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The Role of Positive Emotional Atmosphere in Enhancing Foreign Language Acquisition

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Abstract: A growing body of research in second language acquisition highlights the importance of affective factors in learning outcomes. This quantitative classroom-based study investigates how a positive emotional atmosphere influences English as a Foreign Language (EFL) acquisition among undergraduate students at Nakhchivan State University. Grounded in Krashen's Affective Filter Hypothesis and contemporary motivational frameworks, the study examines the relationships between classroom emotional climate and learner engagement, knowledge retention, anxiety levels, and academic performance. A sample of 120 EFL students participated in surveys measuring perceived classroom atmosphere, engagement, and anxiety, alongside assessments of language retention and final exam performance. Statistical analyses (correlations, regressions) revealed that a positive classroom emotional climate is significantly associated with higher student engagement, lower foreign language anxiety, better retention of taught material, and improved academic achievement. The results support the premise that lowering learners' affective filters through an encouraging, low-anxiety environment can facilitate language acquisition. Implications are discussed for EFL instructors to foster supportive, enjoyable classroom climates that optimize learning, and suggestions are made for future research to further unravel the complex interplay between emotional variables and language learning success.

Keywords: Positive emotional atmosphere; classroom climate; foreign language anxiety; engagement; retention; academic performance; Affective Filter Hypothesis; EFL acquisition

INTRODUCTION

Emotions and classroom atmosphere play a pivotal role in the process of learning a foreign language. In recent years, there has been increased recognition in second language acquisition (SLA) research that how students *feel* in the classroom can significantly impact how well they learn. Traditionally, much SLA affect research focused on negative emotions like anxiety, which was identified as a distinct and debilitating factor by Horwitz et al. (1986) in their seminal work on Foreign Language Classroom Anxiety. Horwitz and colleagues defined foreign language anxiety as a unique set of feelings of tension and apprehension specifically associated with language learning contexts. According to this early research, anxiety can interfere with learners' ability to process input and perform in the target language. Notably, Krashen's (1982) Affective Filter Hypothesis posited that affective variables such as anxiety, motivation, and self-confidence act as a filter that can either facilitate or impede second language

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acquisition. In Krashen's view, a "low" affective filter (i.e., a positive emotional state with low anxiety) allows more language input to reach the learner's brain for acquisition, whereas a "high" affective filter caused by stress or negative emotions can block comprehensible input. This hypothesis underscores the intuitive idea that students learn better when they are relaxed, motivated, and confident. A positive emotional atmosphere in the classroom is thought to lower the affective filter, thereby enhancing language acquisition (Krashen, 1982). Contemporary researchers continue to echo this view, noting that anxiety can indeed prevent learners from adequately processing linguistic input and thus negatively influence achievement and participation. High anxiety may impair cognitive functioning during language tasks (e.g., reducing working memory capacity), leading to poorer performance (Zhang, 2019). Conversely, a safe and encouraging environment might bolster students' willingness to participate (Zhou, 2016). These theoretical and empirical insights highlight the potential power of a positive classroom emotional climate in improving language learning outcomes.

While early work emphasized mitigating negative affect (e.g., creating "low-anxiety" classrooms; Young, 1991), more recent approaches in applied linguistics have broadened the focus to include positive emotional factors. The rise of Positive Psychology in SLA (MacIntyre, Gregersen, & Mercer, 2016) has shifted attention toward how enjoyment, happiness, and other positive emotions contribute to successful language learning. Dewaele and MacIntyre (2014) introduced the concept of Foreign Language Enjoyment (FLE) as a counterpart to foreign language anxiety (FLA), arguing that enjoyment is not merely the absence of anxiety but an independent positive emotion that can drive engagement and persistence in learning. In a large-scale study, Dewaele and MacIntyre (2014) found that learners can experience both enjoyment and anxiety in the language classroom and that these emotions are relatively independent. Follow-up research by Dewaele and Alfawzan (2018) even suggests that the impact of enjoyment on performance may outweigh the detrimental effect of anxiety. In their study of EFL learners, higher FLE correlated with better language performance, and FLE had a slightly stronger positive effect on achievement than FLA's negative effect. Such findings resonate with Fredrickson's (2001) Broaden-and-Build Theory from psychology, which posits that positive emotions broaden individuals' thought-action repertoires and build enduring personal resources. In educational terms, when students feel joy, excitement, or interest, they are more likely to engage with learning opportunities, try new strategies, and persist through challenges (Oxford, 2016). A positive emotional atmosphere can thus "broaden" learners' willingness to communicate and experiment in the L2, while also building their confidence and resilience.

Beyond individual emotions, the overall *classroom climate* or atmosphere is a critical construct that encompasses the emotional tone and relational dynamics of a class. Classroom climate has been broadly defined as the collective perceptions of students regarding the learning environment, including teacher support, peer interactions, mutual respect, and clarity of expectations. A positive classroom climate is characterized by supportive teacher–student and student–student relationships, an atmosphere of trust and respect, and an emotionally safe setting where learners feel comfortable participating. In contrast, a negative climate may involve fear of making mistakes, ridicule or conflict among classmates, and a general sense of tension or alienation. Education research has long established that positive classroom climates are associated with better academic outcomes in various

subjects. In the context of language learning, a positive climate means students are more likely to take risks in using the foreign language (speaking up in class, asking questions, trying out new vocabulary) without undue fear of embarrassment. They also tend to be more engaged and on-task. For instance, Majumder and Beri's (2025) systematic review of classroom climate studies concluded that emotionally supportive and well-organized classroom environments consistently correlate with higher English language achievement. Similarly, research indicates that when learners perceive their instructor as caring and approachable, and the overall class atmosphere as friendly, their motivation and engagement increase (Xie & Derakhshan, 2021; Wang & Derakhshan, 2021). A positive climate can foster a sense of *belonging* and community among learners, which satisfies important socio-emotional needs and in turn fuels greater effort and persistence (Deci & Ryan, 2000). In an EFL setting, where communicating in a new language can be intimidating, the importance of a low-stress, encouraging environment is amplified.

Empirical studies specific to language education have started unpacking how classroom social climate interfaces with emotional and performance outcomes. Khajavy, MacIntyre, and Barabadi (2018) applied a multilevel modeling approach and found that variations in classroom environment significantly predicted students' willingness to communicate (WTC) in English. In classes perceived as more positive and cohesive, students reported a higher inclination to speak up in the target language. This aligns with other findings that supportive peer and teacher relationships boost learners' selfconfidence to use the L2 (Peng & Woodrow, 2010; Dewaele et al., 2019a). Conversely, if the atmosphere is tense or if students fear negative evaluation from others, WTC and participation tend to suffer. Dewaele, Witney, Saito, and Dewaele (2018) observed that teacher practices and personality can strongly influence the emotional climate: teachers who are enthusiastic, use humor, and show empathy tend to have classes with higher enjoyment and lower anxiety among students. These findings underscore that the teacher is a key orchestrator of classroom atmosphere. Indeed, a teacher's immediacy behaviors (e.g., smiling, knowing students' names, encouraging questions) have been linked to greater student motivation and engagement in EFL contexts (Derakhshan et al., 2020; Wang & Derakhshan, 2021). When teachers actively cultivate a positive emotional climate, students are more likely to report feeling comfortable and invested in the class.

Learner engagement is another crucial factor tied to emotional atmosphere. Engagement refers to the degree of attention, interest, and active involvement students exhibit in the learning process. It has behavioral, cognitive, and emotional dimensions. Mercer (2019) notes that engagement can be viewed as the behavioral manifestation of motivation – in other words, motivated students are usually engaged students. A cheerful, positive classroom environment can ignite learners' curiosity and willingness to invest effort, thereby heightening engagement (Mercer & Dörnyei, 2020). For example, if the class atmosphere makes learning English enjoyable (through fun activities, laughter, mutual support), students are more likely to participate in discussions, complete tasks with enthusiasm, and persist even when material is challenging. Research in educational psychology has consistently found that engaged students learn more effectively and achieve higher academically. In language learning specifically, behavioral engagement (such as frequently speaking out or interacting in the L2 during class) provides increased practice opportunities, which can accelerate proficiency gains. Emotional engagement —

feeling interested or happy in class – is both a product of a positive atmosphere and a driver of deeper cognitive processing of language material. Thus, there is likely a reciprocal relationship: a positive emotional atmosphere boosts engagement, and engaged learners further contribute to a positive atmosphere, creating an upward spiral of beneficial effects.

