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UNDERSTANDING ACHIEVEMENT EMOTIONS AND LEARNER ENGAGEMENT IN ENGLISH AS A FOREIGN LANGUAGE CONTEXTS THROUGH CONTROL-VALUE THEORY: A NARRATIVE REVIEW

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Abstract: Guided by the Control-Value Theory (CVT) (Pekrun, 2006), this narrative review synthesizes the existing literature on the relationship between achievement emotions and engagement in the English as a Foreign Language (EFL) education context. This paper reviews studies since the early introduction of CVT in 2002 up to the present (2026) in order to focus on both foundational concepts and the most recent developments in the field. Emotions such as enjoyment, boredom, and anxiety affect behavioral, cognitive, and social engagement via cognitive and self-regulatory pathways; however, the findings have been inconsistent across contexts highlighting how emotional valence and activation level lead to these inconsistencies. The review also explores the reciprocal relationship between achievement emotions and engagement, wherein emotions impact engagement, and engagement also influences emotions in return. It is also important to adopt context-sensitive research approaches or employ mixed-methods studies to effectively capture both individual emotional trajectories and generalizable patterns in learners' achievement emotions. Optimizing students' achievement emotions is therefore critical to sustaining high-quality engagement in the EFL classroom.

Keywords: achievement emotions, control-value theory, student engagement, English as a foreign language (EFL)

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KHẢO CỨU TRẦN THUẬT CẢM XÚC THÀNH TÍCH HỌC TẬP VÀ SỰ THAM KẾT CỦA NGƯỜI HỌC TRONG LỚP HỌC TIẾNG ANH DỰA TRÊN LÝ THUYẾT KIỂM SOÁT - GIÁ TRỊ

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Tóm tắt: Dựa trên Lý thuyết kiểm soát - giá trị (CVT) (Pekrun, 2006), bài nghiên cứu tổng quan này tổng hợp các nghiên cứu hiện có về mối quan hệ giữa cảm xúc thành tích học tập và sự tích cực của người học trong lớp học ngoại ngữ tiếng Anh. Bài viết này tổng hợp các nghiên cứu từ năm 2022 khi Lý thuyết kiểm soát - giá trị được giới thiệu cho đến nay. Các cảm xúc như: hứng thú, chán nản và lo âu có ảnh hưởng đến sự gắn kết của người học về mặt hành vi, nhận thức và xã hội thông qua các cơ chế nhận thức và tự điều chỉnh. Tuy nhiên, các kết quả trong nghiên cứu vẫn còn chưa nhất quán trong các bối cảnh khác nhau, cho thấy rằng sự khác biệt này có thể được lý giải bởi giá trị (valence) và mức độ kích hoạt (activation) của cảm xúc. Một điểm quan trọng của bài tổng quan là xem xét mối quan hệ tương tác qua lại giữa cảm xúc thành tích học tập và sự tích cực của người học, cho thấy cảm xúc ảnh hưởng đến sự tích cực, và sự tích cực cũng tác động lại lên cảm xúc. Bài viết cũng nhấn mạnh sự quan trọng của việc áp dụng các phương pháp nghiên cứu hỗn hợp và đặc biệt gắn với bối cảnh giúp ghi nhận hiệu quả hơn quá trình diễn biến của cảm xúc thành tích của người học vốn vừa khác biệt vì gắn với mỗi cá nhân nhưng cũng vừa có tính khái quát chung. Bài báo hy vọng việc tối ưu hóa cảm xúc thành tích của sinh viên sẽ được chú tâm hơn và thúc đẩy sự tham gia tích cực của người học trong lớp học ngoại ngữ tiếng Anh.

Từ khóa: cảm xúc thành tích học tập, lý thuyết kiểm soát giá trị, sự tích cực, lớp học ngoại ngữ tiếng Anh

1. Introduction

Educational psychology research has undergone a shift toward what scholars refer to as the emotional turn, marked by the growing recognition of emotions as central components of the learning process. Early models primarily focused on cognitive and motivational elements, including self-efficacy, strategy use, and achievement goals, and viewed emotions as peripheral reactions to academic contexts (Bandura, 1997; Pintrich, 2003). However, the development of neuroscience and cognitive psychology reveals that emotions are strongly connected to attention, working memory, executive function, and decision-making, which are essential for learning and development (Clore & Huntsinger, 2007; Immordino-Yang & Damasio, 2007). Consequently, emotions have been widely acknowledged as primary drivers of students' engagement and achievement rather than secondary byproducts of these learning processes.

Within this broader emotional turn, achievement emotions, defined as emotions directly related to academic activities or outcomes (Pekrun, 2006), have garnered increasing attention from researchers. The study of achievement emotions has gained rapid popularity across various educational fields, including mathematics, science, and second language learning,

particularly in EFL and Second Language Acquisition contexts, where research on students' test anxiety has historically dominated. Researchers now recognize that students experience a wide range of emotions and that each of these emotions can significantly influence their engagement patterns (Li & Dewaele, 2020).

