

THE PREDICTIVE ROLE OF POSITIVE AND NEGATIVE EMOTIONS IN UNIVERSITY STUDENTS' ATTITUDES TOWARD LEARNING ENGLISH: A PLS-SEM APPROACH

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ABSTRACT

This quantitative study used PLS-SEM to analyze how positive and negative emotions predict students' attitudes toward learning English across three public-sector universities in Karachi, Pakistan. A cross-sectional sample of 120 undergraduate students was used, and students' emotional responses were measured using the Modified Differential Emotions Scale (mDES). Students' attitudes toward learning English (ATLE) were assessed using five adapted items from the LLMQ (Ryan, 2008). Data were analyzed using both structural and measurement model assessments in SmartPLS 4. The findings indicated that positive emotions significantly predicted students' attitudes toward English learning ($\beta = 0.258$, $p < .001$). Contrary to the established hypothesis, negative emotions (NE) positively and significantly predicted students' attitudes toward learning English (ATLE) ($\beta = 0.136$, $p = .001$). These research findings suggest that positive emotions (PE) improve students' attitudes toward learning English (ATLE), while some negative emotions (NE) may also motivate learning in challenging ESL contexts. Finally, this study contributes to emotion research in SLA by demonstrating the context-dependent role of both positive and negative emotions in Pakistani higher education.

Keywords: Positive emotions (PE); Negative emotions (NE); English learning attitudes; Second language acquisition (SLA); Attitudes toward Learning English (ATLE); PLS-SEM; Pakistan.

1. Introduction

English plays an essential role in international communication, students' professional development, and higher education. In Pakistan, English proficiency is closely associated with students' academic success and career development (Mansoor, 2005; Rahman, 2009). For that reason, understanding the factors that explain students' motivation and attitudes toward learning English is an important area for research. Even though second language acquisition (SLA)

literature has conventionally highlighted several factors, i.e., learning styles, linguistic and other cognitive factors, contemporary research revealed emotions as one of the important determinants of students' L2 learning motivation (MacIntyre & Gregersen, 2012; Dewaele, 2022).

The role of emotions in SLA suffer from lack of intense research and acknowledgement, as Scovel (2001) stated that "affective domain is the least research area by language researchers; in addition to this, as Swain (2013) stated that "emotions are

the elephants in the room, poorly studied, poorly understood, seen as inferior to rational thought”, whereas Dornyei (2009) suggested that “everybody knows that classrooms are actual places for a great deal of emotional chaos”, but least research consideration has been given to it. Emotion is the primary human drive, and the human mind is emotional” (Johnson, 2014). “It functions like an electronic device, amplifying and providing the power, firmness, and dynamism needed to drive one's performance” (MacIntyre, 2002). Students' emotions strongly influence their persistence towards L2 learning, willingness to communicate, and other dimensions of L2 learning motivation. The relationship between emotions and learning outcomes, encompassing both positive and negative academic emotions, is a core focus in current educational psychology (Miele et al., 2024; Simić et al., 2024).

Emotions critically influence memory in foreign language acquisition, with positive feelings promoting retention and negative ones hindering it (Al-Jarrah, 2024; Barton et al., 2020). They are essentially psychological phenomena, and they deliver a life full of feelings, i.e., sorrow, happiness, amusement, love, and joy, and in this respect, emotions are central to what it means to be a true human being. It occupies a unique place in the realm of applied psychology and is undeniably a notable area of research (Gross, 2015). According to Hogan (2014), our lives are full of emotions. When we succeed in exams, we feel glad, and when something bad happens with our friends or family members, we feel very sorry, sad, and depressed; we feel embarrassed when we make mistakes, and angry when someone does something wrong to us. In general, emotions are responses of individuals to various life events and circumstances, involving various psychological and developmental activities (Keltner & Ekman, 2000).

