



Peer support in language learning: Mitigating anxiety, enhancing achievement, cultivating growth mindsets, and increasing enjoyment

Ehsan Namaziandost ^A	A	<i>PhD in Applied Linguistics (TEFL); Department of General Courses, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran & Islamic Azad University of Ahvaz, Ahvaz, Iran</i>
Hossein Kargar Behbahani ^B	B	<i>PhD Student in TEFL, Department of Foreign Languages and Linguistics, Shiraz University, Shiraz, Iran</i>
Azam Naserpour ^C	C	<i>Assistant Professor in applied linguistics at English Language Department at Ayatollah Ozma Borujerdi University, Iran</i>

Keywords

Academic achievement;
academic enjoyment;
foreign language anxiety;
growth mindset;
peer support.

Abstract

This research focuses on Iranian undergraduate students and examines the impact of peer support on anxiety, success, growth mindsets, and enjoyment of learning English as a foreign language. This study employed a sequential exploratory mixed-methods approach to examine the impact of language learning interventions through peer-support on students' experiences and outcomes. The research involved 54 monolingual Persian-speaking participants aged 18 to 20, who were randomly assigned to either the experimental or control groups. In contrast to the control group, who participated in more conventional, teacher-led sessions without peer assistance, the experimental group could rely on classmates for help in and out of class. Methods for data collection included teacher-made assessments, observations, and semi-structured interviews. Quantitative data was analyzed using independent samples t-tests, while qualitative data was analyzed using thematic analysis. Results indicated that students in the experimental group experienced lower anxiety, better academic performance, cultivated growth mindsets, and enjoyed their language learning compared to the control group. The findings emphasize the significance of peer support in establishing conducive learning environments to enhance language learning outcomes and experiences.

Correspondence

e.namazi75@yahoo.com^A

Article Info

Received 13 July 2024
Received in revised form 28 September 2024
Accepted 30 September 2024
Available online 1 October 2024

DOI: <https://doi.org/10.37074/jalt.2024.7.2.40>

Introduction

In foreign language education, the significance of peer support cannot be overstated. Beyond the traditional roles as classmates, peers serve as invaluable sources of encouragement, understanding, and collaboration within the language learning process (Khan et al., 2023; Rababah, 2023; Rezai et al., 2024). This study explores the multifaceted effects of peer support on various crucial dimensions of foreign language acquisition. These dimensions include reducing language learning anxiety, enhancing language learning achievements, cultivating growth mindsets, and fostering academic enjoyment. By shedding light on these interconnected aspects, this research offers insights that enrich our understanding of peer dynamics in educational settings and offer practical implications for educators, curriculum developers, and learners. By exploring the nuanced interactions between peers and their impact on language learning outcomes, this study underscores the importance of cultivating supportive learning environments that go beyond traditional classroom companionship.

Peer support refers to collaborative teaching-learning processes where students assist each other in learning across various subjects (Huang, 2023; Newton & Ender, 2010). This approach involves active assistance among students of equal status and social standing, facilitating the transfer of experiences and knowledge from one peer to another (Solhi, 2024). Research underscores the benefits of integrating peer support into educational practices, including enhancing students' self-confidence and communication skills (Schleyer et al., 2005), improving reading performance (Sáenz et al., 2005), and cultivating positive social behaviors among students (Plumer & Stoner, 2005). Additionally, peer support promotes students' sense of learning responsibility and fosters a conducive learning environment (Baillie & Grimes, 1999; Wan et al., 2024). Learners have also reported that peer supporters uniquely understand their peers' needs, further highlighting the efficacy of peer support initiatives (Ten Cate et al., 2012).

Over the past four decades, extensive research has investigated foreign language (FL) learning anxiety. Studies consistently indicate that most language learners experience anxiety during the language acquisition process (Horwitz et al., 1986; Aida, 1994; MacIntyre & Gardner, 1986; Dewaele et al., 2023; Pan & Zhang, 2023; Zhou et al., 2023). The classroom environment significantly contributes to this anxiety, as students are expected to communicate in an unfamiliar language in front of their peers, often under public evaluation (Horwitz et al., 1986).

Dweck (1999) explored the reasons why some students embraced learning challenges despite their difficulty while others approached them with anxiety or reluctance. The theory of mindset has emerged illustrating a spectrum ranging from the fixed to the growth mindset across various domains of their lives. For example, a student may exhibit a fixed mindset regarding their academic abilities while embracing a growth mindset regarding their athletic prowess, such as playing baseball. In the fixed mindset framework, individuals perceive intelligence as immutable (Dweck, 1999; Dweck, 2006; Mueller & Dweck, 1998). Typically, those with

a fixed mindset view their academic or otherwise failures as indicative of their inherent intelligence. Moreover, the added distress arises when such individuals exert effort but still face failure, leaving them with no recourse other than attributing their shortcomings to a perceived deficiency in intelligence (Dweck, 2006).

Academic enjoyment refers to the enjoyment that students derive from studying a subject they favor (Boliver & Capsada-Munsech, 2021). As achievement emotions are domain-specific, exploring academic enjoyment necessitates examination within a specific domain (Goetz et al., 2010; Goetz et al., 2006). Thus, in this investigation, English as a foreign language (EFL) enjoyment refers to the pleasure students derive from learning English. Moreover, Pekrun (2006) elucidates that academic enjoyment can be characterized by valence, activation, and object focus. Specifically, EFL enjoyment manifests as a positive, activating, and task-oriented emotion. Prior research underscores the significance of academic enjoyment for adolescents, indicating that experiencing pleasure is crucial for attaining superior academic performance (Goetz et al., 2006; Lumby, 2011; Shernoff et al., 2003).

The pervasive influence of peer support on diverse facets of foreign language education prompts exploring its nuanced effects. This study addresses whether peer support impacts foreign language learning anxiety, language learning achievements, growth mindsets, and academic enjoyment among EFL learners. Despite recognizing the benefits of peer support across educational contexts, its specific implications within foreign language acquisition remain relatively underexplored. Existing literature emphasizes the prevalence of language learning anxiety among students, the crucial role of mindset orientations in shaping learning behaviors, and the significance of academic enjoyment in fostering sustained engagement and performance. However, there are still gaps in understanding how peer support interacts with these factors to influence the language learning experience. Through this investigation, the study seeks to provide empirical insights into how peer support shapes learners' experiences and outcomes in foreign language education, thereby contributing to the development of more effective pedagogical strategies and supportive learning environments.

This study holds significant theoretical and practical implications for language education, particularly in understanding the role of peer support in foreign language learning. From a theoretical perspective, it contributes to the growing body of research on how peer interactions influence key aspects of language learning, including anxiety reduction, academic achievement, growth mindsets, and overall academic enjoyment. By examining these dynamics, the study deepens our understanding of the psychological and social factors that shape language acquisition.

Practically, the findings can inform teachers, curriculum designers, and policymakers in several meaningful ways. For teachers, recognizing how peer support affects language learning outcomes can help refine instructional strategies that leverage peer collaboration to lower anxiety, enhance motivation, and foster a positive learning environment.

Curriculum designers can use these insights to create more effective, student-centered curricula that incorporate peer-based activities aimed at improving language skills, promoting growth mindsets, and increasing student engagement. For policymakers, this research highlights the importance of designing educational frameworks that support resilience, self-efficacy, and intrinsic motivation among learners, which can ultimately lead to more equitable and effective language programs. Moreover, the study's findings may help identify targeted interventions for students at higher risk of anxiety or negative attitudes toward language learning, ensuring that classrooms become more inclusive and supportive. By highlighting the multifaceted impact of peer support, this research can guide efforts to improve both the learning experience and academic outcomes for language learners on a global scale. To meet such significant implications, the present study aimed to answer the following research questions (RQs):

- RQ1. To what extent does peer support affect academic enjoyment?
- RQ2. To what extent does peer support affect foreign language anxiety?
- RQ3. To what extent does peer support affect EFL learners' mindsets?
- RQ4. To what extent does peer support affect EFL learners' academic achievement?

Literature review

Peer support

Peer support has its origins in the field of mental health, where individuals who have overcome mental illness provide assistance to those still struggling (Walker & Bryant, 2013). Despite a growing increase in psychology and education studies, a specific definition of peer support remains elusive (Rezai, 2023; Ulmanen et al., 2022; Xie & Guo, 2023). Researchers such as Barrera and Ainlay (1983) and Langford et al. (1997) have delved into the background and structure of social support. Clarifying social support helps in understanding the origins and structure of peer support, which is a fundamental part of social support (Wentzel et al., 2010).

Relationships with loved ones, close friends, and family are where social support begins (Zimet et al., 1988). According to Cutrona and Russell (1990), there are four main categories of social support: esteem, informational, social companionship, and instrumental. In a functional sense, social support includes various services, such as financial aid, behavioral advice, counseling, positive social engagements, feedback systems, and intimate contacts (Barrera & Ainlay, 1983). Support for students' academic and personal needs is fostered in the classroom via interactions between teachers and students (Ghaith, 2002). This study draws on previous research (Ghaith, 2002; Johnson & Johnson, 1983; Kim et al., 2018) to distinguish two main types of peer support. The first type is academic support, which encompasses academic assistance and guidance from peers who have similar

backgrounds and interact frequently. The second type is emotional support, which involves the provision of esteem, trust, care, and emotional connection from peers.

According to Vygotsky, learning occurs in a social and cultural context when students interact with others who are more knowledgeable, such as teachers, parents, or classmates (Vygotsky, 1978). Peer support is crucial for effective learning, particularly for foreign language students due to the wide array of tools available (Gardner, 1985; MacIntyre & Gregersen, 2012). Previous studies suggest that learning a new language may be a lot more enjoyable with the support of classmates and professors (Khajavy et al., 2018).