The Control–Value Theory (CVT) of achievement emotions (Pekrun, 2006) is a well-established and commonly used framework to explain emotional processes and their core mechanisms in academic environments. The CVT model posits that people experience different achievement emotions based on their two main cognitive assessments about their ability to control learning activities and their perception of these activities' value, referred to as perceived control and perceived value, respectively. These emotions, in turn, influence engagement and performance through cognitive, motivational, and self-regulatory pathways. The CVT system differentiates two separate categories of emotion, which include valence (positive vs. negative) and activation (activating vs deactivating), to explain why emotions of similar valence, such as anxiety and hopelessness, may have markedly different effects on engagement.

This focus on achievement emotions is particularly meaningful in EFL contexts, such as in Vietnam and other exam-oriented educational systems, where learners commonly experience consistent academic pressure, high-stakes exams, and teacher-centered instructional strategies. A theoretically informed understanding of achievement emotions, as explained by CVT, is crucial for the Vietnamese EFL context, particularly in guiding both research and pedagogy, especially in terms of how emotions influence learner engagement.

Even though the interest in achievement emotions is expanding, evidence on their effects on engagement is inconsistent (Pekrun et al., 2002b; Shakki, 2023). One important reason for these discrepancies is that earlier investigations have used either broad affective categories of positive versus negative affect without further distinguishing the specific emotions and their activation. For instance, positive emotion (enjoyment) is highly related to engagement in some investigations, but shows weaker or domain-specific relations in other studies. Negative emotions manifest themselves even more diversely: whereas anxiety can prompt effort among some individuals, it may also undermine performance when worry distracts cognitive resources; hopelessness, in turn, consistently predicts withdrawal and disengagement (Pekrun et al., 2002a).

Given the landscape of existing research, this review aims to synthesize both theoretical and empirical studies about achievement emotions through the framework of CVT and specifically explore their effects on student engagement. The review focuses on three main objectives, which include: (1) clarifying the theoretical foundations of achievement emotions through CVT; (2) reviewing the nine specific achievement emotions that researchers have commonly investigated in educational settings; and (3) synthesizing evidence on the effects of these emotions on different dimensions of engagement. Hopefully, this review can provide a better understanding of emotional mechanisms underlying student engagement and underscoring relevant directions for future studies.

2. Methods

This review synthesizes the current literature on achievement emotions and learner engagement in EFL context, informed by the CVT (Pekrun, 2006). This review specifically utilizes Pekrun's CVT and his proposed framework of engagement, despite the existence of various models of engagement. Pekrun's frameworks offer a holistic and cohesive view of the impact of achievement emotions on learner engagement. Pekrun's CVT explains the influence

of emotions in academic contexts, highlighting the impact of perceived control and value on emotions, which subsequently influence engagement. Pekrun's framework of engagement also goes into more detail about the different dimensions of engagement and how emotions interact with these dimensions.

Besides, Pekrun's framework of engagement is chosen in that he is the originator of CVT; therefore, it would be a good starting point to understand the complicated link between emotions and engagement using his suggested framework of engagement.

2.1. Time Frame

This paper examines research conducted from the inception of the CVT (Pekrun et al., 2002b) to the present, emphasizing both fundamental principles and the latest development in the field.

2.2. Relevance to CVT and Engagement Framework

The review specifically focuses on studies that apply Pekrun's CVT and framework of engagement to examine the relationship between achievement emotions and learner engagement. The decision to use Pekrun's model of engagement is rooted in his own research on the reciprocal relationship between emotions and engagement, which provides an in-depth explanation of how emotions influence various forms of engagement in academic contexts. Unlike other models of engagement, Pekrun's framework explicitly connects emotional experiences with different types of engagement (cognitive, motivational, behavioral, and social), making it the ideal framework for understanding how achievement emotions shape engagement.

2.3. Study Selection Criteria

Studies were chosen in this review if they were related to the CVT and looked into the relationship between achievement emotions and learner engagement. The review gives more weight to studies published in peer-reviewed and high-ranking journals because they are more credible, but it also includes studies from reputable sources that may not always fall within the top tiers but are still significant in certain regional or disciplinary contexts, especially in Asia, where there are currently not many studies on this topic. These sources were selected for their academic significance and relevance to the study of achievement emotions and engagement in EFL contexts.

2.4. Synthesis Process

The literature was organized by mapping studies onto five dimensions of engagement (Pekrun et al., 2011), including cognitive, behavioral, motivational, cognitive-behavioral, and social-behavioral engagement, along with achievement emotions. It was easy to sort the emotions since most of them were straightforward throughout all of the literature. Identifying engagement dimensions, however, presented challenges since different studies utilize different frameworks. It could be cognitive, emotional, social, behavioural, or agentic engagement. For that reason, it was crucial to be very careful in identifying which framework or form of engagement matched Pekrun's categories. This process would enable a more detailed analysis of the relationship between achievement emotions and engagement and help identify inconsistencies in findings across contexts.

