

*Modeling the associations between L2 teacher support and EFL learners' reading motivation: The mediating impact of reading enjoyment, anxiety, and boredom*

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Abstract

The present study aimed to explore the association between 302 (93 males and 209 females) English as a foreign language (EFL) learners' perceived teacher support (i.e., personal support and academic support) and their reading motivation. This inquiry also sought to assess the potential mediating influences of second

or foreign language (L2) boredom, anxiety, and enjoyment on the interplay between the constructs under investigation. The results indicated a significantly strong and positive relationship between personal and academic teacher support and reading motivation. While L2 reading boredom and anxiety exhibited strong negative correlations with the two facets of teacher support, L2 enjoyment was positively correlated. Additionally, L2 reading enjoyment displayed a strong association with reading motivation. The results also revealed that over half of the variance in L2 reading motivation could be predicted by teacher support, along with the mediating influences of learner emotions. The findings are discussed in connection with educational theories, and implications are drawn for teaching.

*Keywords:* L2 teacher support; reading motivation; L2 boredom; anxiety; enjoyment

## 1. Introduction

Motivation is the main impetus and driving force that initiates and helps sustain second or foreign language (L2) learning (Dörnyei, 2014). While the construct of L2 motivation is commonly linked with overall L2 acquisition (Danesh & Shahnazari, 2020), recent research in the field has delved into exploring the construct in relation to specific language skills, including listening, speaking, and writing (e.g., Solhi et al., 2024; Zhang et al., 2020). Specifically, the L2 reading skill has been shown to be closely associated with L2 motivation (Wang & Gan, 2021). In other words, L2 motivation has a major influence on L2 learners' reading proficiency, engagement, and willingness to engage in L2 reading activities (Dhanapala & Hiramawa, 2016). Additionally, given that L2 motivation is related to perseverance of effort and consistency of interest in L2 learning (Pourgharib & Shakki, 2024; Teimouri et al., 2022), motivated L2 readers are more likely to invest effort in developing their L2 reading skills and strategies (Dhanapala & Hiramawa, 2016).

The major role of the L2 teacher as an antecedent of learner motivation has been acknowledged in L2 research (Derakhshan & Shakki, 2024; Derakhshan et al., 2023; Lee et al., 2020). To be more precise, research has shown that both academic and personal support from teachers have an essential influence in shaping the motivational orientations and academic engagement of learners, both in general education and L2 learning contexts (Derakhshan et al., 2023; Solhi, 2023). Teacher support has also been found to influence L2 reading motivation (Lee, 2018). Feeling supported can positively impact L2 students' attitudes towards learning, their motivation, and their overall well-being (Derakhshan et al., 2022). Indeed, the major impact of support provided by teachers on L2 learners' motivation may lie in their ability to create a positive learning environment, offer

personalized guidance, and foster a sense of relatedness (Solhi, 2023), all of which may enhance learners' willingness and motivation to engage with reading materials in the language classroom. Thus, the pivotal role of teacher support in shaping L2 learners' emotional dispositions in the classroom cannot be underestimated (Shakki, 2022; Wu et al., 2023) as L2 teacher support directly helps alleviate negative emotions, such as anxiety and boredom, and boost positive emotions including enjoyment in class (Liu et al., 2023; Zhao & Yang, 2022). This can consequently contribute to a more engaging and motivating L2 learning environment. Thus, understanding and addressing students' perceptions of support are essential for fostering a supportive learning environment conducive to academic success and personal growth.

More specifically, reading enjoyment plays a significant role in fostering motivation and cultivating interest in engaging with reading materials (Ma et al., 2021). Given the feeling of enjoyment in L2 learning promotes positive attitudes towards reading, it can enhance L2 learners' overall reading proficiency and language development. Research has specifically indicated that when coupled with L2 teacher support, L2 learning enjoyment is more likely to impact academic achievement in L2 learning (e.g., Zhao & Yang, 2022). Considering the influence of students' motivation driven by enjoyment on their academic attainment (Zaccoletti et al., 2020), it becomes crucial to examine the factors that contribute to students' sense of enjoyment in the overall process of L2 learning, particularly L2 reading. Despite the previous research on the mediating impact of L2 learning enjoyment on the association between L2 teacher support and academic achievement (Zhao & Yang, 2022), how this positive emotional disposition specifically influences the relationship between L2 teacher support and reading motivation remains underexplored. Illuminating this issue would help better understand how positive emotions fostered by teacher support can influence L2 learners' domain-specific motivation.

