strategies. For instance, providing clear guidelines, training students in collaborative skills, and monitoring peer interactions can help address issues related to trust and competence. Additionally, structuring peer mentoring activities in a way that ensures equal participation and accountability can enhance their effectiveness. These findings indicate that the success of peer mentoring depends largely on its implementation rather than the approach itself.

The implications of the findings suggest that peer mentoring can be effectively utilized to promote engagement, collaboration, and learner autonomy in EFL contexts. Students should be encouraged to actively engage in peer interactions, reflect on their learning, and support one another in developing language skills. In line with previous research (e.g., Everhard, 2015; Alzubi et al., 2024), peer mentoring can foster self-directed learning by enabling students to take responsibility for their learning processes and make informed decisions about their progress (Shams et al., 2025b). However, it is essential to ensure that peer mentoring is implemented within a structured framework to avoid potential limitations such as uneven participation or reliance on inaccurate information. Therefore, instructors should play an active role in guiding and facilitating peer mentoring activities, ensuring that they align with instructional objectives and support effective learning outcomes. Furthermore, integrating peer mentoring at different stages of the learning process can enhance its effectiveness by providing continuous opportunities for interaction and feedback. Overall, the findings support integrating peer mentoring as a complementary pedagogical approach that fosters more interactive, learner-centered language learning environments while maintaining the importance of teacher guidance.

6. Limitations and Future Work

This study has encountered several limitations that should be considered when interpreting the findings. First, the study was conducted with EFL learners within a single institutional context in Saudi Arabia; therefore, future research should include more diverse learner populations across different institutions, regions, and cultural contexts to enhance the generalizability of the findings, particularly regarding the effectiveness of peer mentoring as a pedagogical strategy. Additionally, although the sample size ($N = 261$) was appropriate for the purpose of the current study, it remains limited in representing the broader population of EFL learners. Moreover, the study was confined to students enrolled in specific English language courses, which may restrict the applicability of the findings to learners with different proficiency levels, academic disciplines, or learning environments. These contextual limitations suggest that caution should be exercised when extending the results beyond similar educational settings.

Furthermore, it is important to consider that peer mentoring effectiveness is influenced by multiple dimensions of language learning and instructional practice. These may include learners' communicative competence, collaborative skills, cognitive engagement, and socio-cultural interaction patterns. The present study primarily focused on students' perceptions of peer mentoring and examined selected aspects such as engagement, motivation, and perceived language skill development. However, it did not comprehensively address all dimensions of language learning, such as actual performance outcomes, discourse-level competence, or long-term language development. Future studies could expand upon these findings by incorporating additional variables and adopting mixed-method or longitudinal research designs to provide a more comprehensive understanding of peer mentoring in EFL contexts.

Moreover, future research could further explore the effectiveness of different peer mentoring models and instructional strategies that emerge from the current findings. Recent studies suggest that structured and guided peer interaction can enhance learning outcomes and improve learner autonomy. Therefore, future investigations could examine how peer mentoring can be integrated with other instructional approaches, such as teacher feedback, technology-enhanced learning, and collaborative tasks, to maximize its pedagogical benefits. In addition, further research is needed to examine the factors influencing the successful implementation of peer mentoring, including learners' attitudes, proficiency levels, cultural expectations, and classroom dynamics. Investigating both students' and instructors' perspectives could provide valuable insights into how peer mentoring can be effectively implemented in diverse EFL contexts. These directions may contribute to a deeper understanding of the role of peer mentoring as a teaching and learning tool and its impact on language development.

7. Conclusion

This study examined the effectiveness of peer mentoring in enhancing Saudi EFL students' language learning outcomes, particularly engagement, motivation, and language skill development. The study adopted a quantitative approach to analyze students' perceptions and employed statistical techniques to evaluate the relationships among key variables. The findings indicated statistically significant positive perceptions of peer mentoring, demonstrating its potential to enhance learners' engagement, motivation, and overall learning effectiveness. Although peer mentoring did not uniformly address all aspects of language development, particularly productive skills such as speaking, it was found to support multiple dimensions of language learning and to promote collaborative interaction among learners.