2.5. Diversity of Contexts

In order to prevent bias and gain a broad overview of the topic, studies were chosen from a number of educational settings. While the review considered articles conducted within

EFL settings, literature from other settings, both in terms of geographical, cultural, and instructional setting (such as face-to-face or distance learning) was also examined. Not only did this allow for the examination of a wider range of emotions and engagement patterns, but it also enabled an assessment of whether cultural differences could explain inconsistencies in earlier studies.

2.6. Study Design

Both theoretical studies and empirical studies were considered for inclusion in this literature review so as to provide a balance between theories and research findings. Emphasis was laid upon the articles employing CVT and dimensions of engagement aligned with Pekrun's framework. The rationale behind this was not only the identification of relationships between achievement emotions and various dimensions of engagement but also to find inconsistencies between findings and explore the reciprocal relationship between achievement emotions and engagement.

3. Control-Value Theory

3.1. Core Assumptions of the Control-Value Theory (CVT)

The CVT of achievement emotions (Pekrun, 2006) serves as the main theoretical framework that describes how emotions arise, develop, and operate in educational environments. The theory posits that students experience emotions due to two cognitive appraisals: perceived control over learning activities and outcomes, and the perceived value of these activities (Pekrun et al., 2007). Students develop their own beliefs about their abilities through control appraisals, which determine their perception of learning potential and their capacity to shape educational activities and learning outcomes. Control appraisals involve judgments about the controllability of actions and outcomes and the subjective probability of success. Specifically, CVT identifies two types of control assessment, which include prospective control appraisals or evaluations of future expectations, such as self-efficacy and action-outcome expectancies, and retrospective control appraisals that focus on past event causal attributions (Pekrun, 2006). Attributions to internal, controllable causes (e.g., effort) and internal, uncontrollable causes (e.g., low ability) have different emotional consequences.

In terms of perceived value, which may be viewed from either an intrinsic (interest, enjoyment) or extrinsic perspective (instrumental importance for future goals) (Heckhausen, 1991), the evaluation of task value depends on how students perceive the importance and desirability of their activities and outcomes. Learners initially judge the goal relevance of an activity, that is, whether it relates to their important personal goals, and then assess its goal congruence, referring to the extent to which the activity facilitates or impedes achievement of their goals. For example, before students take an important English proficiency test, an English mock test is typically perceived as highly goal-relevant because it is directly linked to students' goal to pass the exam. However, students' emotional responses are dependent on goal congruence: when learning activities are viewed as facilitating exam preparation, students are more inclined to experience enjoyment or hope; conversely, when tasks are regarded as hindering goal achievement due to excessive difficulty or insufficient guidance, anxiety or hopelessness may ensue.

According to CVT, perceived control and value appraisals are proximal factors directly triggering emotions. Besides proximal antecedents, the theory also proposes distal factors, which include self-concept, trait emotions, achievement goals, instructional practices, and

classroom climate. Although these antecedents do not directly elicit emotions, they exert their influence by shaping control and value appraisals, thereby indirectly influencing students' emotions. This hierarchical structure of CVT establishes a comprehensive and systematic framework to understand the cognitive processes through which achievement emotions arise, thereby laying the foundation for examining how these emotions influence learner engagement.

Pekrun et al. (2011) categorize achievement emotions into two main types based on their focus: activity-related emotions, which are linked to the process of engaging in academic tasks, such as the enjoyment of learning or the boredom experienced during repetitive or unchallenging activities, and outcome-related emotions, which are connected to the results of these activities, such as hope and pride for success or anxiety, shame, and hopelessness in the face of failure. In addition to this distinction, achievement emotions are also analyzed across two additional dimensions - valence (pleasant vs. unpleasant) and activation (activating vs. deactivating). Together, these dimensions form a three-dimensional taxonomy of achievement emotions, as shown in Table 1 below.

Table 1

A Three-Dimensional Taxonomy of Achievement Emotions

Object focus	Positive activating	Positive deactivating	Negative activating	Negative deactivating
Activity focus	Enjoyment	Relaxation	Anger, frustration	Boredom
Outcome focus	Joy, hope, pride, gratitude	Contentment, relief	Anxiety, shame, anger	Sadness, disappointment, hopelessness

* Note. Positive = pleasant emotions; negative = unpleasant emotions. (Adapted from Pekrun et al., 2002a)

While the taxonomy categorizes a broader range of emotions across three dimensions - valence, activation, and object focus - this review will concentrate exclusively on the nine discrete emotions, which are most frequently studied within CVT. These nine emotions capture the most common emotional responses that students experience in academic achievement contexts.