It is equally important to consider and address the presence of negative emotions, such as boredom and anxiety, which are likely to hinder student motivation and academic achievement (Derakhshan & Fathi, 2024; Li, 2021; Zaccoletti et al., 2020). The perception of boredom in L2 reading can be influenced by a range of factors, including task characteristics, inactivity, instructional strategies, and individual differences (Kruk, 2021). Given that L2 boredom negatively influences student motivation (Pawlak, Zarrinabadi, et al., 2022), understanding the way this negative emotional experience can impact L2 reading motivation appears to be a fruitful research avenue in L2 studies. In addition, L2 anxiety is a different negative emotional experience that is closely related to L2 reading skill (Chan et al., 2024; Khajavy et al., 2022). Specifically, the feeling of anxiety in L2 reading may interact with L2 learners' mindset and learners with a fixed

mindset (i.e., the belief that abilities are unchangeable) may experience heightened levels of L2 reading anxiety (Khajavy et al., 2022), which can impede their ability to fully utilize their cognitive resources for reading comprehension. Additionally, although L2 reading may involve relatively less interpersonal communication compared to speaking or listening activities in L2 learning, exposure to novel writing systems in L2 reading can potentially trigger anxiety. This is because encountering unfamiliar material and struggling to decode words can present challenges, which may result in limited comprehension of the text, and consequently contribute to feelings of anxiety in L2 reading (Saito et al., 1999).

Although there has recently been an increasing focus on the exploration of L2 learners' emotional experiences, such as anxiety, boredom, and enjoyment in the context of language education (e.g., Bensalem et al., 2024; Botes et al., 2022; Derakhshan & Azari Noughabi, 2024; Dewaele et al., 2022; Li et al., 2021; Solhi et al., 2024), most research has concentrated on general learner emotions in L2 learning rather than on specific language learning skills, such as reading, listening, and speaking (Khajavy et al., 2022). More specifically, while the constructs of foreign language enjoyment (FLE), foreign language boredom (FLB), and foreign language anxiety (FLA) have been scrutinized in a wealth of L2 studies, the way these L2 learner emotions contribute to motivation related to language skills such as L2 reading remains unexplored (Pawlak et al., 2021, 2023). Furthermore, although the beneficial effects of L2 teachers' personal and academic support on learners' general L2 motivation have been acknowledged, the influence of L2 teacher support on L2 learners' reading motivation has not been investigated. Thus, the present study sought to bridge the existing gaps in L2 research, highlighting that L2 teachers' academic and personal support may exert an essential influence on shaping L2 reading motivation while considering the mediating impacts of FLE, FLB, and FLA as influential affective factors in understanding the complex dynamics of L2 reading engagement.

## 2. Review of literature

### 2.1. L2 teacher support

Teacher support, broadly encompassing various forms of guidance, assistance, and friendship provided by teachers, comprises two distinct facets: *academic support* and *personal/emotional support* (Affuso et al., 2023). While the former involves assisting L2 learners with their learning-related needs, the latter primarily focuses on the emotional aspect of teacher support in L2 classrooms (Derakhshan et al., 2023). L2 teachers' personal/emotional support can be evident through informal discussions or showing empathy towards students throughout

the L2 learning stages, while from an academic perspective, an L2 teacher can instrumentally support learners by sharing useful books and materials, giving recommendations on learning resources, providing feedback sessions, and using different modalities in teaching, focusing on the content of what they learn (Affuso et al., 2023; Yüksel et al., 2024). Both facets of L2 teacher support are interconnected and reinforce each other (Solhi, 2023). Undoubtedly, effective teachers employ various strategies to establish an emotionally supportive classroom environment characterized by collaboration and sharing, fostering a sense of the class as a cohesive learning community (Shakki, 2023).