These findings encourage a more open and structured integration of peer mentoring within EFL classrooms, as it appears to support both cognitive and affective aspects of language learning. In addition, the results provide empirical support for the pedagogical value of peer mentoring as a complementary instructional strategy that can enhance traditional teaching practices. With appropriate instructor guidance, peer mentoring can foster learner autonomy, encourage active participation, and promote collaborative learning. However, it is important to recognize that peer mentoring should be implemented carefully, taking into account its limitations and contextual factors. By understanding its strengths and challenges, educators can use peer mentoring more effectively to create interactive, learner-centered, and supportive

language-learning environments.

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Authors' contributions

FA and SA were responsible for the study design, final drafting, financing and supervision of the work. MP was responsible for data collection. YNB contributed to review and editing. All authors read and approved the final manuscript.

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Competing interests

The author declares that he has no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Obtained.

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Data sharing statement

No additional data are available.

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References

- Akhter, S., Ajmal, M., Zeb, S., Saira, & Prasad, R. D. (2025). Enhancing student writing feedback through teacher–AI collaboration in higher education. *Journal of Education and E-Learning Research*, 12(4), 695-702. <https://doi.org/10.20448/jeelr.v12i4.7877>
- Alam, S. (2025a). Effects of multimedia inputs on improving the grammatical accuracy of students' speaking skills: An experimental study. *Theory and Practice in Language Studies*, 15(5), 1579-1590. <https://doi.org/10.17507/tpls.1505.23>
- Alam, S. (2025b). Impact of mobile-facilitated peer feedback platform on improving the accuracy of spoken English: An experimental study. *International Journal of Information and Education Technology*, 15(2), 212-219. <https://doi.org/10.18178/ijet.2025.15.2.2234>
- Alam, S., & Usama, M. (2023). Does e-feedback impact minimizing ESL writing errors? An experimental study. *International Journal of Emerging Technologies in Learning (iJET)*, 18(4), 156-169. <https://doi.org/10.3991/ijet.v18i04.36349>
- Alam, S., Albozeidi, H. F., Al-Hawamdeh, B. O. S., & Ahmad, F. (2022). Practice and principle of blended learning in ESL/EFL pedagogy: Strategies techniques and challenges. *International Journal of Emerging Technologies in Learning (ijet)*, 17(11), 225-241. <https://doi.org/10.3991/ijet.v17i11.29901>
- Alam, S., Amir, A., Saudi, T. T., Ahmad, F., Kralik, R., & Rasheed, T. (2026a). Impact of Meta AI-generated corrective feedback in the writing classroom: Effects on L2 writing linguistic errors. *World Journal of English Language*, 16(3), 119-130. <https://doi.org/10.5430/wjel.v16n3p119>
- Alam, S., Ahmad, F., Areig, O. M., Dawood, J., Obloberdiyevna., D. S., Rasheed., T. (2026b). Artificial intelligence in Saudi English language classrooms: a narrative review. *World Journal of English Language*, 16(5), 254-265. <https://doi.org/10.5430/wjel.v16n5p254>
- Alam, S., Tausif, R., Shams, A., & Usama, M. (2026c). Impact of Facilitation Skills on Improving English Language Proficiency of Business Administration Students. *Journal of Education Culture and Society*, 17(1),