3.2. Discrete Achievement Emotions in Control-Value Theory

Discrete achievement emotions are a central component of CVT, as they describe learners' affective experiences in relation to academic activities and outcomes. In the present study, the focus is placed on class-related emotions, namely enjoyment, hope, pride, anger, anxiety, shame, hopelessness, and boredom. Relief was excluded because, within CVT, it is more appropriately conceptualized as a retrospective outcome emotion that arises after achievement-related tension or uncertainty has been resolved, making it more relevant to test or outcome situations than to ongoing classroom activity (Pekrun, 2006; Pekrun et al., 2011). By contrast, class-related emotions are tied more directly to students' immediate experiences during instruction.

4. Achievement Emotions and Learner Engagement

Emotions are considered very important in human learning and development. They have great influence on various cognitive processes such as attention, problem-solving, decision-making, and memory (Clore & Huntsinger, 2007; Loewenstein & Lerner, 2003). Nevertheless, a key limitation with most previous studies is that they have distinguished only positive and

negative effects without discriminating between valence and activation. This lack of differentiation makes it challenging to apply the findings to real-world academic contexts. For instance, hopelessness and anxiety can both be considered negative or unpleasant emotional experiences; however, while hopelessness can serve as a reason for students not to put in effort and be less likely to engage in tasks, anxiety can serve as a reason for students to exert more effort in order to avoid failure. From this perspective, Pekrun (2006) and Linnenbrink (2007) emphasize that it is important not only to distinguish between general categories of positive and negative emotional experiences but also to assess the degree of activation of these experiences. Accordingly, they identify four categories of emotional experiences: positive activating, positive deactivating, negative activating, and negative deactivating. This categorization enables researchers to examine the nuanced nature of emotional experiences and their impacts on engagement and learning outcomes.

Models of engagement have developed over the years from two-dimensional models that concentrated on the behavioral-affective dimension of engagement (Finn, 1989). Then came the extension of those models to incorporate cognitive as well as emotional engagement in learning. Fredricks et al. (2004) argue that cognitive and emotional engagement are critical components of engagement. More contemporary models of engagement incorporate social engagement (Wang & Degol, 2016; Martin & Rimm-Kaufman, 2015) and agentic engagement (Reeve & Tseng, 2011) to highlight the importance of active participation and student agency in the learning process.

Building on these models, Pekrun et al. (2011) justify their five-dimensional model of engagement based on the need for a more nuanced understanding of how emotions interact with various forms of student involvement in learning. These five dimensions are: cognitive engagement, motivational engagement, behavioral engagement, cognitive-behavioral engagement, and social-behavioral engagement. The inclusion of social-behavioral engagement, as well as cognitive-behavioral engagement, demonstrates a deeper comprehension of the role of emotions, specifically achievement emotions, in influencing engagement at various levels. The point worth noting here is that emotional engagement, such as learning enjoyment, is viewed as an antecedent, meaning that it is excluded from the model being presented.

As this review is grounded in CVT, a natural follow-up is the exploration of Pekrun et al.'s (2011) five dimensions of engagement. Through these five elements of engagement, this review will gain further insight into the relationship between emotions and engagement influenced by valence and activation. Each of these five dimensions proposed by Pekrun et al. (2011) is summarized in Table 2 below and synthesized in detail from 4.1 to 4.5.

Table 2

Summary of Pekrun et al. (2011)'s Engagement Dimensions and Emotional Influences

Dimension	Focus	Typical indicators	Illustrative emotional pattern (Valence × Activation)
Cognitive engagement	Learners' attention and mental investment in learning	Concentration, attentional control, deep processing, understanding	Affected by activating emotions; positive activating emotions (e.g., enjoyment) facilitate deep processing, whereas negative activating emotions (e.g., anxiety) may reduce working memory capacity.
Motivational engagement	Learners' willingness to invest effort and	Interest, effort investment, persistence, goal	Driven by valence; positive emotions foster intrinsic mastery goals, whereas negative activating emotions (e.g., shame) often shift

	pursue task-related goals	pursuit	focus toward performance-avoidance goals.
Behavioral engagement	Learners' observable participation in academic activities	Participation, attendance, on-task behavior, persistence	Primarily influenced by activation; activating emotions (both positive and negative) can sustain effort intensity, whereas deactivating states (e.g., hopelessness) tend to lead to disengagement.
Cognitive-behavioral engagement	Learners' strategic and self-regulated involvement in learning	Use of learning strategies, self-regulation, problem solving, monitoring	Positive activating emotions tend to support flexible strategy use and self-regulation, whereas deactivating or negatively activating states may narrow strategy use or weaken regulation.
Social-behavioral engagement	Learners' participation through interaction with others	Cooperation, discussion, peer support, collaborative participation	Supported by positive activating social emotions (e.g., gratitude), which foster collective agency. Negative activating emotions (e.g., social shame) may lead to social withdrawal or fragmented interaction.