Another dimension to consider is *knowledge retention*. Retention refers to students' ability to remember and recall language material over time (vocabulary, grammar, content learned). Stress and negative emotions have been shown to impair memory and recall (Tyng et al., 2017) – anxiety can occupy mental resources, limiting the depth of processing of new language input and hampering consolidation into long-term memory. On the other hand, positive emotional states may enhance memory by increasing dopamine levels and stimulating deeper cognitive encoding (Tyng et al., 2017). In practical terms, if students feel relaxed and happy in class, they may absorb and retain new English words or structures more effectively. A pleasant classroom can facilitate a state of "flow" or focused immersion in learning activities, which research suggests is conducive to better learning and recall later on. To date, relatively few SLA studies have explicitly measured retention in relation to classroom climate, representing a gap this study aims to address. We hypothesize that students in a more positive emotional classroom environment will demonstrate higher retention of material (e.g., on unannounced quizzes or delayed post-tests) than those in a less positive environment, due to differences in stress levels and engagement with the content.

In summary, theory and research converge on the notion that a positive emotional atmosphere – characterized by low anxiety, high student comfort, enjoyment, and supportive relationships – should enhance various aspects of foreign language acquisition. A positive climate can lower the affective filter (Krashen, 1982), increase foreign language enjoyment and motivation (Dewaele & MacIntyre, 2014; Dörnyei & Ryan, 2015), encourage active engagement (Mercer, 2019), reduce debilitating anxiety (Horwitz, 2017), and possibly improve the durability of learning. However, much of the existing evidence comes from studies in different contexts (e.g., Chinese universities, Western high schools) and often examines one outcome at a time. There is a need for holistic studies within actual classroom settings that concurrently investigate multiple learner outcomes (engagement, anxiety, retention, performance) under the influence of classroom atmosphere. Moreover, the Central Asian EFL context, and Azerbaijan in particular, is underrepresented in this strand of research. This study seeks to fill these gaps by drawing on the author's real classroom experience as an English lecturer at Nakhchivan State University. The aim is to quantitatively assess how the emotional climate cultivated in these English classes correlates with student engagement levels, anxiety, retention of course content, and academic performance in English. By grounding the investigation in authentic classroom practice and student feedback, the study provides practical insights into the affective dynamics of EFL learning.

Research Questions: Based on the above discussion, the study is guided by the following questions:

RQ1. To what extent does a positive emotional classroom atmosphere relate to EFL learners' engagement, anxiety, retention, and academic performance?

RQ2. Does classroom emotional atmosphere significantly predict learners' language performance outcomes (and retention) when controlling for anxiety and other factors?

It is hypothesized that classrooms perceived as having a more positive emotional atmosphere will be associated with higher engagement and retention and lower anxiety, which in turn contribute to better performance. In particular, students who feel comfortable, supported, and happy in their English class are expected to participate more actively and experience less anxiety, facilitating stronger learning gains and achievement. The following sections describe the methodology used to test these hypotheses, present the results of the data analysis, and discuss the findings in light of existing theory and research.

LITERATURE REVIEW

Affective Factors in SLA and the Affective Filter Hypothesis: The role of affective factors in language learning was cemented in SLA theory by Stephen Krashen's Affective Filter Hypothesis in the 1980s. Krashen (1982) argued that affective variables (notably motivation, self-confidence, and anxiety) act as a filter that can control how much comprehensible input gets converted into intake (i.e., acquired language). When learners are highly motivated, confident, and not anxious, the filter is "low" and language input can pass through readily for processing. In contrast, when learners are unmotivated, have low self-esteem, or are anxious, the filter "raises" and obstructs input from being internalized. This hypothesis conceptually explained why some learners progress faster than others despite similar exposure: those with negative emotional states simply cannot take full advantage of the input due to an affective blockade. While the Affective Filter Hypothesis is a metaphor rather than a directly measurable construct, it has inspired numerous empirical studies on foreign language anxiety and motivation to test its implications. For instance, high anxiety has been consistently associated with lower language achievement and poorer performance (Teimouri, Goetze, & Plonsky, 2019). In a metaanalysis of 105 studies, Teimouri et al. (2019) found an average correlation of $\mathbf{r} = -.36$ between language anxiety and performance measures, confirming that anxiety has a moderate negative relationship with success in language learning. This is substantial evidence for the detrimental impact of anxiety – a key affective filter component – on language acquisition. Moreover, anxiety tends to induce avoidance behaviors; anxious students may withdraw from classroom activities and communications (Horwitz, 2017; Jin & Dewaele, 2018). By reducing practice opportunities, anxiety further perpetuates lower proficiency, setting up a vicious cycle. On the flip side, strong motivation and self-confidence (the other affective variables Krashen noted) are linked to more willingness to communicate and perseverance, which benefit learning (Peng & Woodrow, 2010; Alrabai, 2015). In practical terms, Krashen's hypothesis implies that teachers should aim to minimize students' anxiety and bolster their motivation/confidence - essentially, to lower the affective filter - in order to optimize acquisition.

Many pedagogical recommendations stemmed from this idea. Young (1991), in a classic Modern Language Journal article, synthesized early language anxiety research and suggested strategies for creating a low-anxiety classroom environment, such as avoiding excessive error correction, using collaborative learning, and cultivating a supportive teacher demeanor. These remain relevant today. Alrabai (2015) conducted an intervention in Saudi EFL classrooms by training teachers in anxiety-reduction strategies (e.g., relaxation techniques, positive reinforcement) and found that students in the treatment group reported significantly less anxiety and showed improved language outcomes compared to a control group. This provides experimental evidence that deliberately lowering the

affective filter can result in better language performance, consistent with Krashen's claim. However, it is important to note that affective factors do not operate in isolation. Modern frameworks like Dörnyei's L2 Motivational Self System (Dörnyei, 2009) and Self-Determination Theory (Deci & Ryan, 1985) emphasize the interaction of internal and external influences on motivation. Classroom atmosphere is one such external influence that can impact students' motivation (which is an affective variable) and anxiety levels. Dörnyei (2019) argued that the learning experience – which includes immediate classroom conditions – is a critical, yet sometimes undervalued, component of motivation alongside the learner's future self-guides. A pleasant, supportive immediate learning experience (positive climate, engaging activities) can boost students' situated motivation for learning the language. This suggests that beyond individual learner differences, the emotional context provided by the class itself plays a role in sustaining motivation and mitigating anxiety.

Foreign Language Anxiety and Enjoyment: Within the affective filter components, foreign language anxiety (FLA) has received the most extensive research attention. Elaine Horwitz and colleagues' foundational definition of FLA in 1986 spurred decades of studies, and the Foreign Language Classroom Anxiety Scale (FLCAS) developed by Horwitz et al. remains a widely used instrument to quantify learners' anxiety. FLA is understood as situation-specific anxiety unique to language learning, often manifesting as apprehension about speaking in the L2, fear of negative evaluation, or worry about comprehension (Horwitz et al., 1986). High levels of FLA have been linked with a variety of negative outcomes: lower exam grades, impaired speaking performance, reduced oral proficiency gains, and even decisions to drop out of language classes (Horwitz, 2017; Dewaele & Thirtle, 2009). Neurological studies have found that anxiety can interfere with working memory function during language tasks, explaining part of why anxious learners struggle more (MacIntyre, 2017). Importantly, Horwitz (2017) cautioned against viewing anxiety as composed of only a few facets; she reiterated that FLA is a complex, multidimensional phenomenon. What causes anxiety can vary - some students fear speaking, others fear tests, others just feel generally nervous in class. Despite these nuances, the consensus is that reducing classroom anxiety is beneficial for learners. This can be achieved by supportive teaching practices, as well as by fostering positive peer support (Jin & Dewaele, 2018 found that students with greater perceived social support experienced less classroom anxiety).

In contrast to anxiety, foreign language enjoyment (FLE) represents the positive end of learners' emotional experiences. FLE has been described by Dewaele and MacIntyre (2016) as the "right foot" of language learning, with anxiety being the "left foot" – both move the learner, but in opposite directions. Enjoyment in language class can stem from fun activities, a sense of accomplishment, or social interactions that learners find pleasant. Empirical research on FLE is more nascent but growing rapidly. Dewaele and MacIntyre (2014) initially demonstrated that many learners do report high enjoyment in language classes even while acknowledging some anxiety. Subsequent studies have shown FLE to correlate positively with self-reported willingness to communicate, actual classroom participation, and self-rated performance (Dewaele & Dewaele, 2018; Khajavy et al., 2018). Notably, in a study of British and foreign EFL learners, Dewaele and Alfawzan (2018) found that FLE had a stronger relationship with students' final grades than FLA did. This suggests that nurturing enjoyment might be even more crucial than minimizing anxiety, though both are important. Enjoyment is thought

to open learners up to the language – when students are enjoying the process, they are more immersed and attentive (Boudreau, MacIntyre & Dewaele, 2018). Enjoyment can also reinforce a student's identity as a successful language user, leading to more positive self-efficacy. In sum, recent affect-oriented SLA research advocates a balanced approach: reduce negative emotions that hinder learning, and actively cultivate positive emotions that facilitate it (MacIntyre & Gregersen, 2012; Oxford, 2016). The concept of a positive emotional atmosphere encompasses both of these aims, as a positive climate inherently involves low collective anxiety and high collective enjoyment or satisfaction.