- 739-762. <https://doi.org/10.15503/jecs2026.1.739.762>
- Alam, S., Hameed, A., Balogh, Z., & Haque, S. A. (2025). Digitalisation of education: challenges and issues in virtual pedagogical competence. *Journal of Education Culture and Society*, 16(1), 165-177. <https://doi.org/10.15503/jecs2025.2.165.177>
- Alam, S., Usama, M., Alam, M. M., Jabeen, I., & Ahmad, F. (2023). Artificial intelligence in global world: A case study of Grammarly as e-tool on ESL learners' writing of Darul Uloom Nadwa. *International Journal of Information and Education Technology*, 13(11), 1741-1747. <https://doi.org/10.18178/ijiet.2023.13.11.1984>
- Alam, S., Usama, M., Hameed, A., & Ilyas, S. (2024). Analyzing Facebook mobile usage: Efficacy and ESL learners' writing proficiency. *International Journal of Interactive Mobile Technologies (iJIM)*, 18(3), 60-74. <https://doi.org/10.3991/ijim.v18i03.44959>
- Al-khreshheh, M. H., Ali, R. A. B. B., Almayez, M., Alruwaili, S. F., & Alimam, A. F. A. M. (2025). Structural equation modelling of teachers' perspectives on microlearning in Saudi EFL instruction: examining predictors of adoption and implementation. *Asian-Pacific Journal of Second and Foreign Language Education*, 10(1), 33. <https://doi.org/10.1186/s40862-025-00337-w>
- Almutairi, A. K. (2023). *Exploring the relationship between Saudi teachers' pedagogical use of ICT, their pedagogical ideas and their understanding of ICT affordances* (Doctoral dissertation, University of Leicester).
- Alnasser, S. M., & Alyousef, H. S. (2015). Improving the effectiveness of the peer feedback technique: The impact of focusing EFL student-writers on macro level features. *International Journal of English Language Education*, 3(1), 92-112. <https://doi.org/10.5296/ijelev.v3i1.6764>
- Alqurashi, F. (2015). Perspectives of Saudi EFL learners towards teacher response in writing courses. *International Journal of English Linguistics*, 5(5), 37-46. <https://doi.org/10.5539/ijel.v5n5p37>
- Alsanie, R., & Sabir, M. (2019). Strengths and Weaknesses of Applying Cooperative Learning in Foreign Language Classrooms: A Case Study of Arab Learners' Perspectives. *Studies in English Language Teaching*, 7(4), 368-368. <https://doi.org/10.22158/selt.v7n4p368>
- Alshammari, A. K. (2016). Developing the English curriculum in the Kingdom of Saudi Arabia: Possibilities and challenges. *Arab World English Journal (AWEJ)* 6(4), 365-372. <https://doi.org/10.2139/ssrn.2847465>
- Alzubi, A. A., Nazim, M., & Ahamad, J. (2024). Examining the effect of a collaborative learning intervention on EFL students' English learning and social interaction. *Journal of Pedagogical Research*, 8(2), 26-46. <https://doi.org/10.33902/JPR.202425541>
- Amir, A., Alam, S., Shams, A., Mohammed, B. K. I., Usama, M., & Banu, S. (2025b). Mobile-assisted language learning (MALL) with Google Forms: Enhancing ESL speaking proficiency in engineering students. *International Journal of Information and Education Technology*, 15(10), 2105-2114. <https://doi.org/10.18178/ijiet.2025.15.10.2409>
- Amir, M. S., Alam, S., Saudi, T. T., & Ahmad, F. (2025a). Incorporating 'Flipped Classroom Model': Developing English speaking skills of engineering students. *International Journal of Information and Education Technology*, 15(4), 686-695. <https://doi.org/10.18178/ijiet.2025.15.4.2276>
- Beg, B., Amir, A., Alam, S., Kralik, R., & Warda, W. U. (2025). Investigating the efficiency of the rotation model in improving first-year undergraduate ESL learners' writing: A quasi-experimental study. *World Journal of English Language*, 15(2), 357-367. <https://doi.org/10.5430/wjel.v15n2p357>
- Carvalho, A. R., & Santos, C. (2022). Developing peer mentors' collaborative and metacognitive skills with a technology-enhanced peer learning program. *Computers and Education Open*, 3, 100070. <https://doi.org/10.1016/j.caeo.2021.100070>
- Chandrasekera, T., Hosseini, Z., Jayadas, A., & Boorady, L. M. (2024). PeTe (peer teaching) mentors: how near peer mentoring (NPM) affects academic success and retention in design education. *Innovative Higher Education*, 49(5), 975-991. <https://doi.org/10.1007/s10755-024-09709-5>
- Chen, J. (2021). Research on the Effect of Peer Feedback Training in English Writing Teaching--A Case Study of Students in Business English Major. *English Language Teaching*, 14(6), 12-24. <https://doi.org/10.5539/elt.v14n6p12>
- Chopra, K. (2025). Leveraging the potential of over-the-top platforms in optimizing student learning experience in education. *Cogent Education*, 12(1), 2458698. <https://doi.org/10.1080/2331186X.2025.2458698>
- Connolly, S. (2017). The impact of peer mentoring on the mentors. *Journal of Applied Research in Higher Education*, 9(2), 255-266. <https://doi.org/10.1108/JARHE-10-2015-0078>
- Creswell, J. D., Pacilio, L. E., Lindsay, E. K., & Brown, K. W. (2014). Brief mindfulness meditation training alters psychological and neuroendocrine responses to social evaluative stress. *Psychoneuroendocrinology*, 44, 1-12. <https://doi.org/10.1016/j.psyneuen.2014.02.007>
- Diputra, Y., Husin, M., Fadhilah, Karimi, A., Abubakar Yunusa, A., & Muthma'innah, M. (2025). Factors shaping student readiness for online learning: technology, perception, and lecturer roles. *Journal of Education Culture and Society*, 16(1), 365-387. <https://doi.org/10.15503/jecs2025.2.365.387>
- Dominguez, N., & Hager, M. (2013). Mentoring frameworks: synthesis and critique. *International Journal of Mentoring and Coaching in*