4.1. Cognitive Engagement

Because working memory is limited, emotions can influence learning by drawing attention away from or toward academic tasks, thereby shaping learners' cognitive engagement. For example, anxiety has negative effects on students when they have to perform cognitively demanding tasks, as it creates distracting worries that pave the way for unwanted thoughts, diverting attention away from work and consuming working memory capacity, thus preventing successful task completion (Eysenck, 2014; Wine, 1971; Zeidner, 1998). Meinhardt and Pekrun (2003) reported that both positive emotions and negative emotions can reduce working-memory capacity and attentional resources. The research by Pekrun et al. (2010) showed that university students who experienced negative emotions such as anger, anxiety, shame, boredom, and hopelessness tended to think about unrelated things while their flow state and attention to tasks decreased. In contrast, students who experienced enjoyment during tasks demonstrated higher levels of flow and sustained attention to the task.

Shakki (2023) studied the relationship between EFL learners' engagement with a focus on the cognitive dimension and achievement emotions at Iranian universities. The research employed Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine data from 403 EFL learners and found that achievement emotions significantly predicted learner engagement. Specifically, the research showed that enjoyment, a positive activating achievement emotion, had a positive association with student engagement, whereas negative emotions, including anger, anxiety, and hopelessness, did not exert significant effects on students' engagement.

This inconsistency may result from contextual factors such as the learning environment, task types, or cultural differences. It is, therefore, important to take a context sensitive when studying achievement emotions. Negative emotions may hinder engagement in some situations but could also enhance effort in others under the influence of activation levels and perceived control (Pekrun, 2006).

4.2. Motivational Engagement

Motivation is the driving force that propels learners to reach their targets by directing goals, regulating effort intensity, and sustaining persistence (Schunk et al., 2008). In the

academic setting, it is possible to consider motivation toward task involvement as a form of engagement, as these processes are responsible for both initiating and sustaining goal-directed academic effort (Pekrun & Linnenbrink-Garcia, 2012). Emotion is assumed to elicit action. The conventional approach to emotion study holds that emotions serve to generate action impulses that help people prepare for their next actions. People experience particular action tendencies when they experience negative emotions, which include mechanisms such as fight, flight, or behavioral passivity. In EFL contexts, these mechanisms often manifest as linguistic avoidance, where students remain silent or limit their participation to protect their self-image from potential social embarrassment. Unlike negative emotions, which tend to restrict a student's focus to immediate avoidance, positive emotions promote a wider range of adaptive thoughts and actions, which supports Fredrickson's (2001) broaden-and-build theory. The theory states that positive emotions like joy and interest expand individuals' thought-action repertoires and foster exploratory behavior, such as the willingness to take risks with unfamiliar vocabulary or complex sentence structures. Thus, in the long-term, these emotional experiences build up a reserve of linguistic strengths students can call upon when facing challenges or stagnation in the language learning process.

Research findings indicate that positive emotions enable students to pursue mastery-approach goals, but negative emotions create obstacles for this goal pursuit. Evidence across K–12 and higher education contexts suggests that students' intrinsic motivation and interest are closely shaped by their emotional experiences (Daniels et al., 2009; Linnenbrink & Pintrich, 2002b; Pekrun et al., 2002a, 2002b). According to Nguyen (2023), in the specific landscape of English learning, positive emotions such as interest or excitement not only prompted students to participate more actively in class activities but also helped them change their perspective on learning English in general - shifting from viewing the language as purely academic requirement to a practical tool for communication and integration - thereby preventing potential boredom and promoting proactive engagement. This is further supported by recent findings in the Chinese EFL context, which suggest that emotional resources such as Foreign Language Enjoyment (FLE) may exert a more significant influence on students' classroom involvement than persistent effort alone (Jin, 2024).

Nevertheless, the cognitive-motivational model proposed by Pekrun (2006) states that the motivational impacts of these emotions need to be distinguished both by valence and activation. This model posits that while deactivating negative emotions, such as hopelessness or boredom, reduces motivational engagement, the effects of activating negative emotions like anxiety or shame are more complex. Paradoxically, as highlighted by Turner and Schallert (2001), these emotions can strengthen extrinsic motivation to invest effort in order to avoid failure. In many performance-driven EFL environments, students may maintain high levels of effort intensity driven by the need to avoid social disapproval or to meet examination requirements, even when their intrinsic enjoyment of the language remains low (Pekrun et al., 2010).

4.3. Behavioral Engagement

Behavioral engagement is viewed as the extent to which students put effort and maintain persistence in an academic task, with a focus on observable participation rather than the depth or quality of cognitive processing. There is a body of research on behavioral engagement that has produced mixed and, at times, contradictory findings about the impact of emotions on behavioral engagement. Research models show that positive emotions will reduce task engagement because they indicate a satisfactory level of goal attainment or a safe and non-threatening environment

(Schwarz & Clore, 1996), whereas other perspectives suggest that positive emotions free resources from threat and promote more expansive, task-related action (Fredrickson, 2001). The research by Carver and Harmon-Jones (2009) shows that negative emotions, including sadness and anxiety, intensify behavioral engagement by signaling insufficient progress or environmental threat, particularly in relation to approach and avoidance goals.