Research findings have indicated that support provided by L2 teachers is linked to learner engagement (Shakki, 2022), L2 grit (Derakhshan et al., 2023), academic achievement (Wang et al., 2021), and positive academic emotions (Pourgharib & Shakki, 2024). Luan et al.'s (2020) study with a group of university English as a foreign language (EFL) learners indicated that teacher support influences various dimensions of student engagement in L2 learning. Similarly, in Wang et al.'s (2021) study, L2 teacher support had a positive impact on low-ability groups' level of proficiency in English. Indeed, this finding highlights the essential impact of L2 teacher support on facilitating the progress of learning for L2 students who may encounter challenges in the initial stages of L2 acquisition. Derakhshan et al.'s (2023) study with EFL university students also demonstrated that L2 teachers' academic and social support can significantly promote L2 learners' consistency of effort and constancy of desire to learn.

The link between L2 teacher support and achievement emotions has also been recognized in L2 studies (e.g., Shakki, 2023; Zhao & Yang, 2022). These positive emotions, in turn, contribute to increased engagement in L2 learning. Botes et al.'s (2021) study results showed a close connection between L2 teacher support and FLE. Botes and her colleagues assert that teacher appreciation is one of the fundamental dimensions of FLE. In a study conducted by Zhao and Yang (2022), perceived teacher support had a significant correlation with FLE, FLB, and engagement. More precisely, L2 learners' perception of teacher support showed a positive association with FLE and negatively impacted their level of FLB. Indeed, a factor closely aligned with teacher support and learner emotions is motivation (Affuso et al., 2023). Given that L2 teacher support exerts a considerable and direct influence on L2 motivation, it may also have a major impact on fostering L2 reading motivation.

## 2.2. L2 reading motivation

Reading motivation is commonly perceived as the willingness to engage in and maintain reading practices, and it exerts a major influence on promoting reading (Ro, 2018).

Drawing upon social cognitive theory (Bandura, 2001), self-determination theory (SDT) (Deci & Ryan, 2012), and expectancy-value theory (Wigfield & Eccles, 2000), L2 reading motivation can be operationally defined as the cognitive, emotional, and/or social impetus that drives L2 learners to engage in reading activities in the target language.

The impact of L2 teacher support on L2 reading motivation has been confirmed in L2 research (e.g., Lee, 2018). In Guthrie et al.'s (1996) qualitative study, L2 learners' perception of being recognized by teachers, which is a manifestation of social support provided by L2 teachers, was identified as one of the antecedents of reading motivation. This highlights the constructive impact of social support provided by L2 teachers on fostering L2 reading engagement (Shakki, 2023). Dhanapala and Hiramawa (2016) probed the influence of L2 reading motivation on text comprehension. Results demonstrated that EFL university students' intrinsic motivation was positively associated with their reading comprehension, whereas extrinsic motivation was negatively linked to text comprehension. Indeed, their study highlighted the significance of learner-internal motivational factors in predicting L2 reading comprehension. The finding suggests that L2 teachers' academic and social support can play a crucial role in fostering intrinsic motivation by creating engaging and meaningful reading experiences for L2 students. In their study, Wang and Gan (2021) developed and validated a reading motivation questionnaire specifically designed for the EFL context. Their results supported the notion that L2 reading motivation is multifaceted, identifying five distinct, but interconnected, dimensions (see the section on instruments). In Wang and Gan's (2021) study, the second most influential factor identified in EFL reading motivation was L2 reading enjoyment, which is commonly defined as a long-lasting interest in L2 reading and is recognized as a prominent contributor to intrinsic reading motivation.

The effect of positive and negative emotions, including FLE, FLB, and FLA on skill-based L2 achievement has been demonstrated in Li et al.'s (2023) study, in which L2 boredom exhibited the most pronounced negative influence on writing achievement, whereas enjoyment had positive effects. The findings suggest that FLA, FLB, and FLE shape different L2 production skills, including L2 writing, and are linked to L2 motivation. Further research exploring the specific relationships between these learner emotions and L2 reading motivation would be valuable in expanding our understanding of the factors that impact L2 learners' engagement and success in reading activities.