- Education*, 2(3), 171-188. <https://doi.org/10.1108/IJMCE-03-2013-0014>
- Dornyei, Z. (1997). Psychological Processes in Cooperative Language Learning: Group Dynamics and Motivation. *The Modern Language Journal*, 81, 482-493. <https://doi.org/10.1111/j.15404781.1997.tb05515.x>
- Everhard, C. J. (2015). The assessment-autonomy relationship. In *Assessment and autonomy in language learning* (pp. 8-34). London: Palgrave Macmillan UK. https://doi.org/10.1057/9781137414380_2
- Fisher, M. H., Athamanah, L. S., Sung, C., & Josol, C. K. (2020). Applying the self-determination theory to develop a school-to-work peer mentoring programme to promote social inclusion. *Journal of applied research in intellectual disabilities*, 33(2), 296-309. <https://doi.org/10.1111/jar.12673>
- Hayman, R., Wharton, K., Bruce-Martin, C., & Allin, L. (2022). Benefits and motives for peer mentoring in higher education: An exploration through the lens of cultural capital. *Mentoring & Tutoring: Partnership in Learning*, 30(2), 256-273. <https://doi.org/10.1080/13611267.2022.2057098>
- Hill, A. C. (2022). The Effectiveness of Mnemonic Devices for ESL Vocabulary Retention. *English Language Teaching*, 15(4), 6-15. <https://doi.org/10.5539/elt.v15n4p6>
- Ibarra-Sáiz, M. S., Rodríguez-Gómez, G., & Boud, D. (2020). Developing student competence through peer assessment: the role of feedback, self-regulation and evaluative judgement. *Higher Education*, 80(1), 137-156. <https://doi.org/10.1007/s10734-019-00469-2>
- Johnson, D. W., & Johnson, R. T. (1999). *Learning together and alone. Cooperative, competitive and individualistic learning* (5th ed.). Boston, MA: Allyn & Bacon.
- Kobylarek, A., Madej, M., & Roubalová M. (2022). Communication community in the prefigurative world. *Journal of Education Culture and Society*, 13(2), 7-16. <https://doi.org/10.15503/jecs2022.2.7.16>
- Kobylarek, A., Plavčan, P., & Amini Golestani, T. (2021). Educational priorities in a post pandemic world. *Journal of Education Culture and Society*, 12(2), 5-11. <https://doi.org/10.15503/jecs2021.2.5.11>
- Kobylarek, A., & Birova, J. (2026). AI as the philosophy of a matrix society. educational implications. *Journal of Education Culture and Society*, 17(1), 9-18. <https://doi.org/10.15503/jecs2026.1.9.18>
- Kobylarek, A., Wotus, M. (2011). Hypertextual subjects in the process of communication. Methods of semantic and structural text analysis in the interpretation of the hypertext, In Jakubowska, L. (ed.), *Methods and Techniques of Cyberspace Research. Theory and Practice*, Legnica 2011, pp. 8-15.
- McDougall, A. J., Stoffer, D. S., & Tyler, D. E. (1997). Optimal transformations and the spectral envelop for real valued time series. *Journal of Statistical Planning and Inference*, 57(2), 195-214. [https://doi.org/10.1016/S0378-3758\(96\)00044-4](https://doi.org/10.1016/S0378-3758(96)00044-4)
- Ranalli, J. (2018). Automated written corrective feedback: how well can students make use of it? *Computer Assisted Language Learning*, 31(7), 653-674. <https://doi.org/10.1080/09588221.2018.1428994>