Findings also indicate that the relationship between emotions and behavioral engagement differs in terms of valence and activation. Negative deactivating emotions, such as hopelessness/boredom, are negatively associated with reduced effort and behavioral disengagement, whereas positive activating emotions, such as happiness, are positively and consistently linked to effort (Ainley et al., 2005; Linnenbrink, 2007). Converging evidence suggests that other feelings, like anger, anxiety, or shame, which are negative and activating, generally result in negative behavioral engagement, but also act as energizers in certain situations for some students (Pekrun et. al., 2002a; Turner & Schallert, 2001).

In online learning contexts, Ding and Zhao (2020) found that the influence of learner emotions on self-perceived achievement is primarily mediated by their effects on behavioral engagement within a small private online course. Particularly, enjoyment, excitement, boredom, and annoyance were identified to have a predictive relationship with behavioral engagement in instructional videos and assignments. Among the emotions identified, the predictive relationship of excitement was more significant upon both video and assignment engagement. The study underlines the important role of positive activating emotions in maintaining learners' behavioral engagement in online learning environments. A recent study in Vietnam by Nguyen and Hoang (2025) with 226 English-major students focused on four discrete emotions in online learning: hope, enjoyment, anxiety, and boredom. The results showed that hope and enjoyment were above the neutral level, while anxiety and boredom were below, and that positive emotions were positively associated with learning effort - a manifestation of behavioral engagement - whereas negative emotions were negatively associated.

4.4. Cognitive Behavioral Engagement

Cognitive-behavioral engagement is defined by Pekrun and Linnenbrink-Garcia (2012) as the deliberate use of advanced cognitive and self-regulatory processes during learning, such as strategic problem solving and metacognitive control. The authors point out that this form of engagement represents a qualitative application of effort and should not be confused with automatic cognition or behavioral engagement. Cognitive-behavioral engagement involves three main aspects, namely problem solving, learning strategies, meta-strategies, and self-regulation.

Positive moods have been shown experimentally to promote flexible, creative, and holistic problem-solving by facilitating heuristic and exploratory thinking, whereas negative moods promote more focused, detail-oriented, and analytical approaches to problem-solving (Fredrickson, 2001; Clore & Huntsinger, 2007). The mechanisms underlying these processes show that positive affect serves as a signal of safety and undergirds cognitive broadening, whereas negative affect signals problems that necessitate analytical focus, and additional mechanisms involving dopamine-related flexibility and effortful “mood repair” processes (Ashby et al., 1999; Bless et al., 1996).

In terms of learning strategies, positive activating emotions such as enjoyment of learning are assumed to induce flexible, holistic learning approaches, including elaboration, organization, and critical thinking. In contrast, negative emotions tend to lead to less adaptable, detail-oriented approaches, such as rote learning (Linnenbrink & Pintrich, 2002a; Pekrun et al.,

2002a, 2004). On the other hand, shallow information processing and a low application of intensive learning strategies are found in deactivating emotions regardless of their valence.

Self-regulated learning encompasses metacognitive, meta-motivational, and meta-emotional strategies, which help students set goals, control, and adjust learning processes to meet task demands (Wolters, 2003). In order for these processes to happen, students need to possess cognitive flexibility. Positive emotions are associated with the use of self-regulation strategies and the application of meta-strategies, while negative emotions may lead learners to seek external guidance. This relationship may be reciprocal because effective self-regulation can result in enjoyment, and external direction can induce anxiety in self-regulated learning situations (Linnenbrink & Pintrich, 2002a; Pekrun et al., 2002a, 2004, 2010).

In the context of the digital EFL classroom, the study by Shao et al. (2026) reinforced the notion of cognitive behavioral engagement by examining the importance of self-regulation in learning strategies. The study found that the construct is evident through the means by which learners employ deep processing strategies, such as the learners' attempts to summarize new topics in their own words. Interestingly, the study found that, although pride is a powerful motivator for learners to engage in such strategic behaviors, shame does not necessarily influence cognitive behavioral processing in the context of a MOOC (Massive Open Online Course), possibly because of the counterbalancing effects of activating emotions.

4.5. Social Behavioral Engagement

Given the current emphasis on constructivist approaches to learning, interaction between students is a factor that has taken a significant place in learning and achievement. Students are required to interact socially with their peers. Social-behavioral engagement refers to students' participation in educational activities through peer interaction, involving both basic interaction (such as listening, responding, and participation in discussion) and higher-level collaborative behaviors that directly support learning. This form of engagement underscores the social and interactive aspects of learning, where emotions are inherent in (Linnenbrink-Garcia & Pekrun, 2011). This type of engagement is distinguished from the concept of emotional engagement and highlights the importance of high-quality peer collaboration in facilitating learning (Appleton et al., 2008).