Positive emotions, such as interest and joy, are closely related to students' maximum learning outcomes. (Dewaele & MacIntyre, 2014). These positive emotions, such as love, awe, inspiration, amusement, pride, hope, interest, serenity, gratitude, and joy, increase learners' awareness and social bonds (Fredrickson, 2001, 2009). They

improve social connections and students' engagement (Fredrickson & Joiner, 2002). Moreover, Fredrickson's (2001) Broaden-and-Build Theory suggests that students' positive emotions support adaptive learning behaviors. However, negative emotions are often called “firefighting emotions” (Seligman, 2011), and they are characterized by negative feelings that expand awareness of harmful aspects in the environment (Fredrickson, 2009).

However, negative emotions include anger, fear, sadness, and disgust, and they lead to specific thought-action tendencies, like anger causing distraction and problems (Fredrickson, 2009). Mostly, foreign language anxiety is generally considered a barrier that impedes second language learning (Horwitz et al., 1986). However, Pekrun's (2006) Control-Value Theory suggests that negative emotions may have context-dependent significances and may encourage effort when learners value academic outcomes. Rather than being inherently harmful, these emotions act as adaptive signals, drawing attention to perceived threats and injustices (Kashdan & Biswas-Diener, 2014). For instance, anger may motivate one's limitations, while fear enhances vigilance and self-protection. Emotions like anxiety and frustration, though uncomfortable, can promote growth by motivating individuals to overcome obstacles and seek change (Ford & Gross, 2019).

Motivation and attitude are very closely related but conceptually different constructs in SLA. Motivation is the objectives and processes that sustain and initiate learning (Gardner, 1985; Masgoret & Gardner, 2003), whereas attitude refers to students' feelings their evaluative beliefs, and directions toward the learning experience and the language. This dissimilarity is very important in the present study because the focus is on learners' attitudes toward learning English rather than their overall L2 learning motivation to learn English. Additionally, attitudes may be unfavorable and favorable and can be formed by students' emotional experiences. According to research, positive emotions such as interest and enjoyment might foster a favorable learning attitude and support students' engagement; however, negative emotions such as frustration,

anxiety, and boredom may be associated with unfavorable attitudes toward students' language learning experience (MacIntyre & Gregersen, 2012). Therefore, investigating the predictive role of positive and negative emotions in students' attitudes toward learning English provides useful research-based information on how students' emotional experiences are related to their attitudes toward English language learning.

Even though emotions in second language acquisition (SLA) have gained substantial attention, earlier research has mainly focused on either positive emotions, i.e. Foreign language enjoyment (e.g., Dewaele & MacIntyre, 2014; Dewaele & Li, 2020; Li et al., 2018), and negative emotions, specially foreign language classroom anxiety (e.g., Horwitz et al., 1986; MacIntyre & Gardner, 1994; Horwitz, 2001). These research studies have generally analyzed L2 learning outcomes, i.e., willingness to communicate (WTC), L2 learning experience, and ideal L2 self, with relatively limited focus on learners' attitudes to learning English. Moreover, most of the evidence originates outside Pakistan, and the PLS-SEM approach to study the simultaneous predictive influence of positive and negative emotions remains limited. For that reason, the present research addresses these gaps by investigating the predictive role of positive and negative emotions in shaping Pakistani university students' attitudes to learning English through PLS-SEM, and as directed by Pekrun's (2006) Control-Value Theory and Fredrickson's (2001) Broaden-and-Build Theory, the study proposes

H1: Positive emotions positively and significantly predict attitudes toward learning English.

H2: Negative emotions negatively and significantly predict attitudes toward learning English.

2. Literature Review

2.1 Emotions in Second Language Acquisition

Emotions are essential for social interaction, communication, and adapting to the environment (Scherer, 2005). It acts as a "loudspeaker, given that the power, firmness, and dynamism to drive our performance" in anything we do (MacIntyre, 2002). Each emotion has a purpose; it is an essential part of human presence which plays a

significant role in second language learning. They are frequently recognized as important factors in second language acquisition (SLA) that shape students' willingness to communicate, classroom involvement, and motivation to learn a second language (MacIntyre & Gregersen, 2012; Dewaele, 2022). Modern SLA research also explains emotions as a dynamic process influenced by socialization and learners' cognition. According to Dornyei (2009), "everybody knows that classrooms are actual places for a great deal of emotional chaos", but little research consideration has been given to it. For that reason, investigating the relationship between positive and negative emotions and attitudes to learning English provides a compact emotional profile of learners' emotions in the realm of SLA.