### 2.3. L2 reading boredom

FLB is a low-arousal negative emotion (Li et al., 2021; Pawlak, Kruk, et al., 2022). It arises when L2 learners engage in activities that are either excessively or insufficiently

challenging or lack meaning, relevance, or significance (Kruk et al., 2021; Pawlak et al., 2020; Zawodniak et al., 2023). FLB is also hypothesized to affect L2 reading practices, impeding learners' ability to develop strong reading skills and hindering their overall progress in L2 reading (Kruk, 2021; Shehzad et al., 2020). Thus, L2 reading boredom can be conceptualized as a skill-specific low-arousal negative emotion that is likely to inhibit L2 learners' ability to develop reading skills and lower their engagement and motivation in reading activities (Derakhshan et al., 2022).

FLB has been found to be influenced by various internal and external factors (Kruk, 2016; Kruk et al., 2021; Pawlak et al., 2020; Zawodniak et al., 2023). It can arise from engaging in repetitive and unstimulating activities, encountering teacher behaviors characterized by excessive control or inadequate support, and facing challenges related to linguistic proficiency (Kruk et al., 2021; Pawlak et al., 2021; Pawlak, Kruk, et al., 2022; Solhi et al., 2023; Zawodniak et al., 2023). These studies highlight the multifaceted nature of FLB and emphasize the role of different factors in its emergence. Despite a wealth of studies on the antecedents, impetuses, and consequences of FLB in L2 learning (e.g., Derakhshan et al., 2021a, 2021b, 2023; Kruk et al., 2021; Li, 2021; Li et al., 2021; Pawlak et al., 2021; Pawlak, Kruk, et al., 2022; Solhi, 2024; Zawodniak et al., 2023), the research on the association between FLB and various language skills, including reading, is in its nascent stages. In Shehzad et al.'s (2020) study with university EFL learners, L2 reading boredom was found to be closely linked to reading comprehension. Shehzad and his colleagues also revealed that L2 reading boredom is positively associated with the strategies that EFL learners use to cope with boredom.

In Kruk's (2021) case study with an English student, the experience of FLB during L2 reading was found to be influenced by various elements, such as the nature of the task, lack of arousal, instructional strategies, and individual differences. Other studies have adopted mixed-methods approaches and reported an increase in boredom level of L2 students in reading comprehension skills (Kruk et al., 2021; Pawlak et al., 2021). Li (2022) also examined the association between FLB and L2 teacher factors concerning the allocation of time to various L2 skills in class. The findings revealed a significant negative association between FLB and L2 reading, and L2 learners reported higher levels of boredom when their English teachers dedicated more time to reading activities. The result is consistent with the previous investigation by Li (2021), which also indicated that L2 reading in the classroom is perceived as the most boredom-inducing activity.

#### 2.4. L2 reading anxiety

Another negative emotion that is closely associated with FLB is *foreign language anxiety* (FLA) (Dewaele & Li, 2021; Horwitz, 2001), which is deemed to be domain-

specific and extends to the domain of L2 reading (Li, 2022). Anxiety is a common negative emotion in L2 learning, given the complexities involved in learning another language (Dewaele & Li, 2021). In L2 reading, FLA is a significant skill-specific anxiety, which is prevalent in foreign language education (Li, 2022). The construct refers to L2 students' perceived discomfort, fear, and stress while reading a foreign language passage. This sense of discomfort drives students to try to understand all words and materials assigned to them (Saito et al., 1999). For years, researching reading anxiety was confined to its conceptualization, measurement, and factorial structures (Li, 2022; Lu & Liu, 2015). More recently researchers have realized that the degree and depth of reading anxiety depend on the context, attitude, and writing system of the language, which is presenting the passage (Li, 2022). Arguing against the unidimensional conceptualization of reading anxiety in L2 contexts, Zoghi (2012) conducted a qualitative study that proved the construct to be multifaceted with three sub-factors of top-down (related to readers), bottom-up (related to the text) and classroom reading anxiety (related to the context and stakeholders). It is now a common belief that reading anxiety varies from general foreign language anxiety in that it is more specific and skill-related (Li, 2022). In a study conducted by Khajavy et al. (2022), the fixed mindset of L2 learners was identified as a significant positive predictor of L2 reading anxiety. The finding highlights the negative impact of a fixed mindset on learners' emotional experiences, suggesting that L2 learners with a fixed mindset are more likely to experience anxiety in L2 reading tasks. In other words, L2 learners' self-evaluation of their language ability and the perception that their L2 learning ability is predetermined are factors contributing to a fixed mindset, which can ultimately increase anxiety and limit their motivation in L2 learning.