Enjoyment

Enjoyment is a powerful positive emotion characterized by a sense of fulfillment and satisfaction derived from engaging in activities (Ainley, 2017; Pavelescu & Petrić, 2018). In the context of positive psychology, enjoyment is specifically defined as the subjective sense of well-being experienced when undertaking challenging or novel tasks (Csikszentmihalyi & Csikszentmihalyi, 1990). Building on a decade of growing interest in positive emotions, particularly pleasure, MacIntyre and Gregersen (2012) were pioneers in introducing positive psychology into the field of second language acquisition (SLA) research (Dewaele & MacIntyre, 2014; Dewaele et al., 2018). Foreign Language Enjoyment (FLE), as a multifaceted emotion, arises from the balance between perceived competence and the difficulty of the task at hand, reflecting the innate human aspiration to overcome challenges and succeed (Dewaele & MacIntyre, 2016). To measure FLE, Dewaele and MacIntyre (2014) developed a 21-item Foreign Language Enjoyment Scale, which evaluates learners' positive emotions in relation to learning environments, peers, and teachers. Over time, this scale was refined to 14 items, revealing two distinct dimensions: FLE-social and FLE-private (Dewaele & MacIntyre, 2016).

Positive emotions, such as enjoyment, expand individual learners' horizons and foster resource construction, enhancing their ability to focus on L2 input (MacIntyre & Gregersen, 2012; Mackey, 2006). On the other hand, achievement emotions, based on the foundations of positive psychology, play a pivotal role in foreign language enjoyment (Fredrickson, 2001; Pekrun, 2006). Similarly, according to Pekrun's (2006) three-dimensional taxonomy of accomplishment emotions (Jin & Zhang, 2018), pleasure activates the system that guides promising academic endeavors. Studies have focused on the factors influencing first language acquisition, considering internal factors such as gender, age, emotions, motivation, and language proficiency, as well as external factors like instructors, classmates, and the classroom setting (Dewaele et al., 2018; Dewaele & Dewaele, 2017; Fang & Tang, 2021; Li et al., 2014; Wang, 2022).

According to research conducted by Shao et al. (2020), looking at FLE from the perspective of positive psychology acts as a motivator and enhances the desire to learn a foreign language. The findings of Saito et al. (2018) support

this idea, showing that students' FLE is positively correlated with their FLE, FLE frequency, and academic performance. Moreover, research by Jin and Zhang (2018) with 320 high school ESL students revealed a direct correlation between FLE and ESL proficiency, with the enjoyment of learning a foreign language (FLE) indirectly impacting language achievement via the joy of learning the language. According to a study conducted by Liu and Hong (2021) with 709 students from Chinese primary and secondary schools, students' perception of classroom pleasure played a role in encouraging them to pay attention, be active, and be open to learning English.

Anxiety

In EFL settings, students commonly encounter varying degrees of language anxiety, which can detrimentally impact their language acquisition endeavors (Chen & Chang, 2004). Earlier investigations on anxiety and language learning produced conflicting results, with some studies indicating a negative relationship (Papi & Khajavy, 2023), some suggesting a positive association (Zheng & Cheng, 2018), and a few reporting no significant link between anxiety and language learning outcomes (Wu, 2010). To attain more consistent results, subsequent research focused on this area more specifically. Pioneering works by Horwitz et al. (1986), Young (1991), and MacIntyre and Gardner (1986) shed light on the prevalence of foreign language anxiety among learners of English. However, inquiries consistently unveiled a moderate negative correlation between language anxiety and language learning achievement, particularly as elucidated by Horwitz (2001). A critical and interdisciplinary examination of language anxiety was undertaken in a study by De Costam (2015), further enriching the scholarly discourse in this domain.

Some scholars have categorized anxiety into two distinct types. Facilitative anxiety is regarded as beneficial, enhancing performance, while debilitating anxiety is viewed as detrimental, often leading to decreased performance. Anxious thoughts have been observed to disrupt cognitive control (Bellinger et al., 2018). According to Ando (1999), facilitative anxiety is linked to positive performance outcomes, while debilitating anxiety arises from negative expectations and tends to impair performance. When educators encounter anxious students, it is imperative to discern whether their anxiety is genuinely hindering their progress. This notion is supported in Backman's investigation (mentioned in Motallebzadeh et al., 2020), where individuals with varying levels of linguistic proficiency exhibited contrasting anxiety scores.

Additionally, Von Worde (1998) and Young (1990) propose that anxiety can either enhance or impair performance, termed *facilitating anxiety* and *debilitating anxiety*, respectively. Bailey (1983) suggests that facilitative anxiety may aid in the success of second language learners. On the other hand, the crippling consequences of worry are the primary focus of this research.

In a study examining the relationship between EFL students' test anxiety and variables including gender, academic achievement, and years of study within the Iranian educational context, Rezazadeh and Tavakoli (2009) found that students' levels of test anxiety were greater for female students. However, they found no correlation between the length of the study and students' levels of test anxiety (Rezazadeh & Tavakoli 2009). Furthermore, research by Dewaele and MacIntyre (2014) found that female students had higher anxiety levels while learning a foreign language.

Growth mindset

Dweck (1999) identifies a continuum of attitudes that impact students' reactions to learning difficulties, ranging from a fixed mindset to a development mindset. This spectrum illustrates that people's perspectives may vary in different parts of their lives. Take baseball as an example; a student could have a fixed mentality regarding their academic talents but a developed attitude regarding their athletic pursuits. According to the theory of the fixed mentality, by Dweck (1999), Dweck (2006), and Mueller and Dweck (1998), intelligence is considered permanently fixed. Individuals with a fixed mindset, regardless of their academic background, often interpret setbacks as reflections of their innate intellectual capabilities. Furthermore, when their endeavors do not yield the desired results, they may experience increased negative emotions and ascribe their failures to their inherent lack of intelligence (Dweck, 2006).

Students with a fixed attitude are more likely to see the achievements of their classmates as competition and less likely to listen to criticism (Saunders, 2013). Instead of taking responsibility for their mistakes, they blame other people or things, such as lousy instruction or missing information in their study materials. People with a fixed mentality tend to blame others or external factors for their failures rather than their own lack of talent or effort (Dweck, 2006).

In contrast, students with a growth mindset believe that intelligence was adaptable and subject to change, recognizing that failures were opportunities for learning and development. They attributed significance to the effort, viewing setbacks as catalysts for further growth and learning (Blackwell et al., 2007; Plaks & Stecher, 2007). Over time, their resilience and determination propelled them toward success (Dweck, 1999; Dweck, 2006). Additionally, those with a growth mindset actively sought and utilized constructive feedback to enhance their skills, drawing inspiration from the achievements of others (Saunders, 2013). Even in the face of negative feedback, Dweck (2006) observed improvements among growth mindset students, who refrained from externalizing blame for their failures and instead focused on strategies for improvement in subsequent endeavors. Notably, mere praise to bolster self-esteem did not necessarily translate into increased motivation or academic achievement. Instead, feedback from educators held the power to shape students' perceptions of themselves, their drive, and their academic performance (Dweck, 2006). Moreover, excessive praise could inadvertently signal to students that their teachers underestimated their potential (Dweck, 1999).

Hartmann (2013) suggested that students in special education programs often exhibited a more fixed mindset than their peers without special needs. Particularly, those receiving support for specific learning disabilities faced challenges in achieving academic success at the same level as their typically developing counterparts (Frederickson et al., 2007). These students frequently encounter academic setbacks, leading to familiarity with receiving substandard grades (Hartmann, 2013). This repeated exposure to failure contributes to a mindset where students perceive their worth as closely tied to their performance outcomes. Consequently, they prioritized their grades over acquiring knowledge (Hartmann, 2013).

Amidst the growing interest in the pedagogical and psychological dimensions of peer support, gaps persist in delineating its precise definition and elucidating its impact within educational settings. Despite being acknowledged as a fundamental aspect of social support, the conceptualization of peer support remains elusive, necessitating a more profound exploration to understand its origins, structure, and functional implications. Additionally, while existing literature highlights the manifold benefits of peer support, particularly in fostering academic and emotional support among students, its specific effects on foreign language learning anxiety, language learning achievements, growth mindsets, and academic enjoyment warrant further investigation. Therefore, this study aims to discover whether peer support affects foreign language achievement, anxiety, enjoyment, and growth mindset. By examining these interrelations, this study provides empirical evidence to further our understanding of the multifaceted role of peer support in EFL education and to provide practical insights for various stakeholders striving to create supportive learning environments conducive to EFL learners' achievement.

Method

Design

The present study employs a sequential exploratory mixed-methods approach to investigate the multifaceted effects of peer support on foreign language learning anxiety, language learning achievements, growth mindsets, and academic enjoyment among learners. The research design involves an initial qualitative phase to explore the subjective experiences and perceptions of peer support among language learners through in-depth interviews and observation. Subsequently, the quantitative phase utilizes teacher-made tests to assess the relationships between peer support and the variables mentioned above, thereby corroborating and extending the findings obtained from the qualitative phase. Through the integration of qualitative and quantitative methods, this sequential exploratory mixed-methods approach enables a comprehensive understanding of the complexities surrounding peer support in foreign language education, offering valuable insights for theory-building and informing educational practice.