2.2 Plutchik's Psycho-Evolutionary Theory of Emotion

According to Plutchik (1980, 2003), the Psycho-Evolutionary Theory of Emotion (PET) suggests that emotions are biological and psychological reactions that change to promote adaptive responses to the environment. This theory categorizes eight main emotions, i.e., trust, joy, fear, sadness, surprise, anger, disgust, and anticipation, which serve as the basis for all other emotional involvements, and more complex and secondary emotions are formed through variations in intensity and the combination of these primary emotions. According to Plutchik, emotions are categorized along three essential dimensions: intensity, polarity, and similarity. Each emotion exists at diverse levels of intensity (e.g., annoyance-anger-rage); emotions placed next to one another are more closely related than distant emotions; and emotions placed opposite each other signify bipolar opposites (e.g., trust-disgust and joy-sadness). These close associations are explained and demonstrated through Plutchik's three-dimensional cone model and the generally renowned Wheel of Emotions, where emotional intensity surges toward the center, opposite emotions represent contrasting affective states, and adjacent emotions indicate greater similarity. Moreover, in other words, the wheel determines how blending primary emotions increases more

complex emotional states, providing an organized framework for understanding the variety of

human emotional experiences (Plutchik, 2001, 2003) (see Figure 2.2).

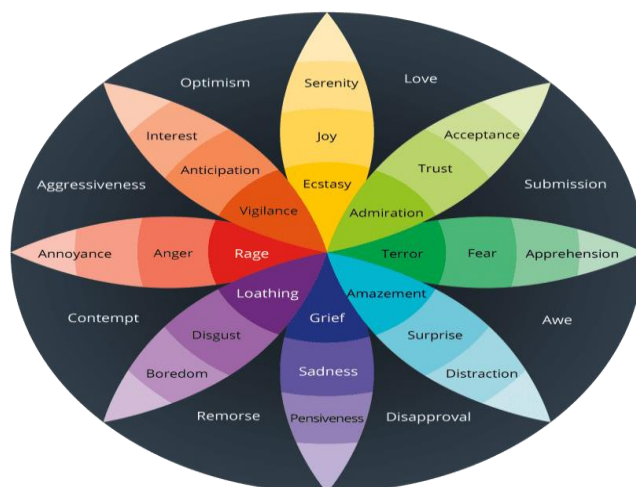


Figure 2.2: Plutchik's (2001) emotions' wheel

Vision One. (2022). *How Robert Plutchik's Wheel of Emotions can boost your brand and advertising.*

2.2 Positive Emotions

Positive emotions are short-lived, multisystem responses to some adjustment in the way people infer or value their existing living conditions. These emotions include love, awe, inspiration, amusement, pride, hope, interest, serenity, gratitude, and joy, etc., which broaden awareness and strengthen social bonds (Fredrickson, 2001, 2009). They enhance social connections and engagement (Fredrickson & Joiner, 2002). These emotions significantly contribute to students' involvement, cognitive development, and second language learning motivation. Moreover, Fredrickson's (2001) suggests that emotions such as interest, enjoyment, and hope improve students' behavior and intellectual abilities, thus promoting flexible learning and resilience behavior. These emotions provide active strength to all human performance, including first and second language learning