Moreover, previous research has indicated that high levels of self-efficacy, language competence, and strategy use can minimize reading anxiety in learners (Graham et al., 2020; Saito et al., 1999). Another line of research on L2 reading anxiety has been unraveling the impact of proficiency level, gender, and reading tasks on students' perceived anxiety in reading (Ghaith, 2020; Li, 2022). Meta-analytic studies have also begun examining L2 reading constructs, especially reading anxiety and comprehension (Li, 2022). Although the available studies of L2 reading anxiety have clarified its nature and sources, the impact of psycho-affective factors pertaining to L2 teachers and learners on the construct has remained under-researched.

## 2.5. L2 reading enjoyment

The concept of FLE was introduced by Dewaele and MacIntyre (2014). They explained that enjoyment goes deeper than mere pleasure because it is a created,



complicated, and intellectual emotional experience. They later defined FLE as “a complex emotion, capturing interacting dimensions of the challenge and perceived ability that reflect the human drive for success in the face of difficult tasks” (Dewaele & MacIntyre, 2016, p. 216). Dewaele and MacIntyre (2016) carried out an exploratory factor analysis of their original dataset and found two dimensions for FLE: *FLE-social* and *FLE-private*. The first dimension was related to relationships with peers and the teacher, and the second referred to the positive inner experience of the learner. Later reanalysis of the original database by Botes et al. (2021), resulted in a 3-factor hierarchical model, with a higher-order FLE factor and three dimensions. The original *FLE-social* from Dewaele and MacIntyre (2016) was split into a first dimension, called *teacher appreciation*, and a second dimension, labeled *FLE social* – referring to peers. The third dimension was identical to *FLE-private* and renamed *FLE personal* (Botes et al., 2021). Li et al. (2018) found a similar factor structure using the Chinese FLE scale.

Research has shown that despite the fact that FLE and FLA are moderately negatively correlated, both emotions can co-occur in certain high-stake activities, such as public speaking (Dewaele & MacIntyre, 2014). FLE has been found to be negatively correlated with FLB in several studies (Dewaele & Saito, 2024; Kruk, 2022; Kruk & Pawlak, 2022; Li, 2022). Much of the research on learner emotions has been influenced by the complex dynamic systems theory (Ranjbar et al., 2024; Wang et al., 2024). The stability of FLE has been found to depend on the time window: it is highly dynamic over short time spans linked to the topic (Boudreau et al., 2018); it is more stable over periods extending from a semester to a year and fluctuating more again over periods of several years (Dewaele & Meftah, 2023).

Previous research has overlooked the mechanism and fluctuations of enjoyment in relation to specific language skills. The existing studies have mostly focused on FLE in a broad sense. Following the same reasoning, one could postulate that reading enjoyment may have a different conceptualization and representation. First language educational research has shown that a non-significant positive relationship exists between reading enjoyment and reading achievement in primary school pupils (Smith et al., 2012). It is worth investigating this relationship in the L2 classroom in the case of older learners because reading enjoyment can foster motivation and cultivate interest in engaging in reading activities (Ma et al., 2021).