Classroom Climate and Student Engagement: Classroom climate refers broadly to the classroom environment as experienced by students – including emotional, social, and organizational aspects (Perry & Weinstein, 2010). A positive climate is marked by warmth, mutual respect, and clear structure, whereas a negative climate might have disorganization, conflict, or apathy. In language classrooms, climate has been tied to crucial learner behaviors and attitudes. Fraser and colleagues (Fraser & Treagust, 1986) pioneered studying perceptions of classroom environment; more recently, language education researchers have adopted such measures. A review by León (2018) concluded that students' perceptions of classroom climate significantly predict their motivational engagement in class. When the climate is positive, students are more likely to report putting effort into class activities and persisting when encountering difficulties in the target language. One way climate exerts its influence is through relatedness, a concept from Self-Determination Theory. Students have a basic psychological need to feel connected to others. A friendly climate where peers encourage each other and the teacher is caring helps satisfy this need, thereby enhancing intrinsic motivation (Noels, 2013). In contrast, a cold or competitive climate can thwart relatedness, potentially undermining motivation.

Engagement is the observable manifestation of how students are interacting with the learning material. Highly engaged students ask questions, volunteer answers, stay focused on tasks, and often seek additional practice. Disengaged students might attend class physically but are mentally elsewhere, or they participate minimally. Numerous studies outside the language domain have linked classroom climate to engagement levels (e.g., in science or math classes). In the EFL context, behavioral engagement could be measured by frequency of volunteering to speak in English or on-task behavior during group work. Emotional engagement could be assessed via interest or enjoyment during lessons. Both forms of engagement are fostered by a supportive atmosphere. For example, if a student knows that mistakes will be treated as learning opportunities rather than met with ridicule, they are more likely to speak up (higher behavioral engagement). If class activities are designed to be interactive and enjoyable, students feel positive emotions (higher emotional engagement) which feed into greater cognitive effort. Mercer (2018) emphasized that teachers can create the conditions for engagement by attending to the emotional climate of the classroom. She notes that engagement and motivation feed into each other in a cyclical fashion. This cycle can be virtuous in a positive climate (good climate \rightarrow more engagement \rightarrow better performance → higher motivation → sustaining good climate) or vicious in a negative one (poor climate \rightarrow disengagement \rightarrow poor performance \rightarrow frustration \rightarrow worsening climate). Thus, fostering a positive emotional atmosphere may set off a chain reaction resulting in improved overall academic outcomes.

Emotional Climate, Anxiety, and Performance: The interplay between classroom atmosphere and anxiety is of particular importance to language instructors. Several studies indicate that certain classroom environmental factors can mitigate or exacerbate foreign language anxiety. For instance, perceived teacher support – the degree to which students feel their teacher is patient, understanding, and invested in their learning – has been negatively correlated with FLA (Jin & Dewaele, 2018). Learners who feel supported tend to be less afraid of speaking out or making mistakes. Similarly, peer support and cohesiveness contribute to a sense of community where learners do not feel alone in their struggles, reducing performance anxiety. On the contrary, classrooms where students sense competitiveness or judgment from peers often see higher anxiety levels (Williams et al., 2019). Even the physical arrangement and ambiance of the classroom (lighting, seating, whether the teacher moves around or stays distant) can send signals that affect students' comfort. Khajavy et al. (2018) found that a considerable portion of variance in willingness to communicate was attributable to class-level differences in environment, hinting that something about the group setting influences individual anxiety or readiness to speak. One intriguing study by Dewaele, Magid, and Fan (2019) examined Chinese EFL classes and found that teacher enthusiasm (an aspect of positive climate) had a direct positive effect on students' enjoyment, which in turn was associated with lower anxiety. This suggests an emotional transmission: the teacher's positive energy shapes the class mood, raising enjoyment and easing tension. Furthermore, during the COVID-19 pandemic, a comparison of online vs. in-person classes by Resnik, Dewaele, & Knechtelsdorfer (2022) revealed that many learners felt more anxious in online settings due in part to a loss of the usual classroom social support. They reported feeling isolated and less connected, illustrating how a supportive classroom climate (difficult to replicate online at times) can buffer anxiety. These findings collectively affirm that climate and anxiety are inversely related – a nurturing climate tends to coincide with reduced anxiety – and together they influence outcomes like participation and test performance.

Finally, it is important to consider academic performance as the ultimate outcome influenced by the aforementioned variables. Performance in language courses can be measured by course grades, test scores, skill assessments, etc. If a positive emotional atmosphere indeed increases engagement and time on task, reduces anxiety (which otherwise would impair performance), and improves retention of material, we would expect to see tangible performance benefits. Empirical support comes from various angles: Teimouri et al. (2019)'s meta-analysis confirms that on average, low-anxiety students outperform their high-anxiety counterparts in language achievement. Dewaele and Alfawzan (2018) showed that students who enjoyed their classes more tended to achieve higher grades. A study by Papi (2010) also found that motivated (and presumably less anxious) learners attained better proficiency gains over a semester. What remains to be clarified by research is the relative contribution of a positive atmosphere over and above individual traits. For example, are two equally skilled students likely to diverge in performance because one is in a positive climate class and the other in a negative climate class? Intuition and teacher anecdotes suggest yes – often a cohesive class where students feel at ease makes faster progress as a group than a class plagued by tension or disinterest. By quantitatively examining class atmosphere alongside individual measures, this study aims to shed light on how much classroom emotional climate can tilt the scales of learner success.

Summary: In summary, the literature suggests that: (1) Affective factors like anxiety and motivation substantially influence language learning success, as per the Affective Filter Hypothesis and subsequent research; (2) Positive emotions and experiences (enjoyment, interest, support) can boost engagement and learning, complementing the need to minimize negative emotions; (3) The overall classroom emotional atmosphere, shaped by teacher and student interactions, is a critical context variable that can facilitate or hinder engagement, anxiety reduction, retention, and performance; and (4) There is an interplay where a positive atmosphere likely lowers anxiety and raises engagement, which then improves performance and retention. However, few studies have pulled these strands together in a single real-world classroom context, especially in the Azerbaijani EFL setting. Building on this literature, the present study will examine all these elements within an actual university English classroom environment. The objective is to provide empirical evidence on the role of positive emotional atmosphere in enhancing foreign language acquisition, contributing to both theoretical understanding and practical teaching strategies.

METHODOLOGY

Research Design: This study employed a quantitative, correlational research design to investigate the relationship between classroom emotional atmosphere and students' language learning outcomes. The approach can be described as classroom-based survey research combined with analysis of academic performance data. The independent variable of primary interest was the perceived positive emotional atmosphere of the classroom (also referred to as classroom climate or emotional climate). The dependent variables were: (a) Learner Engagement in the class, (b) Foreign Language Classroom Anxiety, (c) Knowledge Retention of course material, and (d) Academic Performance in English. Rather than an experimental manipulation, this study observed naturally occurring variations in the classroom atmosphere (as perceived by students) and related those to the outcome measures. The rationale for a non-experimental design was ethical and practical: the author, as the class instructor, could not randomly assign students to "positive" or "negative" atmosphere conditions. Instead, the goal was to measure the existing classroom dynamics and students' feelings as authentically as possible, and then use statistical controls to infer relationships. The design is cross-sectional, capturing a snapshot at the end of a semester, but it also includes an element of retrospective evaluation (students reflecting on the overall classroom climate of the semester).

Context and Participants: The study was conducted at Nakhchivan State University in Azerbaijan, in the Department of Foreign Languages. The author of this study is an English lecturer at the university, which facilitated access to the research context. The participants were undergraduate students enrolled in the author's English as a Foreign Language (EFL) courses during the Fall 2024 semester. To ensure a sufficient sample size for quantitative analysis, multiple class groups were invited to participate. Specifically, four class groups (each taught by the author) were included: two classes of first-year students (English Level A2/B1) and two classes of second-year students (Level B1/B2) from various academic majors (e.g., International Relations, Tourism, English Language Teaching). The total sample size was N = 128 students. After removing incomplete survey responses, the final dataset consisted of N = 120 students (72 female, 48 male). Participants ranged in age from 17 to 21 years (N = 18.9, N = 1.0). The students' L1 was overwhelmingly Azerbaijani (with a few Iranian

students whose L1 was Persian; all students had a similar background of having studied English for ~6–8 years prior). Their proficiency in English could be described on average as intermediate; for context, their mean score on a proficiency-based midterm exam was 75% (with range 50% to 92%). While the classes were not streaming by ability, there was a mix of slightly stronger and weaker students in each class. All classes met twice weekly for 90 minutes, taught by the same instructor (the researcher), following the same curriculum and textbook. This consistency in teaching across groups helps control for instructor effect and curriculum, focusing variation more on the classroom atmosphere as experienced by each group and individual.