2.3 Positive Emotions and Attitude toward Learning English

Research indicates that positive emotions such as joy, love, interest, and inspiration encourage broader visual search strategies, promote innovative and original thoughts and actions, and support more flexible goals and attitudes. They

also help counteract the effects of negative emotions (Tugade & Fredrickson, 2004). Since Seligman introduced the concept of positive psychology, researchers have concentrated on the positive impact of emotions on human performance. "Positive emotions are well-defined as the learning of the circumstances and developments of individuals, groups, and organizations" (Gable & Haidt, 2005). "The role of positive emotions in SLA has not been given much research consideration" (MacIntyre & Gregersen, 2012; Dewaele & MacIntyre, 2014). Though, there has been debate about the negative and positive emotions within broader views of student factors, especially in motivation frameworks by Dornyei (2005), Clément (1980, 1986), and Gardner (1985, 2010). Previous SLA research reveals that positive emotions, mainly enjoyment, are strongly related to L2 learning motivation and students' maximum learning outcomes (Dewaele & MacIntyre, 2014). Therefore, H1: Positive emotions positively and significantly predict attitudes toward learning English, is tested in this study.

2.4 Negative Emotions

Negative emotions are "firefighting emotions" (Seligman, 2011, p.66). They tighten once answers

and responses to persistence performance (Fredrickson, 2004). In other investigators' narratives of second language acquisition, numerous emotions were found, and at the very most, negative emotions were frequently observed and were totally in line with Fredrickson's theory. "Negative emotions notify us of unambiguous danger; when someone feels fear, it is mostly headed by an idea of jeopardy", such as sadness being headed by an idea or reflection of loss (Seligman, 2011). In opposition to other emotions, "negative emotions caution us about a precise risk; when we sense fear, it is almost continuously headed by a thought of jeopardy" Seligman (2011), such as sadness being headed by a thought of loss, and anger being led by a thought of intrusion. Our negative emotional responses are frequently disproportional to the actuality of the danger. In Pavlenko's (2006) analysis, a blend of negative emotions, such as anxiety, sadness, confusion, insecurity, worries, and guilt, was frequently observed in the writing of a few writers who acquired English as a second language, with only two positive emotions, i.e., Anticipation and enthusiasm (Van Deurzen, 2012).

2.5 Negative Emotions and Attitude toward Learning English

Negative emotions inform us about ambiguous risks; for example, when someone feels fear, it is often driven by thoughts of danger, sadness, loss, anger, trespass, and so on. Negative emotions are described as "firefighting emotions" (Seligman, 2011). "It squeezes the individual's responses and options to persistence performances" (Fredrickson, 2004). For instance, anxiety triggers the fight-or-flight response. In previous research on second language learning and acquisition, multiple emotions were identified, most of which were negative and likely to cause "narrowing" according to Fredrickson's theory.

Negative emotions, often called "firefighting emotions" (Seligman, 2011), are considered negative feelings that recognize harmful aspects in the environment (Fredrickson, 2009). These emotions include anger, fear, sadness, and disgust, and they lead to specific thought-action tendencies, such as anger mostly causing

distraction and problems (Fredrickson, 2009). Negative emotions like fear, anger, and envy can harm well-being. They lower self-esteem, increase stress, and damage relationships (Kashdan & Biswas-Diener, 2014). These emotions often come from negative thinking patterns such as blaming others, making excuses, or constant self-criticism (Ford & Gross, 2019). To feel better, people need to understand what causes their negative emotions. This helps them manage emotions in healthy ways and build inner strength.

However, in the context of SLA, these emotions give us important information about our learning needs and environment. They are not always harmful and can help us grow. Languages are hard to learn, and the learning process can arouse powerful sentiments. Most of the teachers ask their students to "stop and think" when emotions run high, but have they ever asked their students to "stop and feel something"? It also provides teachable strategies for handling sentiments and emotions (Seligman, 2011), and studies on language learning approaches. Moreover, negative emotions, particularly foreign language anxiety, have conventionally been associated with reduced students' willingness to communicate and their self-confidence (Horwitz et al., 1986). However, Pekrun's (2006) control-value theory advocates that negative emotions might have diverse repercussions depending on students' academic and control values. When students have extreme academic success pressure, language anxiety and fear of failure usually encourage them to make greater effort and maintain persistence. Therefore, H2: Negative emotions significantly and negatively predict attitudes toward learning English is tested in this study.