Participants

The participants in this study comprised two intact classes, each consisting of 27 undergraduate students from a university in Iran. According to Riazi (2016), "intact classes" refer to pre-existing groups of students that are used as a whole in a study, rather than randomly assigning individual students to different groups. These students were randomly assigned to either an experimental or a control group to ensure the study's internal validity. The participants were recruited through announcements made in their respective classes, inviting students to voluntarily participate in the study. Inclusion criteria required participants to be monolingual Persian speakers, aged between 18 and 20 years old, and enrolled in the same academic program. Additionally, all participants had to be at an intermediate level of English proficiency, as determined by the Oxford Quick Placement Test (OQPT), to ensure homogeneity in language proficiency levels across both groups. Exclusion criteria included any prior experience with bilingualism or foreign travel, as these factors could influence language learning anxiety and achievement. Gender distribution was balanced, with half of the participants being male and the other half female, to avoid gender bias in the study's outcomes. These selection criteria aimed to establish a consistent baseline for language proficiency and demographic characteristics across both groups, facilitating meaningful comparisons of the effects of peer support on foreign language learning outcomes.

Instruments and data collection procedures

The instruments utilized in this study were chosen to comprehensively assess the effects of peer support on various dimensions of foreign language learning. To ensure that all participants' language proficiency levels were consistent, the Oxford Quick Placement Test (OQPT) was administered. This standardized test confirmed that all participants were intermediate learners, providing a reliable baseline for the study (Geranpayeh, 2003).

Semi-structured interviews regarding academic enjoyment and foreign language anxiety were conducted, adapted from previous research (Horwitz et al., 1986). These interviews allowed for a detailed exploration of learners' subjective experiences in these domains. The reliability of the interview data was enhanced through inter-rater reliability checks, where multiple researchers independently coded the data and reached a consensus on the themes.

Additionally, a semi-structured interview adapted from prior literature (Rammstedt et al., 2024) was employed to investigate the impact of peer support on mindsets. This tool enabled a nuanced understanding of learners' beliefs and attitudes towards language learning challenges. The validity of these interviews was ensured through pilot testing and expert review, which confirmed that the questions effectively captured the constructs of interest.

The textbook used throughout the semester was Touchstone 4 (McCarthy et al., 2014), providing a standardized curriculum for both the experimental and control groups. This consistency in instructional material helped control for

external variables that could influence the study's outcomes.

Furthermore, to measure the effect of peer support on academic achievement, two teacher-made tests were administered, one as a pretest and the other as a post-test. These tests were adapted from Ahmed Abdel-Al Ibrahim and Hashemifardnia (2024). Three Ph.D. holders in English Language Teaching corroborated the content validity of these tests, ensuring they accurately assessed the intended learning outcomes. The reliability of the instruments was established with Cronbach's alpha coefficients of .821 for the pretest and .834 for the post-test, indicating high internal consistency (Tavakol & Dennick, 2011).

It should be noted that written informed consent was obtained from all the participants prior to the commencement of the study, ensuring that they were fully aware of the research objectives and procedures. There were no ethical concerns or conflicts of interest associated with this research. Given the study's focus on evaluating educational methods or practices, rather than testing new medical interventions or substances, the potential risks to the participants were minimal or nonexistent. Consequently, formal approval from an ethics review board was not deemed necessary.

Interventions

The study's interventions were designed to evaluate the impact of peer support on EFL learners. In the experimental group, a structured peer support system was implemented, while the control group followed traditional teacher-centered instruction without any peer support component. To ensure effective peer interaction, the experimental group was divided into six smaller groups, each tasked with collaborative learning activities both during class sessions and outside of class for assignments and homework.

During class, the experimental group engaged in a variety of peer-supported activities. For instance, students worked in pairs or small groups to practice conversational skills through role-plays, debates, and group discussions on course-related topics. These tasks encouraged peer feedback and allowed students to help each other with language challenges, fostering a collaborative environment. The structured peer activities also aimed at clarifying concepts and sharing diverse perspectives, which helped to strengthen students' understanding and retention of the language material.

Beyond the classroom, the experimental group continued to work collaboratively on assignments and homework. They participated in group projects, peer-edited written work, and practiced oral language skills through virtual meetings or in-person study sessions. These out-of-class interactions were designed to further reinforce language acquisition, build confidence, and promote a sense of responsibility toward their peers. By sharing their knowledge and providing mutual support, students could take a more active role in their learning, benefiting from both individual and collective insights.

In contrast, the control group followed a more traditional, teacher-led instructional model. Lessons were structured around lectures, teacher-guided activities, and individual work. While students in the control group received feedback from the teacher, there were no formal opportunities for peer support or collaborative learning. The instructional environment emphasized teacher-directed learning, which limited peer interaction and focused primarily on individual student outcomes.

The peer support interventions in the experimental group were intended to foster a collaborative learning atmosphere, where students could engage deeply with the language through mutual assistance and shared learning experiences. By involving students in peer support activities both inside and outside the classroom, the intervention aimed to reduce language anxiety, improve academic enjoyment, and enhance language proficiency while cultivating growth mindsets and a sense of community among learners.

Data analysis procedures

This data analysis for this study involved both quantitative and qualitative analyses. For the qualitative component, a rigorous thematic analysis was employed to examine data from semi-structured interviews and observations (Flick, 2013). The process began with meticulous transcription of the interviews, ensuring accuracy and capturing nuanced details. To enhance reliability, inter-rater reliability was established by having multiple researchers independently code a subset of the data and then compare their coding to reach a consensus. The transcripts were thoroughly reviewed, and initial codes were assigned to segments of the data that revealed meaningful patterns or emerging themes, such as academic engagement, growth mindsets, concerns about learning a new language, and peer support. These codes were systematically refined through multiple iterations, ensuring consistency and relevance. The coded data were then organized into broader themes and subthemes, which enabled a comprehensive exploration of participants' experiences. This iterative process of coding, categorizing, and theme refinement allowed for a rich, in-depth understanding of the participants' diverse perspectives, providing a nuanced and holistic interpretation of the qualitative data.

For the quantitative part, independent samples t-tests were applied to compare the two groups' levels of peer support. This statistical analysis shed light on how well the peer support intervention worked by comparing the two groups' mean scores on essential factors. To further understand the role of peer support, the t-test compared the two groups to see whether there were any statistically significant changes in outcomes like academic satisfaction, worry about learning a new language, and growth mindsets.

It is worth noting that to deepen the understanding of the effects of peer support on learning a foreign language, this research employed triangulation by integrating qualitative thematic analysis with quantitative statistical analysis. Triangulation involves using multiple data sources, methods, or perspectives to validate and enrich the findings, ensuring

a more robust and well-rounded interpretation (Riazi, 2016). In this study, the qualitative data from interviews and observations were cross-referenced with the quantitative results from surveys and assessments, allowing for a comprehensive analysis. This mixed-methods approach enabled a nuanced understanding of the mechanisms and outcomes of peer support in language learning, as the convergence of different data points offered both depth and breadth to the findings, enhancing the credibility and reliability of the conclusions drawn.

Results

Effect of peer support on academic enjoyment

In the semi-structured interviews conducted with the participants from the experimental group, several themes emerged regarding their experiences of academic enjoyment in the context of peer support. Firstly, the majority of the participants expressed heightened enjoyment and engagement during collaborative learning activities facilitated by peer interactions. For example, one participant noted, *"Working with my peers made learning more fun and interesting. We could bounce ideas off each other and solve problems together, which made learning enjoyable."* This sentiment was echoed by several others, highlighting the positive impact of peer support on their overall learning experience.

Furthermore, the participants reported greater motivation and satisfaction when working collaboratively with their peers on assignments and homework tasks. They described how the opportunity to share ideas, receive feedback, and collaborate with classmates enhanced their understanding of course material and fostered a sense of accomplishment. One participant remarked, *"I felt more motivated to do my homework when I could discuss it with my peers. It made me feel like we were all in it together, and that camaraderie made learning more enjoyable."*

Additionally, the participants emphasized the importance of supportive relationships with their peers in contributing to their academic enjoyment. Many described feeling a sense of camaraderie and belonging within their peer groups, which positively influenced their attitude towards learning. They noted how encouragement and positive reinforcement from their peers helped alleviate feelings of stress and anxiety, making the learning process more enjoyable and rewarding. One participant shared, *"Knowing that my peers were there to support me and cheer me on gave me the confidence to take on challenges and enjoy the learning process."*

Conversely, the participants from the control group who did not have access to structured peer support interventions reported different experiences regarding academic enjoyment. The majority of the participants described feeling isolated and disconnected from their peers during class sessions, negatively impacting their learning enjoyment. One participant lamented, *"In our class, it was mostly just the teacher talking, and there wasn't much opportunity to interact with my classmates. It felt lonely, and I didn't enjoy it as much."*

Furthermore, the participants expressed a lack of motivation and engagement in their learning experiences, citing the absence of peer interaction and collaboration as contributing factors. They described how the passive nature of teacher-fronted instruction left them feeling disengaged and uninspired. One participant explained, *"Without peer support, I didn't feel as motivated to participate in class or do my homework. It felt like I was going through the motions without real enjoyment."*

Moreover, the participants highlighted the importance of social connections and supportive relationships in fostering academic enjoyment. Many desired opportunities to interact with peers and collaborate on assignments and projects. They noted how the absence of peer support limited their ability to learn from each other and share ideas, resulting in a less enjoyable learning experience overall. One participant said, *"I think learning would be more enjoyable if we had more chances to work together and support each other. It's hard to feel excited about learning when you're just listening to the teacher constantly."*

The observations conducted during class sessions provided valuable insights into the effect of peer support on academic enjoyment. In the experimental group, where peer support was encouraged, students were observed to be more actively engaged and enthusiastic about their learning tasks. They participated eagerly in group discussions, collaborated effectively with their peers, and exhibited a positive attitude toward their studies.