Empirical findings across different learning environments, from traditional to online classrooms consistently demonstrate a close connection between emotions and social-behavioral engagement. Positive emotions, such as happiness and calmness, typically facilitate listening, peer support, and cooperation. This positive relationship is demonstrated in both laboratory and classroom contexts (Do & Schallert, 2004; Linnenbrink-Garcia et al., 2011) and is further supported by large-scale EFL research. For instance, Dewaele and Li (2021) investigated the relationships between perceived teacher enthusiasm, student emotions (enjoyment and boredom), and social-behavioral learning engagement in a mixed-methods study with 2,002 EFL learners in China. Their findings showed small to large correlations between these variables, suggesting that teacher enthusiasm indirectly affected student engagement through its impact on the learners' emotional experiences.

On the other hand, negative deactivating emotions such as tiredness and boredom may lead to reduced engagement, causing social loafing and social withdrawal in group work (Do & Schallert, 2004; Dewaele & Li, 2021). Nevertheless, there are some situations in which negative emotions enhance social-behavioral engagement rather than uniformly diminishing it (Linnenbrink-Garcia et al., 2011).

Beyond the valence of emotions, research also suggests that the dynamic nature of emotional experiences is key to understanding social interaction. Research on online learning environments indicates that social interactions are more emotionally engaging than technological ones, and that emotional fluctuations - rather than average emotional intensity - are linked to higher levels of online engagement (Nummenmaa & Nummenmaa, 2008; Vuorela & Nummenmaa, 2004; Wosnitza & Volet, 2005). This dynamic perspective is echoed in the Vietnamese EFL context, where Dao and Sato (2021) discovered that positive emotional engagement during task-based interactions is a dynamic construct, characterized by fluctuations even within brief intervals. Results from their study showed that higher levels of positive emotions greatly improved language production and collaboration, but they did not always result in a greater focus on linguistic accuracy. This means that rather than serving as a catalyst for formal language analysis, positive affect may serve as a stimulant for social fluency and collaborative effort in peer-to-peer contexts.

In conclusion, the examined studies indicate that positive emotions are more consistently linked to cooperation, peer support, and collaborative participation, whereas the effects of negative emotions are less consistent and more dependent on their specific form, the interactional context, and the larger instructional environment.

4.6. Summary

The findings on the relationships between achievement emotions and learner engagement have yielded mixed results, where positive emotions are typically found to facilitate engagement, and negative emotions exhibit more inconsistent effects across educational settings. These mixed findings underline the nuanced nature of emotions if considered in terms of valence and activation. To be specific, while negative deactivating emotions, such as boredom, tend to cause disengagement, negative activating emotions, such as anxiety and anger, may trigger varying outcomes depending on contextual factors (Pekrun, 2006).

In summary, the current review of existing literature indicates that discrepancies in the research on the topic do not simply indicate contradiction. Rather, they reflect a more complex relationship between achievement emotions and engagement, where positive emotions are more consistently associated with positive engagement, while negative emotions demonstrate more variable patterns, depending on the level of activation and the dimensions of engagement that are examined. The inconsistencies might be better interpreted as a result of conceptual variation in the operationalization of key constructs, together with contextual and methodological differences.

5. Implications

5.1. Pedagogical Implications for Engagement

As emphasized by Pekrun and Linnenbrink-Garcia (2012), “emotions are critically important for students’ engagement with academic tasks” (p. 278). This statement is very meaningful in EFL contexts in that effective learning requires sustained cognitive effort, frequent social evaluation, and continuous exposure to linguistic challenges. Within the framework of CVT, the present review highlights the need to utilize instructional practices that positively shape students’ control and value appraisals, thereby triggering achievement emotions and enhancing engagement.

An essential aspect in promoting learner engagement is the improvement of learners’ perceived control over language tasks. This can be achieved by helping students set clear task goals, scaffolding instructional sequences, and giving timely formative feedback. Such

practices may reduce uncertainty and promote learners' sense of competence, which enhances positive activating emotions such as enjoyment and hope. Once the learners feel that the tasks are manageable and that success is attainable, they are more likely to dedicate their full attention and cognitive resources to learning activities.

Equally important is the enhancement of the perceived value of learning tasks in EFL contexts. According to Guariento and Morley (2001), meaningful tasks that promote communication as well as the authenticity of language tend to be more engaging for the learners. The same happens when the tasks are related to learners' personal, academic, or professional purposes. Nguyen and Tran (2024) reported that instructional practices such as mindfulness, collaborative learning, and gamified activities fostered positive emotions, enhanced foreign language enjoyment and improved learning outcomes (Nguyen & Tran, 2024).