2.6 Attitude to Learning English within L2 Motivation

According to Masgoret & Gardner (2003) and Noels (2003), "language learning motivation is a broadly studied research area within SLA," and it remains a "multifaceted concept" (Dörnyei, 2000). One influential framework of L2 learning motivation is the L2 Motivational Self System (L2MMS), which includes the students' Ideal L2 Self "what he/she wants to achieve" and the

Ought-to L2 Self “what others expect from them”. The real gap between these two impacts how strongly students are motivated and their L2 learning experience (Dörnyei, 2006, 2009).

Modern research also explains that motivation is a dynamic process and is influenced by students’ learning and personal experiences (Mercer, 2017; Lamb, 2017). It is widely acknowledged as an important factor in SLA, as it is related to students’ persistence, struggles, and language learning activities (Gardner, 2001; Dörnyei, 2000). Moreover, L2 learning motivation is a multidimensional concept shaped by students’ learning objectives, self-perceptions, learning experiences and contexts, and attitudes to learning English, etc.

Attitude usually refers to students’ negative or positive orientation toward an experience or object. In language learning, it is reflected in students’ enjoyment, interest, and positive assessment of the learning experience. Although motivation and attitude are closely linked, they are not synonymous; rather, attitude is considered an important part of students’ overall motivational orientations. Moreover, attitude to learning English has been investigated within L2 motivation research, including Ryan’s (2008) research on “Japanese learners of English”. Ryan examined attitudes toward learning English alongside other L2 learning motivational constructs, including intended learning effort, ideal L2 self, instrumentality, etc.

In the present study, attitude to learning English (ATLE) is adopted from Ryan’s (2008) L2 motivation questionnaire (LLMQ), and it is adapted as a five-item measurement scale. These adapted items capture learners’ general interest, feelings, enjoyment, and their positive attitude toward learning English. Theoretically, this emphasis on students’ feelings toward language learning and their immediate learning experience is closely linked to the L2 learning experience of the L2MSS, which earnestly concerns students’ language learning experience, their environment, and process. Therefore, in this study, attitude to

learning English (ALTE) is considered as one of the L2 motivational constructs which reflect university learners’ orientation toward learning English.

2.7 Theoretical Framework

This study incorporated Fredrickson’s (2001) broaden-and-build theory and Pekrun’s (2006) control-value theory to describe how students’ positive and negative emotional responses predicted their attitudes toward learning English. The theoretical framework proposes that positive emotions motivate students to acquire the language and accomplish success (Dörnyei, 2010); however, negative emotions might have context-dependent properties. In addition, students’ attitudes to learning English (ATLE) refer to students’ positive or negative feelings, evaluations, and perceptions related to the English language learning process. Secondly, ATLE is not exclusively part of the actual dimensions of Dörnyei’s (2009) L2 Motivational Self System (L2MSS). It has been generally analyzed as a key L2 motivation construct in SLA research. Contemporary and previous research studies based on the L2MSS have integrated ATLE as an important measure related to students’ second language learning experiences and L2 learning motivation dimensions (Ryan, 2008; Kormos & Csizér, 2008)

2.8 Conceptual Framework

In this research study, the conceptual framework identifies positive and negative emotions as predictors of students’ attitudes to learning English. Positive emotions such as amusement, hope, inspiration, interest, joy, love, pride, serenity, awe, and gratefulness are expected to support a positive attitude towards learning English. Moreover, negative emotions such as hate, sadness, scarred, stressed, anger, ashamed, contemptuous, embarrassed, and guilt are hypothesized to weaken students’ attitudes toward learning English (ATLE).