Moreover, the observations highlighted the supportive and inclusive nature of peer interactions within the experimental group. Students were observed encouraging and empathetic towards their classmates, offering assistance and feedback when needed. This camaraderie and mutual support contributed to a positive and enjoyable learning environment where students felt valued and respected by their peers.

In contrast, observations in the control group, where peer support was not implemented, revealed a less dynamic and interactive classroom atmosphere. Students were observed to be more passive and reliant on the teacher for guidance, with fewer opportunities for peer interaction and collaboration. As a result, the classroom environment appeared more formal and teacher-centered, lacking the sense of community and engagement observed in the experimental group.

In general, the results of the semi-structured interviews were corroborated by the observations, showing that the experimental group's students benefited greatly from peer support when it came to enjoying their academic work. Learners reported higher levels of motivation, engagement, and contentment due to the cooperative and encouraging atmosphere created by their classmates' interactions.

Several themes emerged for both groups based on the interviews and observation results.

Experimental Group:

1. **Enhanced Engagement:** The participants in the experimental group consistently expressed heightened engagement and enjoyment in their language learning experiences. They described feeling more motivated and enthusiastic about attending classes and participating in activities. Many attributed this increased enjoyment to the opportunities for peer interaction and collaboration provided by the intervention. For example, one participant remarked, *"Working with my peers made learning more fun and interesting. I looked forward to our group discussions and activities because they were engaging and interactive."*
2. **Positive Social Interaction:** Another prominent theme among participants in the experimental group was the positive impact of peer support on social interaction within the classroom. Many students noted that working with their peers facilitated their language learning and fostered a sense of camaraderie and community. They described enjoying the opportunity to exchange ideas, share experiences, and build relationships with classmates. One participant stated, *"I enjoyed the group work because it helped me connect with my classmates. We supported each other and learned from each other's perspectives, which made the learning process more enjoyable."*
3. **Sense of Achievement:** The participants in the experimental group also reported experiencing a heightened sense of achievement and satisfaction in their language learning progress. They described feeling proud of their accomplishments and motivated to continue improving. Many attributed this sense of achievement to the collaborative learning environment fostered by the intervention, where they could receive feedback and support from their peers. For instance, one participant mentioned, *"Working with my peers helped me feel more confident in my abilities. I could see my progress and felt a sense of accomplishment when I achieved my learning goals."*

Control Group:

1. **Limited Engagement:** In contrast to the experimental group, the participants in the control group reported experiencing less engagement and enjoyment in their language learning experiences. Many described feeling bored or disinterested during class sessions, remarkably when limited to teacher-fronted instruction. Some of the participants expressed frustration with the lack of opportunities for interaction and collaboration with their peers, which they perceived as hindering their motivation and enjoyment. One participant lamented, *"I didn't enjoy the classes as much because it felt like I was just listening to the teacher without actively participating. It was*

hard to stay engaged."

2. **Social Isolation:** Another prominent theme among the participants in the control group was a sense of social isolation within the classroom. Many students felt disconnected from their peers and lacked a sense of belonging in the learning environment. They described missing the sense of community and camaraderie they observed in the experimental group. Some of the participants mentioned feeling lonely or isolated during class sessions, negatively impacting their motivation and enjoyment. One participant reflected, *"I felt like I was learning alone most of the time. There wasn't much interaction with my classmates, so it was hard to enjoy the learning process."*
3. **Lack of Progress:** The participants in the control group also reported feeling frustrated with their perceived lack of progress in their language learning journey. They described struggling to stay motivated and engaged when they didn't see tangible improvements in their language skills. Many desired more peer support and feedback to help them overcome challenges and achieve their learning goals. One participant said, *"I felt stuck in my learning. Without the support of my peers, it was hard to stay motivated and make progress."*

Themes from observations on foreign language anxiety:

1. **Increased Engagement:** Observations revealed a noticeable increase in student engagement and participation during peer support activities. Students in the experimental group appeared more enthusiastic and motivated, actively contributing to discussions, group work, and collaborative tasks. They demonstrated greater enjoyment and satisfaction in their learning experiences, as evidenced by their animated interactions and positive demeanor.
2. **Positive Social Dynamics:** The observation also highlighted the positive social dynamics fostered by peer support within the experimental group. Students exhibited strong camaraderie and teamwork, supporting and encouraging each other throughout the learning process. They appeared comfortable and relaxed in each other's presence, fostering a supportive and inclusive learning environment where all voices were valued and respected.
3. **Sense of Achievement:** Additionally, observations indicated that peer support contributed to a heightened sense of achievement and confidence among students in the experimental group. As they worked collaboratively to tackle challenges and overcome obstacles, students demonstrated increased self-efficacy and belief

in their abilities. They celebrated their successes and milestones together, reinforcing a positive cycle of motivation and achievement that propelled their learning forward.

Overall, the observations underscored the transformative impact of peer support on academic enjoyment, highlighting its role in fostering engagement, social connection, and a sense of accomplishment among language learners.

Effect of peer support on foreign language anxiety

The participants in the experimental group articulated a notable reduction in their experiences of foreign language anxiety following their engagement in the peer support intervention. They expressed newfound ease and confidence when engaging in language-related tasks, mainly speaking activities. This shift was attributed to the supportive atmosphere cultivated by peer interactions, where the participants felt encouraged to express themselves without fear of judgment. The majority of the participants highlighted the significance of having peers to practice with, noting that the collaborative learning environment provided a sense of safety and camaraderie that helped alleviate their anxiety. Additionally, the participants emphasized the positive impact of receiving feedback from their peers, which helped them identify areas for improvement and boosted their confidence in their language abilities. By engaging in peer-supported activities, the participants felt more empowered to take risks and embrace challenges, ultimately decreasing their overall levels of language anxiety.

Conversely, the participants in the control group described persistent challenges with foreign language anxiety throughout the study. They articulated nervousness, apprehension, and self-doubt when faced with language-related tasks, mainly speaking in front of others. Despite their efforts to prepare and practice independently, the majority of the participants expressed a sense of helplessness in managing their anxiety. The absence of peer support was identified as a significant factor contributing to their heightened levels of anxiety, as the participants felt isolated and unsupported in their language learning journey. Without the reassurance and encouragement of peers, the participants struggled to overcome their negative self-talk and feelings of inadequacy, which further exacerbated their anxiety. Overall, the participants in the control group continued to grapple with the debilitating effects of language anxiety, highlighting the importance of peer support in fostering a supportive learning environment conducive to anxiety reduction.

Observations of the experimental group revealed a notable increase in academic enjoyment and engagement among the participants. Students demonstrated high enthusiasm and participation during peer-supported activities, actively contributing to discussions, group projects, and collaborative tasks. Positive social dynamics were evident, with the participants engaging in supportive interactions, exchanging ideas, and demonstrating mutual respect and encouragement. The cooperative learning environment fostered a sense of community and belonging, contributing

to the participants' overall satisfaction and fulfillment in their academic experiences. Additionally, the participants exhibited a sense of achievement and pride in their academic accomplishments, celebrating their successes and demonstrating confidence in their abilities to overcome challenges and achieve their goals.

In contrast, observations of the control group indicated lower levels of academic enjoyment and engagement among the participants. Students appeared less enthusiastic and involved during class activities, often displaying signs of disinterest or apathy. Social interaction was limited, with the participants engaging in minimal communication or collaboration with their peers. The absence of peer support and interaction contributed to isolation and disengagement within the classroom. The participants exhibited decreased satisfaction and motivation in their academic experiences, expressing frustration or dissatisfaction with their performance. Overall, the participants in the control group demonstrated a less positive attitude toward learning, characterized by a lack of enjoyment, fulfillment, and achievement.

Themes from semi-structured interviews on foreign language anxiety

1. **Peer Support as Anxiety Alleviator:** The participants across both the experimental and control groups highlighted the role of peer support in mitigating foreign language anxiety. Those in the experimental group emphasized the positive impact of collaborative learning environments facilitated by peer interactions, which provided reassurance, encouragement, and opportunities for shared experiences. In contrast, the participants in the control group expressed a desire for more incredible peer support and interaction to help manage their anxiety effectively.
2. **Negative Self-Talk and Self-Doubt:** A prevalent theme among the participants was the presence of negative self-talk and self-doubt as significant contributors to foreign language anxiety. The participants described experiencing intrusive thoughts, self-criticism, and feelings of inadequacy, which undermined their confidence and increased their anxiety levels. Many of the participants expressed a need for strategies to challenge and overcome negative self-talk to improve their language learning experiences.
3. **Fear of Judgement and Evaluation:** The participants articulated a fear of judgment and evaluation as a primary source of anxiety in language learning contexts. They expressed concerns about making mistakes, being perceived as incompetent, or facing criticism from peers and instructors. The pressure to perform well and meet academic expectations exacerbated their anxiety levels, leading to avoidance behaviors and decreased engagement in language-related tasks.

Themes from observations on foreign language anxiety

1. **Differential Engagement Levels:** Observations revealed differences in engagement levels between the experimental and control groups, with the participants in the experimental group demonstrating higher levels of active participation and involvement in language-related activities. The collaborative nature of peer-supported tasks facilitated increased the participants' engagement and interaction, contributing to a more positive and supportive learning environment.
2. **Social Interaction and Support:** The participants in the experimental group exhibited more significant social interaction and support than those in the control group. Peer interactions were characterized by mutual encouragement, assistance, and camaraderie, creating a sense of belonging and community within the classroom. In contrast, the participants in the control group appeared more reserved and isolated, lacking opportunities for social connection and peer support.
3. **Confidence and Self-Efficacy:** The participants in the experimental group demonstrated higher levels of confidence and self-efficacy in their language abilities than those in the control group. The positive feedback and encouragement from peers during collaborative tasks bolstered the participants' confidence and belief in their linguistic skills, increasing their willingness to take risks and participate actively in language learning activities. Conversely, the participants in the control group exhibited lower levels of confidence and self-assurance, struggling with self-doubt and apprehension in their language-learning endeavors.