## 2.6. Theorizing the associations between the constructs

Several educational theories support the interaction between learner-external factors (in this case, L2 teacher support) and learner-internal factors (L2 enjoyment,

anxiety, and boredom) in shaping L2 reading motivation. In Deci and Ryan's (2012) self-determination theory (SDT), the need for relatedness highlights the prominence of interpersonal connections and supportive relationships in fostering intrinsic motivation and well-being. This theory posits that individuals are motivated to engage in activities which fulfill their need for relatedness. In the context of L2 classes, learners' sense of relatedness and belongingness is highly susceptible to interpersonal relations with teachers and other students (Shakki, 2022). More specifically, academic and personal support provided by L2 teachers can satisfy learners' need for relatedness by fostering positive teacher-student relationships, thereby creating a supportive learning environment which can enhance L2 learners' intrinsic motivation and engagement in reading activities. The association between the constructs can also be examined through the lens of social identity theory (SIT; Turner et al., 1987). According to this theory, an individual's feeling of belonging to different social groups contributes to their overall well-being and self-esteem. To be more precise, a higher sense of belongingness can significantly influence EFL learners' affective orientations and consequently self-esteem, which is closely associated with learner motivation in the class (Topçu & Leana-Taşçılar, 2018). Furthermore, based on relational theory (see Greenberg & Mitchell, 1983), which emphasizes that an individual's behavior is strongly influenced by their interactions with others (Moskowitz et al., 2022), the dynamics between the teacher and learners can be characterized as how the self (L2 learner) develops in relation to other selves (L2 teacher). Since this theory underscores the significance of interpersonal connections in forming one's sense of self, it is probable that L2 learners' motivation for skill development (L2 reading in this case) is influenced by affective as well as academic qualities of the L2 teacher. Additionally, social cognitive theory (SCT, Bandura, 2001) posits that behavior is influenced by reciprocal interactions among personal factors, environmental factors, and behavior itself. More specifically, there is a continuous interplay among the social environment (e.g., L2 teacher support), internal stimuli (e.g., L2 motivation), and behavior (e.g., L2 reading). Given the outlined theorization, the contributions of academic as well as personal L2 teacher support to EFL learners' reading motivation, coupled with the mediating impact of affective orientations appear to be a fruitful research path. Additionally, while the role of emotions in L2 reading has been recognized, the impact of emotions, including FLE, FLB, and FLA, on L2 reading motivation remains relatively unexplored in L2 research.

### 3. Method

#### 3.1. Research questions

The current study investigated the issues outlined above within the Iranian EFL context at the tertiary education level. In doing so, the following research questions were formulated:

RQ1: What is the relationship between L2 teacher support, learner emotions, and L2 reading motivation?

RQ2: To what extent does L2 teacher support contribute to L2 reading motivation, taking into account the mediating role of learner emotions?

#### 3.2. Participants

The research sample for the present study consisted of 302 (93 males and 209 females) EFL university students who were pursuing a degree in English language teaching (ELT) at various universities in Iran during the 2022-2023 academic year. The participants, aged between 18 and 27 years old ( $M = 21.3$ ), were from different academic levels: 16 freshmen, 89 sophomores, 74 juniors, and 123 seniors. In 4-year ELT programs of the universities, students take general English courses (e.g., advanced reading, academic writing, oral communication skills) during their first academic year, followed by academic courses (e.g., language teaching skills, research methods, approaches and methods) in the remaining years. These courses aim to firstly enhance their English language proficiency and academic skills and then provide them with a deeper understanding of English language teaching procedures.

#### 3.3. Instruments

##### 3.3.1. L2 teacher support

L2 teacher support was measured by a component of Johnson et al.'s (1985) *Classroom Life Scale*. The eight items measure student-perceived affective teacher support (4 items; e.g., "My teacher cares about my feelings") and academic teacher support (4 items; e.g., "My teacher wants me to do my best in schoolwork") on a 5-point Likert-type scale. We adapted the scale by simply adding "English reading" to "teacher" to specifically measure L2 teacher support in EFL classes. In Van Ryzin et al.'s (2009) study, the teacher support component of the scale demonstrated high reliability, with

Cronbach's alpha coefficients of .92 for the entire scale. These findings are consistent with reliability estimates obtained in more recent studies (e.g., Solhi, 2023).