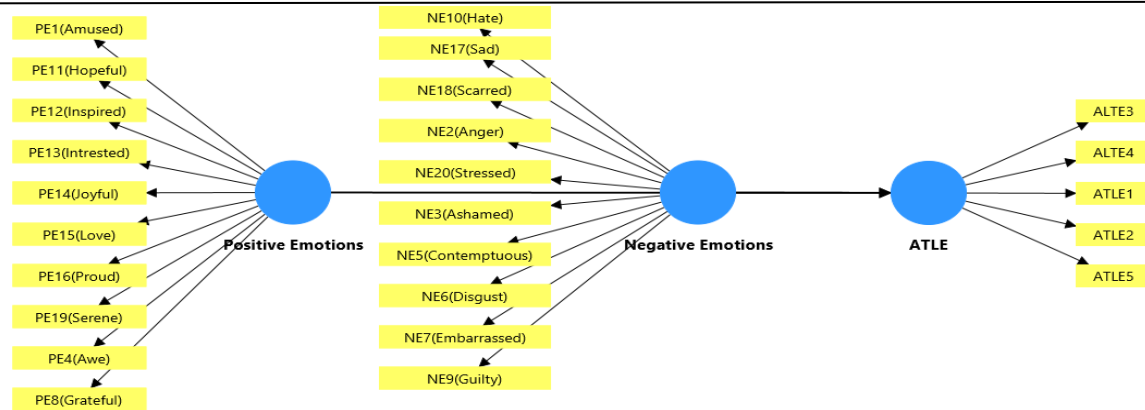


Figure 2.6 illustrates the reflective model. In this model, positive emotions (PE) with 10 items and negative emotions (NE) with 10 items are higher-order constructs, whereas attitude towards learning English (ATLE) represents a dimension of L2 learning motivation with only 4 items.

2.9 Research Hypotheses

The following research hypotheses are tested in this study.

H1: Positive emotions (PE) significantly and positively predict attitudes toward learning English (ATLE).

H2: Negative emotions (NE) significantly and negatively predict attitudes toward learning English (ATLE).

3. Methodology

3.1 Research Design

A quantitative cross-sectional research design was used to analyze how positive and negative emotions influence students' attitudes toward learning English (ATLE). The data were collected through survey questionnaires and analyzed using PLS-SEM in SmartPLS 4 after evaluating the structural and measurement models (Hair et al., 2022).

3.2 Data Collection

The data were collected from undergraduate management science students at three private-sector universities in Karachi, Pakistan. The research participants had already been provided with information about the study's objectives and instructions for completing the questionnaire. The survey was managed in an organized manner, and research participants were motivated to provide honest responses based on their perceptions and personal experiences. Respondents' participation was voluntary. To

maintain confidentiality, all their responses were collected anonymously. Finally, the completed questionnaires were organized and prepared for statistical analysis, and the final data of 120 valid research participant responses were examined using SmartPLS 4.

3.3 Instruments

In this study, two established statistically valid and reliable questionnaires measured three constructs: positive emotions and negative emotions, which were used to analyze students' emotional responses, and attitudes toward learning English (ATLE) as one of the important dimensions of L2 learning motivation. Moreover, positive and negative emotions were assessed using the Modified Differential Emotions Scale (mDES) without any adaptation in the questionnaire, and students' attitudes toward learning English (ATLE) were measured using the five items adapted from Ryan's (2008) LLMQ. In both the scales used in this research, all items (10 for positive emotions and 10 for negative emotions, and 4 for ATLE adapted from Ryan's 2008 LLMQ) were rated on a five-point Likert scale, for example (1 = strongly disagree to 5 = strongly agree).

3.4 Participants Characteristics and Sampling

The study investigated 120 undergraduate management science students enrolled in English courses at three private-sector universities in Karachi, Pakistan, namely the Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology

(SZABIST), Karachi School of Business and Leadership (KSBL), and Iqra University (IU), with an equal number of participants selected (N=40, 33.33%) from each university. Moreover, the research study sample included 50% males (N=60) and 50% females (N=60). Regarding age, participants aged 23–25 years constituted the largest age group, accounting for 50% of the total

sample (N = 60). These research participants were selected through convenience sampling. Additionally, in accordance with the sample-size considerations recommended by Hair et al. (2022), the present study sample size of 120 was considered adequate for the proposed PLS-SEM model because of the relatively limited number of structural paths.