The framework of CVT also posits that not all negative emotions should be considered as being detrimental to engagement. While deactivating emotions such as boredom and hopelessness are consistently linked to disengagement, activating negative emotions like anxiety may temporarily energize effort (Pekrun et al., 2010). However, when the intensity of such emotions exceeds learners' perceived control, they may undermine cognitive engagement. Therefore, pedagogical practices need to focus on reducing deactivating emotions and regulating the intensity of activating negative emotions to promote emotionally supportive learning environments.

This is also consistent with evidence from the Vietnamese EFL context. Nguyen and Tran (2024), for example, found that interventions involving mindfulness, collaborative learning, and gamified activities helped promote positive emotions and foreign language enjoyment, suggesting that emotionally supportive instructional practices may strengthen learner engagement.

5.2. Methodological Implications for Research on Achievement Emotions and Engagement

The literature reviewed also sheds light on methodological implications for future studies on achievement emotions and engagement.

First, achievement emotions vary according to contexts; it would be advisable for scholars to take a context- and task-specific perspective instead of relying on global or trait-like measures of emotions and engagement. For instance, Shakki (2023) observed that in Iranian EFL classrooms, enjoyment was a good predictor of engagement while negative emotions had less impact, while in Vietnamese EFL online learning, as identified by Nguyen and Hoang (2025), hope and enjoyment correlated positively with the efforts towards learning while anxiety and boredom correlated negatively. Likewise, Ding and Zhao (2020) reported that in online learning, various emotions forecasted behavioral engagement differently across videos and assignments.

Second, future studies can benefit from a mixed-methods design that can utilize the strengths of both qualitative and quantitative approaches. The qualitative method can be beneficial for investigating learners' experience of emotion in relation to engagement, while the quantitative method is necessary for the testing of theoretically derived hypotheses about relationships between emotion and engagement. The combination of these methods allows researchers to study both the processes and outcomes involved comprehensively.

Third, the dynamic and reciprocal relationship between emotions and engagement suggests the need for longitudinal and process-oriented study designs. Cross-sectional study designs only provide information about the relationship between emotions and engagement at a particular point

in time. It may fail to capture the dynamic and reciprocal relationship between emotions and engagement. Longitudinal, or experience sampling design, may be more effective in demonstrating how achievement emotions and engagement develop and interact with one another.

Finally, as suggested by Pekrun (2006), a combination of both individual-level emotional trajectories and generalizable patterns across learners should be considered. This approach may be useful for understanding how a particular achievement emotion can be a facilitator of engagement for certain individuals, while acting as a hindrance for others.

6. Limitations of the Review

This review's limitations lie in its narrative design and its intentional focus on research that aligns with the CVT and engagement framework proposed by Pekrun. While this approach helped to achieve theoretical consistency, it narrowed the number of studies under review and could have overlooked other relevant research that used different models of engagement. Moreover, the mapping of various engagement dimensions onto Pekrun's was unavoidably interpretive. Last but not least, the small sample size of EFL-related studies, especially those conducted in Asian settings, further narrows the applicability of contextual insights drawn from the review.

7. Conclusion

Through the lens of CVT, this review has synthesized theoretical and empirical research on the relationship between learner engagement and achievement emotions. The evidence reviewed indicates that achievement emotions play a pivotal but complex role in influencing students' engagement with academic tasks in a variety of educational contexts, especially in EFL learning. Emotions have not functioned as peripheral or epiphenomenal experiences; instead, they are essential to guide attention, sustain motivation, invest effort, and engage cognitively and socially in learning activities.

The review also emphasizes that there are frequently conflicting results regarding the relationships between achievement emotions and engagement. Based on CVT, these conflicting findings can be explained by a number of interrelated factors: the difference in emotional valence and activation, the multi-dimensional concept of engagement, and the context-dependent nature of achievement emotions. Similar valence emotions can have very different effects depending on whether they are deactivating or activating, and they can have different effects on behavior, motivation, social engagement, and cognition. Furthermore, it is impossible to assume that achievement emotions' effects on engagement will be consistent across contexts because they emerge in relation to particular tasks, outcomes, and instructional settings.

The above-mentioned theoretical insights have underscored the contribution of CVT as a comprehensive framework that helps explain both consistent and inconsistent findings in the literature. Through cognitive, motivational, and self-regulatory pathways, CVT explains how learners' control and value appraisals lead to distinct achievement emotions, which in turn affect engagement. Another highlight of the theory is to point out the dynamic and reciprocal nature of the relationship between achievement emotions and engagement.

Hopefully, this review can add to the literature by presenting a sophisticated and theoretically supported understanding of achievement emotions and their relationship with engagement. However, its scope is limited by its focus on achievement emotions within the Control–Value Theory framework. The review suggests that more conceptual precision, context-sensitive inquiry, and methodological approaches that can capture the dynamic

interaction between achievement emotions and engagement are necessary to add to the depth of this research topic. The development of strong theoretical frameworks and pedagogically significant insights into the emotional underpinnings of student engagement in EFL and other educational contexts requires these initiatives.

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