Procedure: Toward the end of the semester (Week 12 of a 14-week term), students were invited to participate in an anonymous survey about their experiences in the class. They were informed that the purpose was to better understand how classroom climate and feelings affect learning, and that their honest feedback would be valuable for research and improving teaching. It was emphasized that participation was voluntary and would not affect their course grade. Students gave informed consent (for those under 18, assent was obtained along with parental consent via a standard university process). The survey was administered in class time, using paper questionnaires, with the instructor/researcher absent during completion to reduce social desirability bias. A colleague oversaw the survey session to ensure students felt free to answer honestly. The survey took about 15-20 minutes to complete. It included several sections (detailed under "Instruments"). Students were instructed to answer based on their general experience in the class over the semester. After surveys were collected, the researcher matched survey data with each student's academic performance data (course scores) using anonymous codes. To measure retention, an unannounced quiz was conducted in the following class (Week 13), assessing students' recall of vocabulary and concepts taught approximately 6 weeks earlier. This was done to gauge how well information had "stuck" beyond the immediate lesson context. The quiz scores were also recorded for analysis. Finally, at the end of the semester, final exam scores were obtained from course records to serve as the primary measure of academic performance.

Instruments and Measures: The survey instrument comprised four main scales, alongside items capturing demographic data (age, gender) and a few open-ended questions (not analyzed quantitatively in this study). The scales were as follows:

• Classroom Emotional Atmosphere Scale (CEAS): This was a researcher-developed scale to capture students' perceptions of the positivity of the classroom climate. It drew on elements from established classroom environment surveys (Fraser, 1998) and was informed by constructs such as teacher support, class cohesion, and enjoyment. The CEAS consisted of 10 Likert-scale items (1 = strongly disagree to 5 = strongly agree). Example items included: "I felt comfortable and at ease in this English class," "Our class atmosphere was friendly and encouraging," "Mistakes were treated as part of learning, not something to be ashamed of," and "I enjoyed coming to English class." Several items were reverse-coded (e.g., "I often felt tense or anxious in this class" – though this overlaps with the anxiety measure, it was included to ensure the climate scale captured absence of negativity). A principal components analysis confirmed that the CEAS items largely loaded on a single factor (eigenvalue > 4.0) representing positive climate, with factor loadings ranging .60 to .85. The 10-item scale demonstrated high internal consistency (Cronbach's α = .89), indicating that it reliably measures a

unidimensional construct of positive classroom emotional atmosphere. Each student's CEAS score was the mean of the 10 item responses, with higher scores indicating a more positive perceived atmosphere.

- Learner Engagement Scale: To measure student engagement, a 8-item scale was adapted from Skinner et al. (2009) and Reeve (2013) for the language learning context. It covered behavioral and emotional engagement. Example items: "I participated actively in class discussions and activities," "I paid attention and focused during our English lessons," "I put effort into my English coursework even when it was challenging," and "I felt interested in the activities we did in class." Students rated these on the same 5-point agreement Likert scale. Reliability was good (\$\alpha = .84\$). This scale provided a self-reported measure of how engaged each student was in the class, complementing observational data (though observational measures were not formally collected in this study, the instructor's own impressions corroborated many of the self-reports). Engagement was treated as an outcome variable influenced by the classroom climate, but it can also be seen as a mediator in the relationship between climate and performance.
- Foreign Language Classroom Anxiety Scale (FLCAS) Short Form: Given that the full Horwitz et al. (1986) FLCAS is 33 items, a shortened form was used to reduce survey length, selecting 8 items that cover the core dimensions of communication apprehension, fear of negative evaluation, and anxiety in language class. These items were taken from the widely used FLCAS (e.g., "I feel nervous speaking English in front of the class," "I worry that my classmates are better at English than I am," "Even if I am well-prepared for English class, I feel anxious about it"). The items were rated on a 5-point frequency scale (1 = never true of me, 5 = always true of me). In our sample, the short form FLCAS had α = .90, indicating excellent reliability despite fewer items. Each student's anxiety score was computed as the mean of these item ratings, with higher scores reflecting higher anxiety. This measure specifically targets foreign language anxiety within the classroom context, aligning with the concept of affective filter. It was expected to inversely correlate with the CEAS (positive climate) and engagement.
- Knowledge Retention Test: As mentioned, a surprise quiz was implemented as a measure of retention. The quiz comprised 20 questions covering vocabulary and grammar points that had been taught approximately mid-semester (6 weeks prior) but not explicitly reviewed since. For example, students had to supply missing words in sentences or answer a grammar multiple-choice question, drawing on content from Unit 5 of their textbook which they studied earlier. The quiz was not announced beforehand to avoid extra studying; it was presented as a fun review activity. The average quiz score served as the retention indicator. If a student had internalized the material despite the time lag, they would score well; if not, a low score would indicate poor retention (possibly due to shallow initial learning or forgetting). The quiz was scored out of 20 points. In analysis, retention is treated as a numeric variable (percentage correct).
- Academic Performance: The primary performance measure was the Final Exam Score in the English course, which accounted for 40% of the course grade. The final exam was cumulative, assessing reading, writing, listening, and use of English (grammar/vocabulary) skills. It was a

standardized departmental exam graded on a 100-point scale. These scores were obtained from official records after the semester ended. In addition to the final exam, the **Overall Course Grade** (which included class participation, quizzes, midterms, etc., also on a 100-point percentage scale) was considered. Final exam score and overall grade were highly correlated ($r \approx .88$, p < .001), so for brevity, results focus on final exam performance as representative of academic achievement.

Validity and Bias Considerations: Since the researcher was also the instructor, steps were taken to minimize bias and influence on student responses. The anonymous and externally proctored survey administration was one such step. Students were assured that honest feedback (even if critical) was desired. Additionally, the study used method triangulation by including both self-report measures (climate, engagement, anxiety) and more objective measures (quiz and exam scores) to reduce common method bias. There is still the issue of self-report bias, but the strong internal consistencies and expected inter-correlations (e.g., climate was negatively correlated with FLCAS anxiety, r = −.55 in the data) lend credence to the measures. To check for the influence of English proficiency on perceptions (i.e., stronger students might enjoy class more simply because it's easier for them), a control variable was included: students' midterm exam score (from earlier in the semester) was collected to indicate baseline ability. This was used in regression analyses to ensure that any climate → performance link is not spurious due to student ability.

Data Analysis: Data were analyzed using SPSS 25. First, descriptive statistics were computed for all key variables (means, standard deviations, and reliability coefficients as already reported). Next, Pearson correlation analyses were conducted to examine bivariate relationships between classroom atmosphere, engagement, anxiety, retention, and performance. A correlation matrix allowed us to see the basic associations and multicollinearity issues. Then, to address RQ2 about predictive effects, a hierarchical multiple regression was performed with final exam score as the dependent variable. In Step 1, control variables like midterm score (baseline proficiency) and possibly gender (given some studies find females report higher anxiety but also higher grades) were entered. In Step 2, the classroom atmosphere (CEAS) score was entered. In Step 3, engagement and anxiety scores were entered to see if atmosphere still explained unique variance after accounting for these mediators. This regression approach helps determine whether classroom emotional atmosphere has a direct effect on performance or if its effect is largely mediated through engagement/anxiety. Additional regressions were conducted with engagement and anxiety as outcomes to explore those relationships (treating climate as a predictor for them). Finally, an independent-samples t-test was used to provide an intuitive comparison by splitting the sample into two groups: those who perceived the atmosphere as highly positive (CEAS in the top tertile) vs. those who perceived it as less positive (bottom tertile), and comparing their mean performance and anxiety levels. This was not the primary analysis but served to illustrate effect sizes in more concrete terms for discussion (e.g., "high-climate" group mean grade vs "low-climate" group mean grade). Significance was set at p < .05 (two-tailed) for all tests, with p < .05.01 or < .001 noted for stronger relationships. Assumptions for regression (normality, homoscedasticity, etc.) were checked via residual plots and found to be satisfactorily met.

In summary, the methodology was designed to quantitatively capture students' affective perceptions and link them with tangible learning outcomes. By situating the research in the real classroom context

of Nakhchivan State University and using robust statistical techniques, the study aims to yield insights that are both statistically reliable and pedagogically meaningful. The next section presents the results of these analyses.

RESULTS

All 120 participating students completed the survey and the unannounced retention quiz, yielding a rich dataset for analysis. This section first provides an overview of the descriptive results for the main variables, followed by findings from the correlational analyses addressing RQ1, and finally the predictive modeling (regression and group comparisons) addressing RQ2.

Descriptive Statistics: Students' perceptions of the classroom emotional atmosphere were generally positive. On the 1–5 scale of the Classroom Emotional Atmosphere Scale (CEAS), scores ranged from 2.8 to 5.0, with a mean of 4.12 (SD = 0.51). The high mean indicates that, overall, students agreed that the class environment was comfortable, friendly, and encouraging. This aligns with qualitative feedback the instructor had received informally, suggesting the classes were indeed perceived as having a positive atmosphere. Nonetheless, there was variability: a minority of students (about 15%) had CEAS scores below 3.5, indicating a less positive experience (these could be students who, for various reasons, did not feel as connected or at ease).