Table 3.4: Demographic Characteristics of Participants (N = 120)

Variable	Category	Frequency	Percentage %
Gender	Male / Female	60 / 60	50.0 / 50.0
University	SZABIST- KSBL-IU	40 / 40 / 40	33.3 / 33.3 / 33.3
Age	20–22 years	40	33.3
	23–25 years	60	50
	Above 25 years	20	16.7

3.5 Data Analysis

PLS-SEM was used to estimate and calculate the measurement model criteria, which included reliability analysis, discriminant validity (HTMT), convergent validity, AVE, and multicollinearity (VIF), through the PLS algorithm, and the structural model estimations, which included (path coefficients, t-values, p-values, R²) through bootstrapping.

3.6 Ethical Considerations

This quantitative research followed proper ethical standards. Research participants' consent was obtained with the consideration of confidentiality and anonymity of their personal information and responses, and their participation was voluntary.

4. Results

4.1 Measurement Model

The measurement model demonstrated satisfactory validity and reliability, as shown in

Table 4.2. All constructs showed suitable internal consistency, with Cronbach's alpha values ranging from 0.847 to 0.902 and the value of composite reliability 0.876 to 0.928, which exceeded the standard threshold level. Even though the AVE values of positive emotions 0.416 and negative emotions 0.450 were marginally below the standard recommended threshold of 0.50, their composite reliability values surpassed 0.70, which considerably supported the constructs' retention (Fornell & Larcker, 1981). Moreover, the discriminant validity was also confirmed with the HTMT values ranging from 0.194 to 0.295, which were also below the recommended threshold of 0.85. Additionally, the multicollinearity evaluation showed satisfactory VIF values for both the outer model (1.253–3.452) and inner model (1.041), which certified the absence of multicollinearity in the model (Hair et al., 2022)

Table 4.1: Measurement Model: Reliability, Validity, and Collinearity Assessment

Construct/Assessment	Cronbach's α	rho_A	Composite Reliability	AVE	HTMT Range	VIF Range
ATLE	0.902	0.908	0.928	0.72	0.194–0.295	—
PE	0.847	0.847	0.876	0.42	—	—
NE	0.866	0.862	0.891	0.45	—	—
Outer Model VIF	—	—	—	—	—	1.253–3.452

Inner Model VIF	—	—	—	—	—	1.041
Recommended Thresholds	≥ 0.70	≥ 0.70	≥ 0.70	≥ 0.50	< 0.85	< 5.00

4.2 Structural Model Results and Hypothesis Testing

In this study, the PLS-SEM bootstrapping results indicated that positive emotions (PE) significantly and positively predicted students' attitudes toward learning English (ATLE) ($\beta = 0.258$, $t = 6.044$, $p < 0.001$). Hence, H1 was supported. Moreover, negative emotions (NE) also revealed a significant positive association with students' attitudes toward learning English (ATLE) ($\beta = 0.136$, $t =$

3.298, $p = 0.001$), as the direction of their association was opposite to the hypothesized negative effect. Hence, H2 was not supported. These research findings further suggested that though positive emotions support students' favorable attitudes toward English language learning, some negative emotions may also be related to more positive attitudes of students toward English learning within the ESL Pakistani context.

Table 4.2

Hypothesis	Path Relationship	B	t-value	p-value	Decision
H1	PE $\rightarrow$ ATLE	0.258	6.044	0.001	Supported
H2	NE $\rightarrow$ ATLE	0.136	3.298	0.000	Not Supported

4.3: Coefficient of Determination (R^2)

The coefficient of determination in the model explained 9.9% of the variance in attitudes toward learning English (ATLE), i.e., ($R^2 = 0.099$),

indicating that students' emotions explain a significant but modest description of their attitudes towards learning English (ATLE).

Table 4.3:

Endogenous Construct	R^2	Explained Variance	Interpretation
Attitude toward Learning English (ATLE)	0.099	9.90%	Emotion variables describe a small but significant level of variance in students' attitudes towards learning English.