### 3.3.2. L2 reading enjoyment

FLE was assessed by means of Botes et al.'s (2021) revised and validated 9-item *FLE Scale*, which measures L2 learners' enjoyment in L2 learning on a 5-point Likert scale. The participants were instructed to consider their L2 learning enjoyment experiences in English reading classes. The scale has three dimensions: personal enjoyment (3 items; e.g., "I've learned interesting things"), social enjoyment (3 items; e.g., "We form a tight group"), and teacher appreciation (3 items; e.g., "The teacher is friendly"). To more precisely measure the construct, we made minimal adjustments to the items by adding "in L2 reading class" at the end of each one. By doing so, we aimed to preserve the validity of the measure. This minor change allowed us to capture the nuances of learning enjoyment in an L2 reading environment. In their study, the teacher appreciation, personal enjoyment, and social enjoyment subscales demonstrated high to acceptable internal consistency, with Cronbach's alpha of .92, .71 and .77, respectively.

### 3.3.3. L2 reading boredom

The *L2 Reading Boredom Scale* was adapted based on the *Foreign Language Learning Boredom (FLLB) Scale* developed and validated by Li et al. (2021). The 32-item FLLB scale consists of 7 factors measuring boredom in different learning contexts on a 5-point Likert-type scale. In the current investigation, the items comprising the first dimension (i.e., foreign language learning boredom) were adapted by simply replacing "English class" with "reading class" so as to specifically measure L2 reading boredom in the class. Example items from the questionnaire include "I start yawning in reading class because I am so bored" and "My mind begins to wander in the reading class." In Li et al.'s (2021) research, the Cronbach's alpha for the entire scale was .94 and for the first dimension of the scale it was estimated as .90, indicating high reliability.

### 3.3.4. L2 classroom anxiety

L2 reading classroom anxiety was measured by means of Botes et al.'s (2022) validated 8-item *Short-form FLA Scale* on a 5-point Likert scale. The scale aims

to assess L2 domain-specific foreign language anxiety. We replaced “foreign language” with “reading” so as to more accurately measure the construct of L2 reading anxiety. Example items include “Even if I am well prepared for reading class, I feel anxious about it” and “It embarrasses me to volunteer answers in my reading classes.” In Botes et al.’s (2022) study, the scale showed acceptable internal consistency, as indicated by the values of Cronbach’s alpha ( $\alpha = .89$ ) and McDonald’s omega ( $\omega = .89$ ).

### 3.3.5. L2 reading motivation

L2 reading motivation was measured by Wang and Gan’s (2021) 25-item reading motivation questionnaire, which consists of 5 factors, namely, reading efficacy (7 items), reading enjoyment (7 items), recognition (4 items), involvement (4 items), and compliance (3 items) on a 4-point Likert scale. The sample items include “I am good at reading in English” (reading efficacy) and “I tend to get deeply engaged when I read in English” (involvement). In Wang and Gan’s (2021) study, the scale was characterized by acceptable to high internal consistency, with Cronbach’s alpha of .89, .88, .82, .82, and .73 for each dimension, respectively.

## 3.4. Data collection procedure

The online version of the questionnaires, measuring perceived L2 teacher support, L2 reading motivation, FLE, FLB, and FLA was administered to a group of EFL university students. The survey was administered online, and the language of the questionnaire was English, considering the proficiency level of the participants. The link to the online questionnaire was shared with the colleagues at various universities to provide it to their students. Additionally, we employed a snowball sampling technique, where participants were encouraged to further share the questionnaire with other ELT students in their networks. This method allowed us to efficiently reach a larger and more diverse pool of respondents. Before completing the questionnaire, they were notified that their demographic information would be kept confidential. Additionally, their consent was obtained through a consent form before proceeding with the questionnaire. The first section of the questionnaire informed participants about the purpose of the study and provided instructions on how to complete the scales. They were instructed to consider their general learner emotions and motivation in English reading classes during the second academic semester of 2022-2023.