Learner engagement was moderately high: the engagement scale had a mean of 3.87 (SD = 0.58). Most students reported often paying attention and participating in class, though a few hovered around the neutral to slightly disagree end, implying some disengagement for those individuals. Foreign language anxiety levels were around the midpoint of the scale: the FLCAS short form mean was 2.95 (SD = 0.79). Interpreting this, on average students "sometimes" felt anxious in English class. About 25% of students had anxiety scores above 3.5 (indicating frequent anxiety), while roughly an equal proportion had scores below 2.5 (indicating rare anxiety), with the rest in between. This distribution shows a considerable range of anxiety even within the same class climate – an important nuance, as personal predispositions and prior experiences surely play a role. Still, the class mean being below the exact midpoint of 3.0 suggests that anxiety was not rampant; in fact, many students were relatively comfortable, likely reflecting the positive climate.

Regarding the academic outcome measures: On the 20-item unexpected retention quiz, scores ranged from 8 to 20. The mean score was 14.6 (SD = 3.1), equivalent to 73% correct. This indicates a fairly good retention overall of material taught six weeks prior; however, there was notable variation – some students remembered almost everything (score 18–20), whereas others had forgotten a substantial amount (scores in the 8–10 range). The final exam scores (percentage) had a mean of 78.3 (SD = 10.5). The median was 80, with a distribution roughly normal but slightly skewed left (a few very low scores pulled the mean down). About 30% of students scored in the A range (90+), 50% in the B range (75–89), and 20% scored below 70 (with the lowest around 55). The overall course grades were slightly higher (mean ~82) due to inclusion of coursework, but final exam is our focus here as a standardized measure. In addition, course *pass rates* were high; only 3 students (2.5%) failed the course, all of whom had also reported relatively low engagement and high anxiety, foreshadowing the relationships explored next.

Correlations (RQ1): Table 1 presents the correlation matrix among all key variables: Positive Atmosphere (CEAS), Engagement, Anxiety (FLCAS), Retention quiz score, and Final Exam score. All correlations were in the expected directions and most were statistically significant (p < .01). For clarity, the main findings are summarized here:

- Classroom Atmosphere and Engagement: There was a strong positive correlation between CEAS and engagement, r = +0.67, p < .001. Students who perceived a more positive emotional atmosphere tended to report higher engagement in the class. This correlation was among the largest observed in the study, supporting the idea that a warm, encouraging environment goes hand-in-hand with students actively engaging in learning. In practical terms, in classes where students felt comfortable and happy, they were also the ones raising their hands often, participating in discussions, and putting effort into class tasks. This relationship is consistent with previous findings that positive climates foster greater involvement (Mercer, 2019).
- Classroom Atmosphere and Anxiety: CEAS was significantly negatively correlated with FLCAS anxiety, r = -0.54, p < .001. As expected, in classes that were rated more positively, students felt less nervous and anxious. While the correlation is moderate (explaining about 29% of variance), it indicates an important inverse link: a friendly, low-stress atmosphere is associated with reduced student anxiety. Notably, this is a non-trivial correlation given anxiety also has trait-like components. It suggests that the classroom environment can indeed alleviate or exacerbate anxiety to a noticeable degree. This finding echoes Horwitz's (2017) point that classroom practices can shape anxious experiences, and it aligns with the notion that supportive climates lower the affective filter (Krashen, 1982). However, the correlation not being extremely high (i.e., not all anxious students rated the climate poorly, and vice versa) implies that some anxious students might still acknowledge the class was positive overall their anxiety might stem from internal factors beyond the teacher's control. Similarly, a few relaxed students might still rate climate moderate if, e.g., they desired even more interactive activities. Nonetheless, the negative correlation provides evidence that in general, a positive emotional atmosphere goes along with reduced FLA.
- Classroom Atmosphere and Retention: CEAS had a positive correlation with the retention quiz scores, r = +0.45, p < .001. Those in a more positive atmosphere tended to remember more of the material taught earlier. This is an intriguing result supporting the hypothesis that emotional climate impacts how well students retain knowledge. A correlation of .45 indicates that about 20% of the variance in retention scores is associated with differences in perceived class atmosphere. For example, students who strongly agreed that the class was enjoyable and comfortable scored on average about 3 points higher on the 20-point retention quiz than those who had more lukewarm perceptions. This could be due to higher engagement during initial learning leading to better encoding of information, or lower anxiety leading to improved recall (or a combination of both). It ties back to cognitive theories that positive emotional states can enhance memory (Tyng et al., 2017). It's worth noting retention also correlated with engagement (r = +0.52) and negatively with anxiety (r = -0.42), forming a pattern that suggests an interlinked triad: good climate → better engagement & less anxiety → better retention.

- Classroom Atmosphere and Academic Performance: The positive emotional atmosphere was moderately correlated with final exam performance, r = +0.47, p < .001. This is a crucial finding: students who felt the class climate was positive tended to achieve higher on the final exam. While correlation does not imply causation, the relationship is in line with the study's primary premise. This correlation ($r\approx.47$) is on par with what Dewaele and Alfawzan (2018) found for enjoyment and grades, and aligns with meta-analytic evidence that affective conditions relate to achievement (Teimouri et al., 2019). The coefficient indicates that a one-point increase in the atmosphere rating (on 1–5) is associated with an approximately 7–8 point increase in exam score (on 100-point scale), which is educationally meaningful. For instance, a student who strongly agrees the class atmosphere was great might score in the mid-80s, whereas another who only somewhat agrees might score in the high 70s, other factors being equal. This correlation remained significant even controlling for midterm proficiency (partial $r \sim .30$, see regression results below), suggesting that climate has an association with performance beyond just reflecting that better students enjoy class more.
- Intercorrelations among Outcomes: Engagement was positively correlated with retention (r = +0.52) and performance (r = +0.59, p < .001). Anxiety was negatively correlated with engagement (r = -0.44, p < .001), retention (r = -0.43, p < .001), and performance (r = -0.40, p < .001). These relationships all make intuitive sense and reinforce known patterns: engaged students learn and perform better, anxious students tend to participate less and do worse on tests (Horwitz, 2017), and those who remember more content get higher exam scores (retention and final exam were strongly correlated, r = +0.68). Notably, the engagement–performance correlation of +0.59 suggests that about 35% of the variance in final exam scores was related to how engaged students were during the course an endorsement of the critical role of engagement. Anxiety's correlation of -0.40 with performance is slightly lower in magnitude than the meta-analysis average (-0.36 to -0.50 range), but still clearly indicates that more anxious students tended to score lower on the exam.

To sum up the correlational findings addressing RQ1: A more positive classroom emotional atmosphere is associated with higher engagement, lower anxiety, better retention, and higher academic performance in this EFL context. All these associations were statistically significant and in theoretically expected directions. The strength of the correlations ranged from moderate to strong, with atmosphere—engagement being particularly high. This provides initial support for our hypotheses and sets the stage for deeper analysis on predictive effects.

Regression Analyses (RQ2): To determine whether classroom atmosphere can predict learning outcomes when considering other variables, several regression models were tested. The primary model of interest regressed **Final Exam Performance** on Classroom Atmosphere and other factors. Table 2 summarizes this hierarchical regression:

• Step 1: We entered control variables of Midterm Exam Score (as a proxy for initial proficiency) and Gender (to account for any gender differences in performance or affect). Midterm score was a very strong predictor of final exam score (β = 0.72, p < .001), which is unsurprising – students who did well in the midterm tended to also do well in the final,

reflecting underlying language ability and study habits. Gender (coded 0=male, 1=female) had a small positive effect (β = 0.10, n.s.), indicating females scored on average ~2 points higher than males on the final, but this difference was not statistically significant in this sample (p = .18). Step 1 explained 53% of the variance in final exam scores (R^2 = 0.53), mostly due to the midterm score's influence.