4.4 Summary of Findings

The findings indicated that both emotions significantly predicted students' attitudes toward learning English (ATLE). Particularly, positive emotions (PE), such as interest and joy, etc., significantly and positively predicted students' attitudes towards learning English (ATLE) and exhibited a much more robust predictive influence than negative emotions. Although students' negative emotions (NE), i.e., anxiety and boredom, were also significant, their relationship with students' attitudes towards learning English was positive rather than a negative effect, which emphasized the context-dependent role of students' negative emotions towards English language learning.

5. Discussion

This research analyzed the predictive influence of positive and negative emotions on undergraduate university learners' attitudes towards learning English (ATLE). The study findings indicated that emotions were significant predictors of students' language learning attitudes. Moreover, positive emotions (PE) significantly improved students' attitudes toward English learning (ATLE), which supports earlier SLA research and broaden-and-build theory of Fredrickson, indicating that positive emotions support and improve students' willingness to communicate (WTC), their learning involvement, and other dimensions of L2 learning motivation (Dewaele & MacIntyre, 2014;

MacIntyre & Gregersen, 2012). Furthermore, the research findings strengthened the existing research evidence by representing this association in the context of higher education in Pakistan.

However, students' negative emotions (NE) also positively predicted their attitudes toward English learning (ATLE), which was against the established hypothesis. Although earlier research has often linked negative emotions (NE) and anxiety with students' slow involvement and participation (Horwitz et al., 1986), the present research findings support the control-value theory of Pekrun, which proposes that students' negative emotions might be helpful in learning when they give importance to academic success and goals.

Additionally, even though positive emotions indicated a stronger influence in the present research, the students' negative emotions (NE) contribution suggested the context-dependent and complex nature of learners' emotions in relation to learning English as a second language, and their motivation and attitude towards learning English (ATLE) from the perspective of private sector universities of Pakistan. These research findings highlight the need for a more stable understanding of students' emotions and challenge the misconception that negative emotions (NE) are mostly harmful for students in SLA. Additionally, negative emotions (NE) do not always impede students' language learning; rather, they might occasionally play a supportive and adaptive role by guiding and motivating students in learning English, self-regulation, and perseverance (Pekrun, 2006; MacIntyre & Gregersen, 2012).

5.1 Implications

The study findings further extended SLA research by investigating positive and negative emotions simultaneously; they also provided meaningful suggestions for Pakistani English language teachers. For example, pedagogically, English language teachers need to foster students' positive emotions for better English language learning in the classroom, and they should motivate them to learn English effectively. Similarly, students' challenging negative emotions might also need to be regulated, monitored, and controlled by the

teacher in a classroom for maximum language learning outcomes.

5.2 Limitations and Future Research

This study used convenience sampling and students' reliance on self-report data, which limited the generalizability of the findings, and the use of a quantitative cross-sectional research design over other research methods also reflected a causal inference. Therefore, future research should consider mixed-method and longitudinal approaches with a more diverse population and a larger sample size to further strengthen the findings. Moreover, future research should also consider other variables such as personality traits, learning styles, and L2 learning motivation dimensions, i.e., Ideal L2 Self (IL2S), travel orientation (TO), cultural interest (CI), and willingness to communicate (WTC), etc.

5.3 Conclusion

Findings suggested that students' positive emotions (PE) significantly and positively predicted students' attitudes towards English language learning (ATLE), emphasizing the importance of students' positive emotions towards English language learning. Moreover, students' negative emotions (NE) were expected to have a negative influence, but they displayed a significant positive relationship with their attitudes toward English learning (ATLE). These research findings suggest the need for a positive learning environment that supports students' emotions for maximum learning outcomes; they also highlight the dynamic role of emotions in the ESL Pakistani higher education context. Finally, this research significantly contributes to the role of both positive and negative emotions in second language acquisition (SLA) literature by incorporating empirical evidence from private sector universities in Karachi, Pakistan.

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