Overall, the themes identified from the interviews and observations underscored the complex interplay between peer support, negative self-talk, fear of judgment, engagement levels, social interaction, confidence, and self-efficacy in shaping foreign language anxiety experiences among the participants.

Effect of peer support on mindsets

The participants in the experimental group provided insightful reflections on their attitudes toward learning and the concept of growth mindsets. The majority of the participants demonstrated a growth mindset perspective, emphasizing that intelligence and abilities are malleable and can be developed through effort, practice, and perseverance. They expressed a willingness to embrace challenges, view failures as opportunities for learning, and seek feedback to improve. The participants described instances where they actively sought new learning experiences, challenged themselves to expand their skills, and demonstrated resilience in the face of setbacks. Moreover, the participants

emphasized the importance of adopting a growth mindset in their language learning journey, recognizing its role in fostering motivation, resilience, and academic achievement. Overall, the participants in the experimental group exhibited a positive and adaptive approach to learning, characterized by a growth mindset orientation.

Conversely, the participants in the control group demonstrated a more fixed mindset perspective toward learning and academic challenges. Many of the participants believed that intelligence and abilities are fixed and inherent traits, leading to a fear of failure and a reluctance to take risks. The participants tended to avoid challenges, interpret setbacks as evidence of their limitations, and rely on external factors to determine their success. Additionally, the participants described feeling discouraged by negative feedback and perceived failures, leading to a sense of helplessness and self-doubt. The prevalence of a fixed mindset orientation hindered the participants' motivation, resilience, and willingness to engage in learning activities. Overall, the participants in the control group exhibited a less adaptive approach to learning, characterized by a fixed mindset orientation that impeded their growth and development.

Taken together, the participants in the experimental group demonstrated a growth mindset orientation characterized by a belief in the potential for growth and development through effort and perseverance. In contrast, the participants in the control group exhibited a fixed mindset orientation marked by a belief in innate abilities and a reluctance to embrace challenges. These findings highlight the importance of fostering a growth mindset perspective in promoting motivation, resilience, and academic achievement among language learners.

During observations of the experimental group, the participants exhibited behaviors indicative of a growth mindset orientation toward learning and academic challenges. Many of the participants were willing to embrace challenges and view failures as opportunities for growth and learning. They actively sought out new learning experiences, engaged in problem-solving tasks, and persisted in their efforts despite setbacks. The participants displayed resilience in the face of obstacles, demonstrating a positive attitude towards overcoming challenges and expanding their skills. Moreover, the participants exhibited a receptiveness to feedback and constructive criticism, using it as a means of self-improvement and skill development. Overall, the participants in the experimental group displayed adaptive behaviors consistent with a growth mindset orientation, characterized by a belief in the potential for growth and development through effort and perseverance.

In contrast, observations of the control group revealed behaviors indicative of a fixed mindset orientation towards learning and academic challenges. The participants were reluctant to embrace challenges and feared failure, often avoiding tasks or activities perceived as difficult or risky. They attributed their successes and failures to innate abilities rather than effort or perseverance. The participants were more likely to give up easily when faced with obstacles, showing a lack of resilience and persistence in their learning

endeavors. Additionally, the participants resisted feedback and constructive criticism, viewing it as a reflection of their abilities rather than an opportunity for growth. Overall, the participants in the control group displayed maladaptive behaviors consistent with a fixed mindset orientation, characterized by a belief in innate abilities and a reluctance to engage in challenging tasks.

Themes from interviews and observations on growth mindset

1. Growth Mindset Orientation:

- The participants in the experimental group demonstrated a growth mindset orientation, characterized by a belief in the potential for growth and development through effort and perseverance.
- They exhibited behaviors such as embracing challenges, viewing failures as opportunities for learning, and persisting in the face of obstacles.
- The participants displayed resilience, receptiveness to feedback, and a willingness to seek new learning experiences.

2. Fixed Mindset Orientation:

- The participants in the control group exhibited a fixed mindset orientation, marked by a belief in innate abilities and a reluctance to embrace challenges.
- They demonstrated behaviors such as avoiding tasks perceived as complex, attributing success and failure to inherent traits, and giving up easily when faced with obstacles.
- The participants resisted feedback and constructive criticism, viewing it as a reflection of their abilities rather than an opportunity for growth.

3. Effort and Persistence:

- A prominent theme across both groups was the role of effort and persistence in shaping mindset orientations.
- The participants in the experimental group emphasized the importance of effort and perseverance in achieving academic success and personal growth.
- In contrast, the participants in the control group were more likely to attribute success and failure to fixed factors such as innate abilities, leading to a lack of motivation and resilience.

4. Response to Challenges:

- Another notable theme was the participants' responses to challenges and setbacks.
- Those with a growth mindset orientation demonstrated a positive attitude towards challenges, viewing them as opportunities for learning and growth.
- In contrast, the participants with a fixed mindset orientation exhibited avoidance behaviors and a fear of failure, hindering their willingness to engage in challenging tasks.

5. Feedback and Learning:

- The theme of feedback and its impact on learning emerged from interviews and observations.
- The participants with a growth mindset orientation were receptive to feedback, using it as a tool for self-improvement and skill development.
- Conversely, the participants with a fixed mindset orientation resisted feedback, viewing it as a threat to their self-image and abilities.

These themes highlight the importance of mindset orientations in shaping individuals' attitudes toward learning, effort, and resilience. They underscore the need for interventions to foster a growth mindset perspective to promote motivation, persistence, and academic achievement among language learners.

Effect of peer support on academic achievement

To investigate the impact of peer support on academic achievement, the authors conducted a series of statistical analyses. Initially, we performed a Kolmogorov-Smirnov test to assess the normality of data distribution. The results confirmed that both pre-test and post-test data were normally distributed ($p > .05$), satisfying the assumption for parametric testing. The authors then conducted independent samples t-tests to compare the EG and CG at both pre-test and post-test stages. Table 1 presents the results of the pre-test comparison.

Table 1. Results of the independent samples test on the pre-test.

	Group	N	Mean	Std. Deviation	Std. Error Mean	F	Sig.	t	df	Sig. (2-tailed)
Pretest	EG	27	2.88	1.31	.25	.00	.93	.72	52	.47
	CG	27	2.62	1.30	.25		1			

*Note. * EG = Experimental Group; CG = Control Group; M = Mean; SD = Standard Deviation; SE = Standard Error Mean.

The pre-test results revealed comparable performance between the experimental group ($n = 27$, $M = 2.88$, $SD = 1.31$) and the control group ($n = 27$, $M = 2.62$, $SD = 1.30$). The independent samples t-test indicated no significant difference between the two groups at the outset of the study, $t(52) = 0.72$, $p = .47$. This finding establishes that both groups started at a similar baseline level of academic achievement, ensuring a valid comparison of the intervention's effects. Following the intervention period, we conducted a post-test to assess the impact of peer support. Table 2 presents the results of this analysis.

Table 2. Results of the independent samples test on the post-test.

	Group	N	Mean	Std.	Std.	F	Sig.	t	df	Sig.
				Deviation	Error Mean					
Post-test	EG	27	13.11	3.00	.57	11.49	.00	15.77	52	.00
	CG	27	3.14	1.32	.25					

*Note. * EG = Experimental Group; CG = Control Group; M = Mean; SD = Standard Deviation; SE = Standard Error Mean.

The post-test results revealed a substantial improvement in the experimental group's performance ($n = 27$, $M = 13.11$, $SD = 3.00$) compared to the control group ($n = 27$, $M = 3.14$, $SD = 1.32$). The independent samples t-test demonstrated a statistically significant difference between the two groups, $t(52) = 15.77$, $p < .001$. The magnitude of this difference was further quantified by calculating the effect size, which was found to be large ($\eta^2 = 0.23$). These findings provide compelling evidence for the efficacy of peer support in enhancing academic achievement among EFL learners. The experimental group, which received peer support, demonstrated a remarkable improvement in their performance, with their mean score increasing from 2.88 in the pre-test to 13.11 in the post-test. In contrast, the control group showed only a marginal improvement, with their mean score increasing from 2.62 to 3.14.

The large effect size ($\eta^2 = 0.23$) underscores the practical significance of these results, indicating that peer support accounts for 23% of the variance in academic achievement between the two groups. This substantial effect suggests that peer support is not only statistically significant but also educationally meaningful in its impact on EFL learners' academic performance. These results align with previous research highlighting the benefits of collaborative learning environments in language acquisition (citation needed). The peer support intervention likely facilitated a more engaging and interactive learning experience, potentially enhancing motivation, providing opportunities for language practice, and fostering a supportive learning community.

Discussion

This research elucidates several essential aspects of second language acquisition, including language learning anxiety, academic success, growth mindsets, and academic enjoyment. According to the study's findings, peer support significantly reduced anxiety in language acquisition compared to the control group. This aligns with previous

studies indicating that supportive peers can help reduce anxiety and create a positive learning atmosphere. Students may experience a more pleasant learning environment when they have friends who provide emotional support, encouragement, and shared experiences, thereby reducing the anxiety associated with language learning activities. However, it is essential to consider alternative explanations, such as the possibility that students with lower anxiety levels are more likely to seek and receive peer support, rather than peer support being the direct cause of reduced anxiety.