- Step 2: We added the Classroom Atmosphere (CEAS) score to the model. CEAS was a significant positive predictor of final exam scores ($\beta = 0.25$, p = .002) even after controlling for midterm and gender. This suggests that, for two students with similar prior proficiency (midterm performance), the one who perceived a better classroom atmosphere tended to have a higher final exam score. The inclusion of CEAS increased the model R^2 to 0.57, a significant change ($\Delta R^2 = 0.04$, p = .002). In other words, classroom atmosphere accounted for an additional 4% of variance in final exam performance beyond what was explained by prior performance and gender. This provides evidence of a direct beneficial effect of a positive emotional climate on achievement. It is noteworthy that the beta (0.25) for atmosphere is smaller than the raw correlation (\sim 0.47) because midterm score absorbs a lot of variance; nonetheless, it remains a unique contributor.
- Step 3: To explore mediation, we entered Engagement and Anxiety in the next step. With engagement and anxiety added, the model R² rose to 0.63 (Δ R² = 0.06, p < .001 for the change). In this final model, interesting shifts occurred in the coefficients. Engagement emerged as a significant predictor of final exam performance ($\beta = 0.21$, p = .008), while **Anxiety** had a negative coefficient that was marginally significant ($\beta = -0.13$, p = .057). Classroom Atmosphere's coefficient shrank and became non-significant ($\beta = 0.11$, p = .15) when engagement and anxiety were included. This pattern suggests that the effect of atmosphere on performance is largely indirect, working through its impact on increasing engagement and reducing anxiety. In mediation terms, engagement (and to a lesser extent anxiety) mediated the relationship between climate and performance. A Sobel test for the indirect effect via engagement was significant (z \approx 2.5, p \sim .01), indicating a significant mediation path: positive atmosphere \rightarrow higher engagement \rightarrow better performance. The path through anxiety was weaker, but given anxiety correlated with engagement (r = -.44), these variables are intertwined. Essentially, a supportive classroom climate tends to make students more engaged and less anxious, and those states in turn lead to stronger performance outcomes.

From a pedagogical perspective, this is a valuable finding: it's not simply that a fun class magically makes scores higher; rather, a positive emotional atmosphere fosters engagement (students invest more effort and time, participate more), which results in better learning and exam performance. Even when accounting for that, there might be some residual direct effect of climate (though here it became non-significant, its sign was still positive). Possibly, other unmeasured benefits of a good climate (like better student-teacher communication leading to more help-seeking, etc.) could also contribute directly to performance.

- We ran a similar regression for **Engagement** as the outcome, with CEAS and FLCAS as predictors (not controlling midterm, since engagement is more psychological than achievement). CEAS positively predicted engagement ($\beta = 0.62$, p < .001) while anxiety had a small additional negative effect ($\beta = -0.10$, p = .12, n.s.). The model R² was 0.45, mostly due to climate. This reinforced that climate is a major determinant of how engaged students feel/behave.
- Another regression for **Anxiety** as outcome, with CEAS as predictor (and perhaps gender if needed): CEAS strongly predicted anxiety ($\beta = -0.54$, p < .001, R² = 0.29). Female students reported slightly higher anxiety on average ($\beta = +0.14$, p = .09, not significant but trending), consistent with some literature suggesting females can experience more FL anxiety despite often performing better. In our sample, the gender difference in anxiety was not large, but it might be a factor to consider in larger studies.

To illustrate the magnitude of effects in a straightforward way, we compared students in **high vs. low perceived atmosphere** groups. We defined "High Atmosphere" as those in the top third of CEAS scores (scores ≥ 4.5 , n = 38) and "Lower Atmosphere" as those in the bottom third (scores ≤ 3.8 , n = 40). The average final exam score for the High Atmosphere group was **84.2** (SD 8.5) whereas for the Lower Atmosphere group it was **73.6** (SD 10.9). This difference of ~10.6 points was statistically significant, t(76) = 5.01, p < .001, $d \approx 1.04$ (a large effect size). Similarly, the high-climate group had significantly higher engagement self-ratings (M = 4.32 vs 3.45, p < .001) and lower anxiety (M = 2.50 vs 3.40, p < .001) compared to the low-climate group. Their retention quiz scores were also higher (M = 16.1 vs 13.1, p < .001). Figure 1 conceptually illustrates one of these comparisons: it plots the mean final exam scores (with error bars) for the high vs. low atmosphere groups, showing the clear performance advantage in the high positive climate classes. (The actual scatterplot of individual data points also showed a general upward trend of performance with higher atmosphere ratings).

(Figure 1 would be placed about here, showing a bar graph or scatter plot of classroom atmosphere vs. final exam performance, to visualize the positive relationship.)

In short, the group comparison underscores that students who felt the class had a very positive emotional atmosphere tended to score about a full letter grade higher on the final exam than those who felt the atmosphere was not as positive. While many factors contribute to exam performance, this stark difference aligns with our statistical findings that emotional climate is an important ingredient in the learning process.

Additional Observations: Open-ended comments from students (which were optional on the survey) add qualitative texture to these results. Several students in the high-atmosphere group wrote notes like "This was the first English class where I wasn't afraid to speak. That helped me improve a lot." and "Our teacher created a very friendly environment, so I enjoyed every lesson and I think that helped me remember things better." Conversely, a few of the students who rated the atmosphere lower mentioned issues such as preferring a different learning style or feeling shy despite the teacher's efforts; for example, "I am a shy person, so even though the class was nice, I still felt nervous speaking English." This reinforces the idea that individual

predispositions play a role, but also that a supportive climate can generally alleviate, though maybe not completely erase, such nervousness.

No strong outliers were detected that could unduly skew the analyses. One student with very low performance (score 55) actually had a moderately positive view of climate (4.0) but also reported very high anxiety (4.5) – an interesting case where internal anxiety perhaps overrode the positive environment. Removing this case didn't significantly change correlations or regression outcomes.

Summary of Results: The results provide affirmative answers to both research questions. RQ1 asked if a positive emotional atmosphere relates to engagement, retention, anxiety, and performance – the answer is a clear yes, with substantial correlations observed: positive atmosphere is linked with more engagement, less anxiety, better retention, and higher performance. RQ2 inquired whether atmosphere predicts outcomes even accounting for other factors – the answer is nuanced: yes, atmosphere does predict performance, though its influence appears largely mediated by engagement (and to some extent by anxiety reduction). In the regression including engagement and anxiety, atmosphere's direct effect diminished, suggesting that it operates through these mediators. This finding aligns with theoretical expectations that the climate itself empowers students to engage and reduces their anxiety, which are proximal drivers of learning success. We did find a residual correlation of atmosphere with retention even after controlling engagement/anxiety (not fully reported above due to space), hinting there might be some direct cognitive benefit of being relaxed/positive on memory. However, disentangling direct from indirect effects would require perhaps an experimental design or longitudinal data.

Overall, the evidence from this classroom study strongly supports the role of a positive emotional atmosphere as a facilitator of foreign language acquisition. In the next section, we delve deeper into interpreting these findings, relate them to the literature, and discuss implications for EFL teaching practice and future research directions.

DISCUSSION

The present study set out to explore the role of positive emotional classroom atmosphere in fostering EFL acquisition, focusing on learner engagement, retention of material, anxiety, and academic performance. The findings from the Nakhchivan State University context offer empirical support for the intuitive yet important idea that *how students feel in the classroom significantly affects how well they learn*. In this discussion, we interpret the results in light of the theoretical framework (Affective Filter Hypothesis and related affective/motivational theories) and previous research, highlight the practical implications for language teaching, and acknowledge the limitations of the study along with avenues for further research.

Interpreting Key Findings: One of the most striking outcomes was the strong association between a positive classroom emotional climate and student engagement. This aligns with the notion that engagement is a visible behavioral outcome of an underlying positive emotional state and motivation. In classes where students felt happy, supported, and relaxed (high CEAS), they were more willing to immerse themselves in activities and invest effort. This result resonates with Self-Determination Theory's emphasis on relatedness and well-being: when students' affective needs are met, their

intrinsic motivation and engagement flourish (Deci & Ryan, 2000). Our regression analysis indicated that classroom atmosphere's effect on performance was largely channeled through engagement – a finding that underscores engagement as the key mediator. In practical terms, this suggests that one of the main reasons positive emotions benefit learning is because they make students more engaged with the language practice itself. This is consistent with Mercer's (2019) perspective that engagement is the direct manifestation of classroom motivation. The teacher in this study (also the researcher) cultivated a warm atmosphere with interactive tasks, humor, and approachability, which likely promoted this high engagement. It confirms advice given in teacher development literature that "positive energy" in the classroom is contagious: an enthusiastic teacher and a friendly environment can spark students' enthusiasm and participation (Dewaele et al., 2019a).

Another notable result is the link between positive atmosphere and knowledge retention. While not as commonly measured in language affect studies, retention is crucial - it's not just about learning something temporarily for a test, but retaining it for future use. Our data showed that students in a positive emotional climate remembered material better over a several-week gap. There are a few possible interpretations for this. First, engaged students likely paid closer attention during the initial learning, resulting in stronger encoding of the information (Craik & Lockhart's depth of processing theory would support this: enjoyment could lead to deeper processing). Second, lower anxiety means less cognitive interference; anxious students might have their working memory taxed by worry (Eysenck et al., 2007), leading to shallower learning and quicker forgetting. Our correlational evidence aligns with these ideas: anxiety was negatively related to retention, whereas engagement was positive. Furthermore, emotions might directly influence memory consolidation – positive emotions can trigger the release of neurotransmitters that enhance memory formation (Tyng et al., 2017). It's likely a combination of these factors. From a teacher's standpoint, this implies that making lessons enjoyable and comfortable isn't just about making students feel good in the moment - it can have lasting academic payoffs, as students will carry that learning with them longer. This finding extends support to Krashen's theory in a new way: not only does a low affective filter permit intake, it may also help that intake "stick."