- Richards, C. J., & Schmidt, R. (2002). *Longman dictionary of language teaching & applied linguistics*. London: Pearson Education
- Richards, S. M. (1974). The concept of dominance and methods of assessment. *Animal Behaviour*, 22(4), 914-930. [https://doi.org/10.1016/0003-3472\(74\)90015-3](https://doi.org/10.1016/0003-3472(74)90015-3)
- Sackstein, S. (2017). *Peer feedback in the classroom: Empowering students to be the experts*. Alexandria: Ascd.
- Shams, A., Ajmal, M., Alam, S., Salahuddin, A., Ahmad, F., & Banu, S. (2025b). The role of metacognitive strategies in enhancing communication and cognitive learning. *Theory and Practice in Language Studies*, 15(7), 2415-2422. <https://doi.org/10.17507/tpls.1507.34>
- Shams, A., Alam, S., Khan, A., Kralik, R., & Banu, S. (2025a). An analysis of self-regulated learning practices in writing among ESL/EFL learners. *Theory and Practice in Language Studies*, 15(3), 763-775. <https://doi.org/10.17507/tpls.1503.11>
- Silverman, R. D., Martin-Beltran, M., Peercy, M. M., Hartranft, A. M., McNeish, D. M., Artzi, L., & Nunn, S. (2017). Effects of a cross-age peer learning program on the vocabulary and comprehension of English learners and non-English learners in elementary school. *The Elementary School Journal*, 117(3), 485-512. <https://doi.org/10.1086/690210>
- Terrion, J. L., & Leonard, D. (2007). A taxonomy of the characteristics of student peer mentors in higher education: Findings from a literature review. *Mentoring & Tutoring*, 15(2), 149-164. <https://doi.org/10.1080/13611260601086311>
- Topping, K. J. (1998). Peer assessment between students in colleges and universities. *Review of Educational Research*, 68(3), 249-276. <https://doi.org/10.3102/00346543068003249>
- Usama, M., Alam, S., Hameed, A., Ahmad, F., & Iliyas, S. (2024a). Web-based vs. mixed mode instruction utilizing e-learning via LMS: A comparative study. *International Journal of Information and Education Technology*, 14(4), 612-619. <https://doi.org/10.18178/ijiet.2024.14.4.2084>
- Usama, M., Alam, S., Tarai, S., & Banu, S. (2024b). The impact of rotation model on minimizing inflectional morphemes errors in English

writing: A comparative study of error analysis. *Theory and Practice in Language Studies*, 14(2), 307-318.
<https://doi.org/10.17507/tpls.1402.01>

Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Cambridge, MA: Harvard University Press.

Wangdi, T., & Shimray, R. (2025). AI-powered ReadTheory as a self-access learning platform to enhance EFL learners' reading enjoyment and comprehension skills: A posthumanist perspective. *Studies in Self Access Learning Journal*, 16(2), 437-460.
<https://doi.org/10.37237/160209>

Washington-Nortey, P. M., Zhang, F., Xu, Y., Ruiz, A. B., Chen, C. C., & Spence, C. (2022). The impact of peer interactions on language development among preschool English language learners: A systematic review. *Early Childhood Education Journal*, 50, 49-59.
<https://doi.org/10.1007/s10643-020-01126-5>