Participants who received peer assistance also showed a significant increase in academic success, confirming findings from other studies that collaborative learning can enhance academic performance. The experimental group demonstrated improved learning outcomes due to increased information sharing, broader viewpoints, and mutual support fostered through in-class and extracurricular collaborative activities. Nonetheless, it is crucial to critically examine whether other factors, such as the students' initial motivation levels or the quality of peer interactions, might have contributed to these outcomes.

Additionally, there was a noticeable shift in mindset orientations between the control and experimental groups. Members of the experimental group exhibited a growth mindset, characterized by the belief that one can improve through effort and perseverance. In contrast, the control group displayed a fixed mindset, viewing intelligence and talents as static traits. These results underscore the importance of fostering a growth mindset to enhance motivation, resilience, and academic success among language learners. However, it is worth considering whether the observed mindset shift was influenced by other variables, such as the students' prior experiences or the specific instructional methods used in the study.

Furthermore, the study's findings demonstrated that peer support positively affects academic satisfaction. Participants in the test group were more invested, had more pleasant interactions with others, and felt more accomplished due to their education. In contrast, those in the control group were less invested and had less social contact, translating to less happiness and drive. These results highlight the importance of peer support in creating a welcoming and positive classroom environment. However, it is important to consider alternative explanations, such as the possibility that students who are naturally more sociable and motivated might be more inclined to engage in peer support activities, rather than peer support being the direct cause of increased academic satisfaction.

This study's results have important implications for understanding the literature on growth mindset, pleasure, anxiety, and peer support in the context of second language acquisition. According to the literature, students of foreign languages greatly benefit from the emotional and intellectual support they receive from their peers (Gardner, 1985; MacIntyre & Gregersen, 2012). Our results complement these findings by showing that students in the peer support group fared better academically than those in the control group and reported significantly less anxiety about learning the language. Peers foster a conducive learning environment

by providing emotional support, academic assistance, and guidance (Ghaith, 2002; Johnson & Johnson, 1983; Kim et al., 2018). However, it is crucial to critically examine whether other factors, such as the initial levels of anxiety or the quality of peer interactions, might have influenced these outcomes.

The research on enjoyable foreign language acquisition supports our findings, which show that positive emotions favor motivation and academic achievement (MacIntyre & Gregersen, 2012; Mackey, 2006). Members of the experimental group were more satisfied, engaged, and enjoyed their academic experiences more than the control group. To improve language learning outcomes, it is essential to create a welcoming and enjoyable learning atmosphere (Khajavy et al., 2018; Jin & Zhang, 2018). Nonetheless, it is worth considering whether the observed increase in academic enjoyment could be attributed to other variables, such as the novelty of the peer support intervention or the specific dynamics of the experimental group.

Concerning anxiety, our results align with other studies showing a modest negative connection between worry about learning a language and actual proficiency in that language (Horwitz, 2001). Language anxiety was reduced in the experimental group compared to the control group, indicating that having supportive peers may assist in reducing anxiety and making learning more enjoyable (Chen & Chang, 2004). However, it is important to consider alternative explanations, such as the possibility that students with inherently lower anxiety levels are more likely to engage in peer support activities, rather than peer support being the direct cause of reduced anxiety. Additionally, the role of other factors, such as the overall classroom environment or individual differences in coping mechanisms, should be examined to fully understand the relationship between peer support and language anxiety.

The present study also provides insights into the role of a growth mindset in foreign language learning, as discussed in the literature review. Participants in the experimental group demonstrated a growth mindset orientation characterized by resilience, perseverance, and a belief in the potential for growth and development (Dweck, 1999; Dweck, 2006). In contrast, participants in the control group exhibited a fixed mindset orientation, attributing success and failure to innate abilities rather than effort. These findings underscore the importance of fostering a growth mindset perspective to promote motivation, resilience, and academic achievement among language learners (Blackwell et al., 2007; Plaks & Stecher, 2007). However, it is worth considering whether the observed mindset shift was influenced by other variables, such as prior educational experiences or the specific instructional methods used in the study. Additionally, the potential impact of cultural factors on mindset orientations should be explored to provide a more comprehensive understanding of these findings.

Overall, this study contributes to the existing literature by providing empirical evidence of the beneficial effects of peer support on various dimensions crucial to foreign language acquisition. By creating supportive learning environments, alleviating anxiety, promoting enjoyment, and fostering growth mindsets, peer support initiatives can potentially

enhance the overall learning experience for language learners. Educators and policymakers should consider implementing peer support programs and collaborative learning activities to maximize student engagement, motivation, and success in foreign language learning. However, future research should continue to explore the complex interplay of factors influencing these outcomes to develop more targeted and effective interventions.

Pedagogical implications

For language teachers, the findings of this study carry significant implications for instructional practices. Incorporating peer support initiatives into language classrooms can provide teachers with additional tools to create supportive learning environments that foster student collaboration, engagement, and academic success. Teachers can encourage peer interaction, collaboration, and mutual support by implementing group activities, collaborative projects, and peer tutoring sessions. Moreover, language teachers can benefit from training and professional development opportunities focused on strategies for promoting peer support and creating inclusive learning environments. By leveraging the positive effects of peer support on reducing language learning anxiety, enhancing academic enjoyment, and fostering growth mindsets, language teachers can effectively support their student's diverse needs and learning preferences.

For language learners, the implications of this study underscore the importance of actively engaging with peers to enhance their language learning experience. Learners can leverage peer support networks to seek assistance, share resources, and collaborate on learning tasks. By working collaboratively with peers, learners can improve their language proficiency and develop necessary socio-emotional skills such as communication, empathy, and teamwork. Additionally, learners can cultivate a growth mindset orientation by embracing challenges, persisting in the face of setbacks, and seeking constructive feedback from peers. Language learners can benefit from peer support initiatives inside and outside the classroom, fostering a sense of belonging, motivation, and academic enjoyment in their language learning journey.

For materials developers and syllabus designers, the findings of this study highlight the importance of integrating peer support activities into language learning materials and curriculum design. Developers can create engaging and interactive resources that promote peer interaction and support by incorporating collaborative learning tasks, group projects, and peer feedback mechanisms into language learning materials. Additionally, syllabus designers can design language courses that prioritize peer-supported learning experiences, providing opportunities for students to work together, share ideas, and learn from one another. By aligning materials and syllabi with the principles of peer support, developers and designers can enhance the effectiveness and relevance of language learning resources for diverse learners.

For policymakers, this study underscores the importance of recognizing and supporting peer support initiatives in language education policies and programs. Policymakers can advocate for the inclusion of peer support strategies in language education policies, curriculum guidelines, and teacher training programs. By investing in peer support initiatives, policymakers can promote student-centered approaches to language education that prioritize collaboration, inclusivity, and learner autonomy. Additionally, policymakers can allocate resources and funding to support research and development efforts focused on peer-supported language learning interventions. By fostering a supportive policy environment that values peer support in language education, policymakers can create inclusive and effective language learning ecosystems that empower learners and promote academic success.

Conclusions

The results of this study provided valuable insights into the intricate ways peer support influenced several aspects of second language acquisition, including academic achievement, growth mindsets, enjoyment of learning, and anxiety reduction in EFL learners. Through a sequential exploratory mixed-methods approach, we gained a comprehensive understanding of the dynamic interactions between peer relationships and language learning outcomes. Our research highlighted the significance of peer support in creating safe, collaborative learning environments that promoted participation, cooperation, and academic success among language students. Learners reported reduced anxiety and increased enjoyment in their academic pursuits following participation in peer support programs. Furthermore, language instructors could cultivate inclusive classrooms that prioritized students' social-emotional well-being and academic performance by fostering opportunities for collaboration and mutual support. The study also demonstrated that peer support interventions fostered growth mindsets, enabling learners to persevere through setbacks and view challenges in language learning more positively. Overall, this research contributed to the existing literature on peer-supported language learning, emphasizing the need for inclusive learning spaces that extend beyond traditional classroom dynamics. Acknowledging the critical role of peer support in language education could lead to more empowering and successful learning ecosystems that enhance both personal and academic growth.

Though this study has provided valuable insights into the influence of peer support on language learning anxiety, academic achievement, growth mindsets, and enjoyment among EFL learners, several limitations must be acknowledged before generalizing the findings. The first limitation lies in the small sample size and the specific context, as the study focused solely on Iranian university students. Therefore, caution is advised when applying these results to broader populations or different educational settings. Additionally, the study employed a sequential exploratory mixed-methods design, which, while offering a comprehensive view, may introduce certain biases inherent in combining qualitative and quantitative data. While the study focused on critical factors such as language

learning anxiety, academic achievement, growth mindsets, and enjoyment, further research could explore additional variables that may affect the success of peer support interventions. For example, cultural differences, individual learner characteristics, and variations in classroom dynamics may all play a significant role in moderating the effects of peer support on language learning outcomes. Investigating these aspects could provide a more nuanced understanding of how peer support functions across different contexts. Another limitation involves the reliance on self-report measures, such as questionnaires and interviews, to assess learners' experiences and outcomes. Although these tools offer valuable insights into learners' subjective perceptions, they are prone to biases such as memory recall errors and social desirability. Future research could enhance the validity of findings by incorporating objective measures, such as standardized tests or observational methods, to better capture the impact of peer support on language learning. Finally, the study primarily focused on in-class peer support interventions, neglecting to account for the potential influence of peer interactions outside the classroom or through online platforms. Future studies could expand the scope by investigating how peer support functions in digital environments, including online forums, social media, and virtual learning spaces, where learners may engage in peer collaboration and support beyond traditional classroom settings. This would provide a more comprehensive understanding of the various dimensions of peer support in language acquisition.