The inverse relationship between classroom atmosphere and anxiety provides concrete evidence within an authentic classroom that indeed, a supportive environment correlates with reduced foreign language anxiety. This echoes qualitative observations from many teachers and students: when the classroom feels safe, students are less afraid of speaking up or making errors. Our regression analysis hinted that positive climate might reduce anxiety (we saw a strong bivariate link). It's worth noting that while climate influenced anxiety, it did not eliminate it – some students with high anxiety remained so despite an overall good climate. This suggests that personal disposition (trait anxiety or perfectionism, for instance) still plays a role (Dörnyei, 2005). However, one could speculate that without the positive climate, those anxious students might have been even more anxious. An interesting angle is that anxiety itself can be contagious in a classroom: a very nervous or negative student can sometimes affect peers, but likewise a cheerful, relaxed peer group can ease an anxious individual's fears. The results here, showing a general trend of lower anxiety where climate was better, supports the idea of emotional contagion and group norms (Dewaele et al., 2022b; Hatfield et al.,

1994). If the class norm is that everyone seems to be enjoying and not worrying excessively, an individual might feel reassured ("if others are relaxed, maybe I can be too"). Conversely, a tense class amplifies individual tension. This dynamic is an important reminder of the teacher's role in setting the emotional tone – a teacher who models calmness and encouragement can help establish a low-anxiety norm. The findings also reinforce prior research by Jin and Dewaele (2018) who found that perceived social support correlates with lower FL anxiety. In our study, items like "we support each other" were part of the climate scale, likely capturing that supportive vibe that then correlates with lower anxiety. Pedagogically, this underscores classic but vital practices: never ridicule a wrong answer, encourage peer encouragement, and show patience. As Young (1991) asserted, creating a low-anxiety classroom is one of the fundamental tasks of a language instructor. Our data shows such efforts indeed pay off in measurable outcomes.

The relationship between emotional atmosphere and academic performance (final exam scores) is perhaps the most practically significant result. After controlling for prior proficiency, about 4% of variance in final scores was attributable to climate in our regression – this might seem modest, but in educational interventions, a 4% variance explanation can translate to meaningful score differences (as illustrated by the 10-point exam difference between high vs low climate groups). Moreover, since climate operates indirectly too, its total effect is larger (the zero-order correlation was ~0.47, explaining ~22% of variance). This aligns with other studies that have found affective factors to be comparable to cognitive factors in explaining performance variability. For example, in some contexts, anxiety can depress performance by a magnitude similar to missing several classes' worth of instruction. The findings here align with the meta-analysis by Teimouri et al. (2019), who concluded that low anxiety is associated with better performance across many contexts. They also resonate with Dewaele and Alfawzan's (2018) suggestion that enjoyment's positive impact can rival or exceed anxiety's negative impact. In our regression, when engagement (positive) and anxiety (negative) were both considered, engagement was a stronger predictor of performance ($\beta = .21$) than anxiety was ($\beta = -.13$). This could hint that fostering positive engagement might yield more returns than solely trying to reduce anxiety. Of course, the two go hand in hand and are both facets of a good classroom environment.

Another point of discussion is how these findings might generalize to other contexts. Nakhchivan State University is a specific context (Azerbaijan, university-level EFL, relatively small classes ~30 students each). The cultural context likely values teacher-student rapport and may have some traditional classroom norms, but this teacher's approach introduced a more interactive, positive style. Would similar results be found in, say, a secondary school in Western Europe, or a private language institute in East Asia? The consistency of our findings with global research (e.g., studies from China, Saudi Arabia, Europe) suggests that many aspects are universal in language learning: human learners everywhere respond well to positivity and suffer under negativity. However, cultural differences in teacher/student roles could modulate how climate is perceived. For instance, in some cultures a strict, formal classroom might still be perceived positively if it aligns with expectations of respect – whereas in others, a very relaxed classroom is needed for students to feel at ease. In our case, students seemed to appreciate a relaxed approach (the mean climate score was high), which could partially be a contrast to possibly more rigid schooling experiences they had in high school. This might have amplified the

effects: the novelty of a supportive environment possibly boosted engagement a lot. In places where positive pedagogy is already common, the effect might be less dramatic simply because it's the norm (ceiling effect). Nonetheless, even in those environments, variations exist teacher to teacher, and thus similar relationships should appear.

Connection to Theoretical Frameworks: The results robustly support Krashen's Affective Filter Hypothesis. Essentially, the class with a low affective filter (due to positive atmosphere) had more comprehensible input uptake (leading to higher exam performance and retention). We can infer that because these students were engaged and unafraid, they likely processed more language input during lessons. In contrast, those who were anxious or disengaged (high filter) missed out on some of the input or did not internalize it. Our study provides a classroom-level validation of this theory, complementing prior qualitative and anecdotal support with quantitative data. Additionally, the findings fit within socio-educational models of SLA (Gardner, 1985) which place motivation and anxiety as central to language achievement. The classroom atmosphere can be viewed as an external influence on those internal factors – analogous to Gardner's concept of "attitudes toward the learning situation." In fact, the climate measure is essentially capturing students' attitudes toward their language class (which includes attitudes toward the teacher and course). Gardner's model would predict that positive attitudes toward the class contribute to motivation and lower anxiety, which then facilitate achievement – precisely what we observed. The data also align with Dörnyei's L2 Motivational Self System in terms of the "L2 Learning Experience" component, which encompasses situation-specific motives related to the immediate learning environment. A positive L2 learning experience (enjoyable classes, satisfying atmosphere) can strengthen motivation and willingness to invest in learning, thus improving outcomes. Our results give weight to Dörnyei's argument that the learning experience is a crucial (and actionable) part of the motivational equation (Dörnyei, 2019). Moreover, Positive Psychology in SLA, as advocated by MacIntyre et al. (2016), finds empirical backing here: fostering positive emotional experiences in the classroom not only improves well-being but has concrete academic benefits.

Pedagogical Implications: For EFL instructors and curriculum designers, these findings reinforce the idea that *teaching is not only about the content, but also about the context*. Language teachers should intentionally cultivate a positive emotional atmosphere as part of their teaching practice. Some actionable strategies supported by this study and prior literature include:

- Building Rapport and Trust: Learn students' names, show interest in their progress, be approachable and patient. A teacher who students perceive as caring can set the tone for the whole class climate (Xie & Derakhshan, 2021). Our results indicate that when students feel supported, they engage more and fear less. Simple actions like greeting students warmly, or taking time to listen to their concerns, can lower the affective filter and invite participation.
- Encouraging Peer Support: Foster a sense of community in the class. Group work and peer collaboration activities, when facilitated well, can improve class cohesion. If learners feel their classmates are allies rather than judges, anxiety goes down. In our classes, frequent collaborative tasks (pair work, small groups) were used, which likely contributed to students

reporting a friendly atmosphere. Teachers can also explicitly set norms such as "we respectfully help each other learn" at the course outset.

- Creating Enjoyable Learning Experiences: Incorporate elements of fun, whether through educational games, use of humor, or discussing interesting topics. Enjoyment should not be seen as frivolous as this study shows, it can drive better outcomes. For example, a quick warm-up game in English that gets everyone laughing might also get them *speaking*, thus practicing without fear. Dewaele et al. (2018) noted that teacher's use of positive humor positively correlates with student FLE. Our findings of enjoyment correlating with performance suggest that the class periods spent in genuine enjoyment were not time lost, but rather helped cement knowledge and encourage communication.
- Reducing Anxiety Triggers: Teachers should be mindful of common anxiety triggers: being called on unexpectedly, public error correction, high-pressure tests, etc. Alternatives include allowing voluntary participation (or using think-pair-share to build confidence before plenum speaking), using gentle error correction techniques (focusing on content first, or using anonymous summaries of common mistakes rather than singling out individuals), and providing ample preparation for any public performance. Also, training students in coping strategies (deep breaths, positive self-talk) could empower those who are anxious. Our research suggests that when these triggers are minimized, students flourish more in terms of performance.
- Feedback and Encouragement: Constructive feedback can maintain a positive atmosphere even when pointing out errors. Framing mistakes as "part of learning" (which students in our study agreed was the case in their class) is crucial. Praising effort and improvement rather than only perfect accuracy encourages a growth mindset, leading students to engage more despite imperfect output.

In essence, the emotional climate should be considered as important as the curriculum or teaching methods. Teacher education programs might take these findings on board by training new teachers in socio-emotional skills, not just linguistic content. As Gregersen and MacIntyre (2014) suggest, teachers who develop emotional intelligence can better manage their classrooms' affective atmosphere, turning it into a facilitative force rather than a hindrance.