References

- Ahmed Abdel-Al Ibrahim, K., & Hashemifardnia, A. (2024). Bold techno competence in language learning: a study on the effects of efficacy of workshops in decreasing technostress and boosting academic enjoyment, autonomy, and language achievement. *Asian-Pacific Journal of Second and Foreign Language Education*, 9(1), 1-33. <https://doi.org/10.1186/s40862-024-00258-0>
- Aida, Y. (1994). Examination of Horwitz, Horwitz, and Cope's construct of foreign language anxiety: The case of students of Japanese. *The Modern Language Journal*, 78(2), 155-68. <https://doi.org/10.2307/329005>
- Ainley, M. (2017). Interest: Knowns, unknowns, and basic processes. In P. A. O'Keefe & J. M. Harackiewicz (Eds.), *The science of interest* (pp. 3-24). Springer International Publishing AG. https://doi.org/10.1007/978-3-319-55509-6_1
- Ando, M. (1999). *Distinctive language anxiety factors among college students: Toward the further development of measures and theories*. State University of New York at Buffalo.
- Bailey, K. M. (1983). Competitiveness and anxiety in adult second language learning: Looking at and through the diary studies. In H. W. Seliger & M. H. Long (Eds.), *Classroom-oriented research in second language* (pp. 67-102). Newbury House.
- Baillie, C. A., & Grimes, R. W. (1999). Peer tutoring in

crystallography. *European Journal of Engineering Education*, 24(2), 173-81. <https://doi.org/10.1080/03043799908923552>

Barrera, J. M., & Ainlay, S. L. (1983). The structure of social support: A conceptual and empirical analysis. *Journal of Community Psychology*, 11(2), 133-43. [https://doi.org/10.1002/1520-6629\(198304\)11:2%3C133::aid-jcop2290110207%3E3.0.co;2-I](https://doi.org/10.1002/1520-6629(198304)11:2%3C133::aid-jcop2290110207%3E3.0.co;2-I)

Bellinger, D. B., DeCaro, M. S., & Ralston, P. A. (2018). Mindfulness, anxiety, and high-stakes mathematics performance in the laboratory and classroom. *Consciousness and Cognition*, 37, 123-32. <https://doi.org/10.1016/j.concog.2015.09.001>

Blackwell, L. S., Trzesniewski, K. H., & Dweck, C. S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development*, 78(1), 246-63. <https://doi.org/10.1111/j.1467-8624.2007.00995.x>

Boliver, V., & Capsada-Munsech, Q. (2021). Does ability grouping affect UK primary school pupils' enjoyment of Maths and English? *Research in Social Stratification and Mobility*, 76(76), 100629. <https://doi.org/10.1016/j.rssm.2021.100629>

Chen, T. Y., & Chang, G. B. (2004). The relationship between foreign language anxiety and learning difficulties. *Foreign Language Annals*, 37(2), 279-89. <https://doi.org/10.1111/J.1944-9720.2004.TB02200.X>

Csikszentmihalyi, M., & Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. Harper & Row.

Cutrona, C. E., & Russell, D. W. (1990). Type of social support and specific stress: Toward a theory of optimal matching. In B. R. Sarason, I. G. Sarason, & G. R. Pierce (Eds.), *Social support: An interactional view* (pp. 319-366). John Wiley & Sons.

De Costam, P. I. (2015). Reenvisioning language anxiety in the globalized classroom through a social imaginary lens. *Language Learning*, 65(3), 504-32. <https://doi.org/10.1111/lang.12121>

Dewaele, J. M., Botes, E., & Meftah, R. (2023). A three-body problem: The effects of foreign language anxiety, enjoyment, and boredom on academic achievement. *Annual Review of Applied Linguistics*, 8, 1-6. <https://doi.org/10.1017/S0267190523000016>

Dewaele, J. M., & Dewaele, L. (2017). The dynamic interactions in foreign language classroom anxiety and foreign language enjoyment of pupils aged 12 to 18. A pseudo-longitudinal investigation. *Journal of the European Second Language Association*, 1(1), 12-22. <https://doi.org/10.22599/jesla.6>

Dewaele, J. M., & MacIntyre, P. D. (2014). The two faces of Janus? Anxiety and enjoyment in the foreign language classroom. *Studies in Second Language Learning and Teaching*, 4(2), 237-74. <https://files.eric.ed.gov/fulltext/EJ1134776.pdf>

Dewaele, J. M., & MacIntyre, P. D. (2016). Foreign language enjoyment and foreign language classroom anxiety: The right and left feet of the language learner. *Positive Psychology in SLA*, 215(236). <http://dx.doi.org/10.21832/9781783095360-010>

Dewaele, J. M., Witney, J., Saito, K., & Dewaele, L. (2018). Foreign language enjoyment and anxiety: The effect of teacher and learner variables. *Language Teaching Research*, 22(6), 676-97. <https://doi.org/10.1177/1362168817692161>

Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality, and development*. Psychology Press.

Dweck, C. S. (2006). *Mindset: The new psychology of success*. Random House.

Fang, F. & Tang, X. (2021). The relationship between Chinese English major students' learning anxiety and enjoyment in an English language classroom: A positive psychology perspective. *Frontiers in Psychology*, 12, 705244. <https://doi.org/10.3389/fpsyg.2021.705244>

Flick, U. (Ed.). (2013). *The SAGE handbook of qualitative data analysis*. Sage.

Frederickson, N., Simmonds, E., Evans, L., & Soulsby, C. (2007). Assessing the social and affective outcomes of inclusion. *British Journal of Special Education*, 34(2), 105-15. <https://doi.org/10.1111/j.1467-8578.2007.00463.x>

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56(3), 218. <https://doi.org/10.1037//0003-066x.56.3.218>

Gardner, R. C. (1985). *Social psychology and second language learning: The role of attitudes and motivation*. Edward Arnold.

Geranpayeh, A. (2003). A quick review of the English quick placement test. *UCLES Research Notes*, 12, 8-10.

Ghaith, G. M. (2002). The relationship between cooperative learning, perception of social support, and academic achievement. *System*, 30(3), 263-73. [https://doi.org/10.1016/S0346-251X\(02\)00014-3](https://doi.org/10.1016/S0346-251X(02)00014-3)

Goetz, T., Cronjaeger, H., Frenzel, A. C., Lüdtke, O., & Hall, N. C. (2010). Academic self-concept and emotion relations: Domain specificity and age effects. *Contemporary Educational Psychology*, 35(1), 44-58. <https://doi.org/10.1016/j.cedpsych.2009.10.001>

Goetz, T., Frenzel, A. C., Pekrun, R., & Hall, N. C. (2006). The domain specificity of academic emotional experiences. *The Journal of Experimental Education*, 75(1), 5-29. <http://dx.doi.org/10.3200/JEXE.75.1.5-29>

Hartmann, G. M. (2013). *The relationship between mindset and students with specific learning disabilities* (Doctoral dissertation, Humboldt State University). http://humboltdspace.calstate.edu/bitstream/handle/2148/1654/hartmann_gretchen_m_Fa2013.pdf;sequence=1

- Horwitz, E. (2001). Language anxiety and achievement. *Annual Review of Applied Linguistics*, 21, 112-26. <https://doi.org/10.1017/S0267190501000071>
- Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, 70(2), 125-32. <https://doi.org/10.2307/327317>
- Huang, Y. (2023). Examining the relationship between peer support and foreign language emotions in online learning: The mediating effect of self-efficacy. *Frontiers in Psychology*, 14, 1148472. <https://doi.org/10.3389/fpsyg.2023.1148472>
- Jin, Y., & Zhang, L. J. (2018). The dimensions of foreign language classroom enjoyment and their effect on foreign language achievement. *International Journal of Bilingual Education and Bilingualism*, 24(7), 948-962. <https://doi.org/10.1080/00224545.1983.9712012>
- Johnson, D. W., & Johnson, R. T. (1983). Social interdependence and perceived academic and personal support in the classroom. *The Journal of Social Psychology*, 120(1), 77-82. <https://doi.org/10.1080/00224545.1983.9712012>
- Khajavy, G. H., MacIntyre, P. D., & Barabadi, E. (2018). Role of the emotions and classroom environment in willingness to communicate: Applying doubly latent multilevel analysis in second language acquisition research. *Studies in Second Language Acquisition*, 40(3), 605-24. <https://doi.org/10.1017/S0272263117000304>
- Khan, A. B., Ramanair, J., & Rethinasamy, S. (2023). Perceptions of Pakistani undergraduates and teachers of collaborative learning approaches in learning English. *Journal of Applied Learning and Teaching*, 6(1), 180-197. <https://journals.sfu.ca/jalt/index.php/jalt/article/view/599>
- Kim, T. Y., Kim, Y., & Kim, J. Y. (2018). A qualitative inquiry on EFL learning demotivation and resilience: A study of primary and secondary EFL students in South Korea. *The Asia-Pacific Education Researcher*, 27, 55-64. <https://doi.org/10.1007/s40299-017-0365-y>
- Langford, C. P., Bowsher, J., Maloney, J. P., & Lillis, P. P. (1997). Social support: A conceptual analysis. *Journal of Advanced Nursing*, 25(1), 95-100. <https://doi.org/10.1046/j.1365-2648.1997.1997025095.x>
- Li, C., Huang, J., & Li, B. (2014). The predictive effects of classroom environment and trait emotional intelligence on foreign language enjoyment and anxiety. *System*, 96, 102393. <https://doi.org/10.1016/j.system.2020.102393>
- Liu, M., & Hong, M. (2021). English language classroom anxiety and enjoyment in Chinese young learners. *SAGE Open*, 11(4), 21-58. <https://doi.org/10.1177/21582440211047550>
- Lumby, J. (2011). Enjoyment and learning: Policy and secondary school learners' experience in England. *British Educational Research Journal*, 37(2), 247-64. <https://doi.org/10.1080/01411920903540680>
- MacIntyre, P. D., & Gardner, R. C. (1986). Anxiety and second-language learning: Toward a theoretical clarification. *Language Learning*, 39(2), 251-75. <https://doi.org/10.1111/j.1467-1770.1989.tb00423.x>
- MacIntyre, P., & Gregersen, T. (2012). Emotions that facilitate language learning: The positive-broadening power of the imagination. *Studies in Second Language Learning and Teaching*, 2(2), 193-213.
- Mackey, A. (2006). Feedback, noticing and instructed second language learning. *Applied Linguistics*, 27(3), 405-30. <https://doi.org/10.1093/applin/ami051>
- McCarthy, M., McCarten, J., & Sandiford, H. (2014). *Touchstone Level 4 student's book* (Vol. 4). Cambridge University Press.
- Motallebzadeh, K., Kondori, A., Kazemi, S. (2020). The effect of peer feedback on EFL learners' classroom anxiety. *Language Teaching Research Quarterly*, 18, 40-52. <https://doi.org/10.32038/ltrq.2020.18.03>
- Mueller, C. M., & Dweck, C. S. (1998). Praise for intelligence can undermine children's motivation and performance. *Journal of Personality and Social Psychology*, 75(1), 33-52. <https://psycnet.apa.org/doi/10.1037/0022-3514.75.1.33>
- Newton, F. B., & Ender, S. C. (2010). *Students helping students: A guide for peer educators on college campuses*. John Wiley & Sons.
- Pan, C., & Zhang, X. (2023). A longitudinal study of foreign language anxiety and enjoyment. *Language Teaching Research*, 27(6), 1552-75. <https://doi.org/10.1177/1362168821993341>
- Papi, M., & Khajavy, H. (2023). Second language anxiety: Construct, effects, and sources. *Annual Review of Applied Linguistics*, 43, 127-139. <https://doi.org/10.1017/S0267190523000028>
- Pavelescu, L. M., & Petrić, B. (2018). Love and enjoyment in context: Four case studies of adolescent EFL learners. *Studies in Second Language Learning and Teaching*, 8(1), 73-101. <https://files.eric.ed.gov/fulltext/EJ1175385.pdf>
- Pekrun, R. (2006). The control-value theory of achievement emotions: Assumptions, corollaries, and implications for educational research and practice. *Educational Psychology Review*, 18, 315-41. <https://doi.org/10.1007/s10648-006-9029-9>
- Plaks, J. E., & Stecher, K. (2007). Unexpected improvement, decline, and stasis: A prediction confidence perspective on achievement success and failure. *Journal of Personality and Social Psychology*, 93(4), 667-684. <https://psycnet.apa.org/doi/10.1037/0022-3514.93.4.667>
- Plumer, P. J., & Stoner, G. (2005). The relative effects of classwide peer tutoring and peer coaching on the positive social behaviors of children with ADHD. *Journal of Attention Disorders*, 9(1), 290-300. <https://doi.org/10.1177/1087054705280796>

- Rababah, L. (2023). Stepping into language mastery: Virtual reality simulations as catalysts for EFL pronunciation enhancement. *Journal of Applied Learning and Teaching*, 6(Sp Iss 1), 110-122. <https://journals.sfu.ca/jalt/index.php/jalt/article/view/851>
- Rammstedt, B., Grüning, D. J., & Lechner, C. M. (2024). Measuring growth mindset: Validation of a three-item and a single-item scale in adolescents and adults. *European Journal of Psychological Assessment*, 40(1), 84-95. <https://doi.org/10.1027/1015-5759/a000735>
- Rezai, A. (2023). Online peer-dynamic assessment as an approach for promoting listening comprehension and relieving learning anxiety: Evidence from Iranian EFL learners. *Computer-Assisted Language Learning Electronic Journal*, 24(2), 6-31.
- Rezai, A., Naserpour, A., & Rahimi, S. (2024). Online peer-dynamic assessment: An approach to boosting Iranian high school students' writing skills: A mixed-methods study. *Interactive Learning Environments*, 32(1), 306-324. <https://doi.org/10.1080/10494820.2022.2086575>
- Rezazadeh, M., & Tavakoli M. (2009). Investigating the relationship among test anxiety, gender, academic achievement and years of study: A case of Iranian EFL university students. *English Language Teaching*, 2(4), 68-74. <http://dx.doi.org/10.5539/elt.v2n4p68>
- Riazi, A. M. (2016). *The Routledge encyclopedia of research methods in applied linguistics*. Routledge.
- Sáenz, L. M., Fuchs, L. S., & Fuchs, D. (2005). Peer-assisted learning strategies for English language learners with learning disabilities. *Exceptional Children*, 71(3), 231-47. <https://doi.org/10.1177/001440290507100302>
- Saito, K., Dewaele, J. M., Abe, M., & In'nami, Y. (2018). Motivation, emotion, learning experience, and second language comprehensibility development in classroom settings: A cross-sectional and longitudinal study. *Language Learning*, 68(3), 709-43. <https://doi.org/10.1111/lang.12297>
- Saunders, S. A. (2013). *The impact of a growth mindset intervention on the reading achievement of at-risk adolescent students*. University of Virginia.
- Schleyer, G. K., Langdon, G. S., & James, S. (2005). Peer tutoring in conceptual design. *European Journal of Engineering Education*, 30(2), 245-54. <https://doi.org/10.1080/03043790500087084>
- Shao, K., Nicholson, L. J., & Kutuk, G. (2020). Emotions and instructed language learning: Proposing a second language emotions and positive psychology model. *Frontiers in Psychology*, 11, 559865. <https://doi.org/10.3389/fpsyg.2020.02142>
- Sherhoff, D. J., Csikszentmihalyi, M., Shneider, B., & Sherhoff, E. S. (2003). Student engagement in high school classrooms from the perspective of flow theory. *School Psychology Quarterly*, 18(2), 158-176. <https://psycnet.apa.org/doi/10.1521/scpq.18.2.158.21860>
- Solhi, M. (2024). Do L2 teacher support and peer support predict L2 speaking motivation in online classes?. *The Asia-Pacific Education Researcher*, 33(4), 829-842. <https://doi.org/10.1007/s40299-023-00767-5>
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2, 53-55. <https://doi.org/10.5116/2Fijme.4dfb.8dfd>
- Ten Cate, O., van de Vorst, I., & van den Broek, S. (2012). Academic achievement of students tutored by near-peers. *International Journal of Medical Education*, 1(3), 1-8. <https://doi.org/10.5116/ijme.4f0c.9ed2>
- Ulmanen, S., Soini, T., Pietarinen, J., & Pyhältö, K. (2022). Development of students' social support profiles and their association with students' study wellbeing. *Developmental Psychology*, 58(12), 23-36. <https://psycnet.apa.org/doi/10.1037/dev0001439>
- Von Wörde, R. A. (1998). *An investigation of students' perceptions of foreign language anxiety* (Doctoral dissertation, George Mason University, 1998).
- Vygotsky, L. S. (1978). *Mind in society: Development of higher psychological processes*. Harvard University Press.
- Walker, G., & Bryant, W. (2013). Peer support in adult mental health services: A metasynthesis of qualitative findings. *Psychiatric Rehabilitation Journal*, 36(1), 1-28. <https://doi.org/10.1037/h0094744>
- Wan, C. J., Cheung, K., Tsang, H., & Yip, T. L. (2024). Exploring the explanatory variables of peer support: Perspectives from direct-entry and transfer students. *Education and Information Technologies*, 29(9), 11445-11481. <https://doi.org/10.1007/s10639-023-12162-0>
- Wang, X. (2022). Enhancing Chinese EFL students' academic engagement: The impact of L2 enjoyment and academic motivation. *Frontiers in Psychology*, 13, 914682. <https://doi.org/10.3389/fpsyg.2022.914682>
- Wentzel, K. R., Battle, A., Russell, S. L., & Looney, L. B. (2010). Social supports from teachers and peers as predictors of academic and social motivation. *Contemporary Educational Psychology*, 35(3), 193-202. <https://doi.org/10.1016/j.cedpsych.2010.03.002>
- Wu, K. H. (2010). The relationship between language learners' anxiety and learning strategy in the CLT classrooms. *International Education Studies*, 3(1), 174-191.
- Xie, X., & Guo, J. (2023). Influence of teacher-and-peer support on positive academic emotions in EFL learning: The mediating role of mindfulness. *The Asia-Pacific Education Researcher*, 32(4), 439-47. <https://doi.org/10.1007/s40299-022-00665-2>
- Young, D. J. (1990). An investigation of students' perspectives on anxiety and speaking. *Foreign Language Annals*, 23(6),

539-53. <https://doi.org/10.1111/j.1944-9720.1990.tb00424.x>

Young, D. J. (1991). Creating a low-anxiety classroom environment: What does language anxiety research suggest?. *The Modern Language Journal*, 75(4), 426-39. <https://doi.org/10.2307/329492>

Zheng, Y., & Cheng, L. (2018). How does anxiety influence language performance? From the perspectives of foreign language classroom anxiety and cognitive test anxiety. *Language Testing in Asia*, 8(1), 1-19. <https://doi.org/10.1186/s40468-018-0065-4>

Zhou, S., Chiu, M. M., Dong, Z., & Zhou, W. (2023). Foreign language anxiety and foreign language self-efficacy: A meta-analysis. *Current Psychology*, 42(35), 31536-50. <https://doi.org/10.1007/s12144-022-04110-x>

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, 52(1), 30-41. https://doi.org/10.1207/s15327752jpa5201_2