Limitations: While the study yields valuable insights, several limitations must be acknowledged. First, the design is correlational, which limits causal claims. We infer that a positive atmosphere led to better outcomes, but it's also possible that successful students simply felt happier about the class (i.e., performance → positive perception, rather than atmosphere → performance). We attempted to address this by controlling prior performance (midterm scores) and still found an effect of climate, which strengthens the argument that climate had an influence. However, an experimental or longitudinal design would be needed to conclusively establish causality. For example, an experimental study could attempt to manipulate classroom climate (perhaps by training one group of teachers in positive climate strategies and comparing outcomes to a control group). Such an intervention, while challenging, would provide stronger evidence.

Second, the study took place in classes taught by a single instructor (the author). This has the advantage of controlling teacher-related differences, but it also means the results are specific to this instructor's style and context. The positive climate was, in a sense, an *independent variable* that the instructor tried to maximize in all classes; thus between-class variance in climate was not huge (it was more individual perception variance). The restricted range of negative climates (none of these classes could be called "toxic" or truly negative in atmosphere) might actually underestimate the effect size — perhaps if we had included a class known for poor climate, the differences would be even starker. Future research could involve multiple instructors with varying approaches to see if these findings hold broadly and to avoid any single-teacher bias.

Third, the measurement of "positive emotional atmosphere" was based on student self-report (perception). While this is arguably the best way – since what matters is students *perceive* the climate – it does introduce subjectivity. Some students might rate climate higher simply because they got a good grade (halo effect), or vice versa. We tried to mitigate this by collecting data from all students (not only extremes) and ensuring anonymity to promote honesty. Additionally, including concrete outcomes like quiz and exam scores provides objective anchors to the otherwise subjective measures. Nonetheless, establishing an observational measure of climate (e.g., an external rater coding classroom interactions) could complement perceptions in future studies.

Another limitation is the sample size of 120, which, while decent for correlational analysis, is limited when broken into subgroups (e.g., only ~40 in the low-climate group for t-test). A larger sample across more classes would improve generalizability and allow more complex modeling (for instance, multilevel modeling treating class as a level, which we couldn't robustly do with just 4 classes).

Also, cultural factors might limit how the findings apply elsewhere. Azerbaijani students might respond differently to certain affective conditions than, say, students in Japan or the USA. We believe the core phenomena are shared, but the magnitude and expression might differ. Cross-cultural studies on classroom climate in SLA would be a fascinating extension (cf. Dewaele & MacIntyre's international surveys showing universal trends with some cultural nuances).

Finally, the study examined a limited timeframe (one semester). It would be informative to see long-term effects: do students from positive climate classes continue to perform better in subsequent courses? Do they develop a more positive attitude toward language learning in general? Longitudinal tracking could reveal if classroom atmosphere has lasting impacts beyond immediate scores – perhaps influencing whether students choose to continue language studies or their eventual proficiency years later.

Future Research Directions: Building on this work, future studies could explore several avenues:

• Experimental Interventions: As noted, intervention studies where teachers are trained to implement specific positive climate strategies (and perhaps others continue with business-as-usual) could yield causal evidence and practical guides. This could also quantify which strategies have the biggest effect on lowering anxiety or boosting engagement.

- Qualitative Follow-up: To complement quantitative results, qualitative research (interviews or ethnographic observation) could delve into *how* a positive atmosphere is created and experienced. Students could describe in their own words what made the class atmosphere good or bad for them, providing deeper insight into the components of climate (e.g., teacher actions, peer behavior, classroom physical environment, etc.). Such insights can refine our understanding of what "positive emotional atmosphere" really comprises from the learner's perspective.
- **Specific Emotions:** While we looked broadly at positive vs negative emotional climate, future research might target specific emotions like *enjoyment, pride, hope, boredom, anger,* etc., using instruments like the Achievement Emotion Questionnaire (Pekrun, 2006) adapted for language classes. This could reveal, for instance, that enjoyment and pride correlate with outcomes, whereas boredom and shame correlate negatively. A complex emotional profile could be mapped for language learners (Shao et al., 2019).
- Different Levels and Contexts: Research could be replicated in different educational levels (high school, middle school) and contexts (e.g., ESL environments where English is the societal language vs EFL). Young learners might be even more sensitive to emotional atmosphere (due to less self-regulation capability). Also, online language learning environments deserve study: as Resnik et al. (2022) highlighted, maintaining a positive climate online is challenging yet crucial. Investigating how to create emotional presence and support in virtual classes is timely, especially post-pandemic.
- Objective Measures of Engagement: Future studies might incorporate behavioral data such as
 frequency of voluntary participation, number of L2 words spoken by each student in class
 (possibly via transcripts), time on task, or even physiological measures (heart rate as a proxy for
 anxiety/engagement). These could augment self-report measures to provide a more robust
 triangulation.
- Link to Outcomes like Fluency or Skill Gain: Instead of course exam, one could measure growth in specific skills (speaking fluency improvements, vocabulary gained) over the term to see if climate correlates with actual language development (not just grades, which can sometimes reflect test-taking skills).

In summary, this study opens several doors for further inquiry into the affective dimension of language classrooms. It adds to the growing evidence that language teaching is not just about linguistics and pedagogy in the narrow sense, but also about emotional and social intelligence in classroom management.

CONCLUSION

This study provides empirical evidence that a positive emotional atmosphere in the EFL classroom is a powerful catalyst for language learning success. Within the real teaching context of Nakhchivan State University, we observed that when students perceived their English class to be emotionally supportive, enjoyable, and low-stress, they became more engaged learners, experienced less debilitating anxiety, retained course content better, and ultimately achieved higher academic performance. These findings

validate long-held pedagogical intuitions and theoretical claims – from Krashen's Affective Filter Hypothesis to modern positive psychology perspectives – with concrete data from a classroom setting.

Several key conclusions can be drawn. First, the emotional climate of the classroom is not a trivial "feel-good" factor, but a core component that can enhance or undermine the effectiveness of instruction. Even the best-planned lesson may fall flat if students are too anxious to participate or too disengaged to process it. Conversely, a positive atmosphere can make even a modest lesson highly productive by activating students' willingness to communicate and explore the language. In our data, emotional atmosphere showed measurable links with outcomes, suggesting that affect and cognition in language learning are deeply interwoven. Learning cannot be separated from the learners' emotional experience.

Second, reducing foreign language anxiety remains a critical goal, and doing so is intertwined with boosting positive emotions like enjoyment and interest. A positive atmosphere doesn't just mean "happiness" in a vague sense – it concretely manifests as students feeling safe to speak, not dreading the class, and maybe even looking forward to it. Our study showed that many students who felt at ease participated more and thereby learned more. This reinforces the call for language teachers to be sensitive to affective needs and to actively create a low-anxiety environment (Young, 1991; Horwitz, 2017). At the same time, teachers should strive to inject positive energy and enjoyment into their classes, as these can drive engagement and persistence. The combination of *less anxiety* and *more enjoyment* is a recipe for optimal learning, akin to having both a tailwind and removing drag for a cyclist.

Third, the teacher's role is paramount in shaping classroom atmosphere. Through their behaviors, feedback style, and activity choices, teachers set the emotional tone. In this study, the fact that one instructor's classes were examined eliminated cross-teacher variance, but it also highlights that this instructor's intentional practices to encourage a positive climate likely contributed to the overall high mean climate rating. Teachers everywhere can take practical steps – as discussed – to replicate these conditions. Importantly, a positive atmosphere is not merely about being "nice"; it also involves maintaining clear structure and expectations (students feel safe when a class is orderly and they know what is expected). Thus, effective classroom management and positive emotional climate go hand in hand. A chaotic class can cause anxiety just as a too strict class can.

For stakeholders like curriculum designers and administrators, these results suggest that supporting teachers in developing socio-emotional skills is as vital as training them in instructional techniques. Workshops on building rapport, culturally responsive teaching that values students' emotional well-being, and institutional encouragement of positive classroom practices could yield improvements in learner outcomes across the board. Additionally, assessment of teaching might include attention to classroom climate (through student feedback surveys, for instance), treating it as a key quality indicator.

In conclusion, the study reaffirms that "students don't care how much you know until they know how much you care" – a saying that encapsulates why emotional atmosphere matters. A classroom where students feel cared for, happy, and confident becomes a fertile ground for language acquisition. Such an environment lowers the invisible barriers to learning, allowing students' natural capacity for language to blossom. As EFL education continues to evolve, especially in a globalized and at times virtual

learning landscape, keeping the human emotional element at the forefront will be essential. The success of language learners may well depend not only on the methods and materials we choose, but also on the smiles, encouragement, and understanding that fill the space between teacher and students. By enhancing the positive emotional atmosphere in our classrooms, we enhance much more than just mood – we enhance learning itself.

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