### 3.5. Data analysis

The researchers utilized SPSS software (version 27) and AMOS (version 24) to address the research inquiries. By applying structural equation modeling (SEM) and utilizing various analytical tools, including reliability assessments, correlation analyses, and multiple linear regression, the researchers thoroughly examined the collected data. This approach enabled a comprehensive investigation into the relationships among variables and provided insights into the underlying dynamics of the phenomena under study. The combination of different statistical techniques facilitated a nuanced response to the research questions, allowing for robust interpretations and meaningful conclusions to be drawn from the analysis. The authors managed missing data by employing imputation techniques, replacing missing values with estimates derived from other data points in the dataset. Regarding normality and outliers, the approach to these issues varied based on the study's methodology and goals. The authors checked for normality using statistical tests like Shapiro-Wilk or Kolmogorov-Smirnov.

Table 1 Tests of normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	p	Statistic	df	p
Teacher support	.072	302	.200*	.984	302	.747
Reading enjoyment	.064	302	.200*	.982	302	.654
Reading boredom	.081	302	.200*	.973	302	.571
Classroom anxiety	.069	302	.200*	.977	302	.649
Reading motivation	.073	302	.200*	.983	302	.714

Note. \* = This is a lower bound of the true significance. a = Lilliefors significance correction

Table 1 presents the results of Kolmogorov-Smirnov and Shapiro-Wilk tests of normality for the five variables included in the study. Each test provides the statistic value, degrees of freedom (*df*), and significance (*p*) value for each variable. Kolmogorov-Smirnov test for all variables yielded the significance value of .200, which indicates that the data does not significantly deviate from normality. The *p* values of Shapiro-Wilk test for each variable ranged from .571 to .747, all above .05. This also suggests that none of the variables significantly deviated from normality. Both Kolmogorov-Smirnov and Shapiro-Wilk tests showed that all variables met the assumption of normality as the *p* values are greater than .05. Based on these results, it can be concluded that the data for all five variables (i.e., teacher support, reading enjoyment, reading boredom, classroom anxiety, and reading motivation) followed a normal distribution.

#### 4. Findings

In the first step, to determine the reliability of the questionnaires, their convergent and discriminant validity, and to answer the first research question, the researchers conducted a confirmatory factor analysis (CFA). The results of this analysis are presented in Table 2, Table 3, and Figure 1.

Table 2 Assessment of goodness of fit through CFA

Criteria		Threshold			Evaluation
		Terrible	Acceptable	Excellent	
CMIN	5239.434				
DF	1581				
CMIN/DF	3.314	> 5	> 3	> 1	Acceptable
RMSEA	.061	> .08	< .08	< .06	Acceptable
IFI	.931	< .90	> .90	> .95	Acceptable
CFI	.952	< .90	> .90	> .95	Acceptable
PNFI	.637	< .50	> .50		Acceptable
TLI	.948	> .90	> .90	> .95	Acceptable

*Note.* CMIN = chi-square minimum, DF = degrees of freedom, CMIN/DF = chi-square minimum/degree of freedom, RMSEA = root mean square error of approximation, IFI = incremental fit index, CFI = comparative fit index, PNFI = parsimony normed fit index, TLI = Tucker-Lewis index.

The data presented in Table 2 indicate that the model demonstrates a good fit, supported by several fit indices that fall within generally acceptable thresholds. The CMIN/DF value of 3.314 was within an acceptable range for model fit, suggesting that the chi-square statistic relative to the degrees of freedom is reasonable, although values closer to 2 are often ideal for simpler models. The incremental fit index (IFI) of .931 was above the recommended threshold of .90, showing that the model compared well with a null model and thus fit the data well. Additionally, the comparative fit index (CFI) of .952 exceeds the commonly accepted threshold of .95, indicating a good fit by comparing the fit of the target model to an independent baseline model. The parsimonious normed fit index (PNFI) of .637 reflects a balance between model complexity and fit, suggesting that the model is neither too complex nor overly simplified. Furthermore, the Tucker-Lewis index (TLI) of .948 is close to the optimal range of .95, demonstrating good model fit while penalizing complexity. Finally, the root mean square error of approximation (RMSEA) of .061 is within the commonly accepted range of .05 to .08, signifying a reasonable approximation error and overall model fit (see Cheung & Rensvold, 2002).

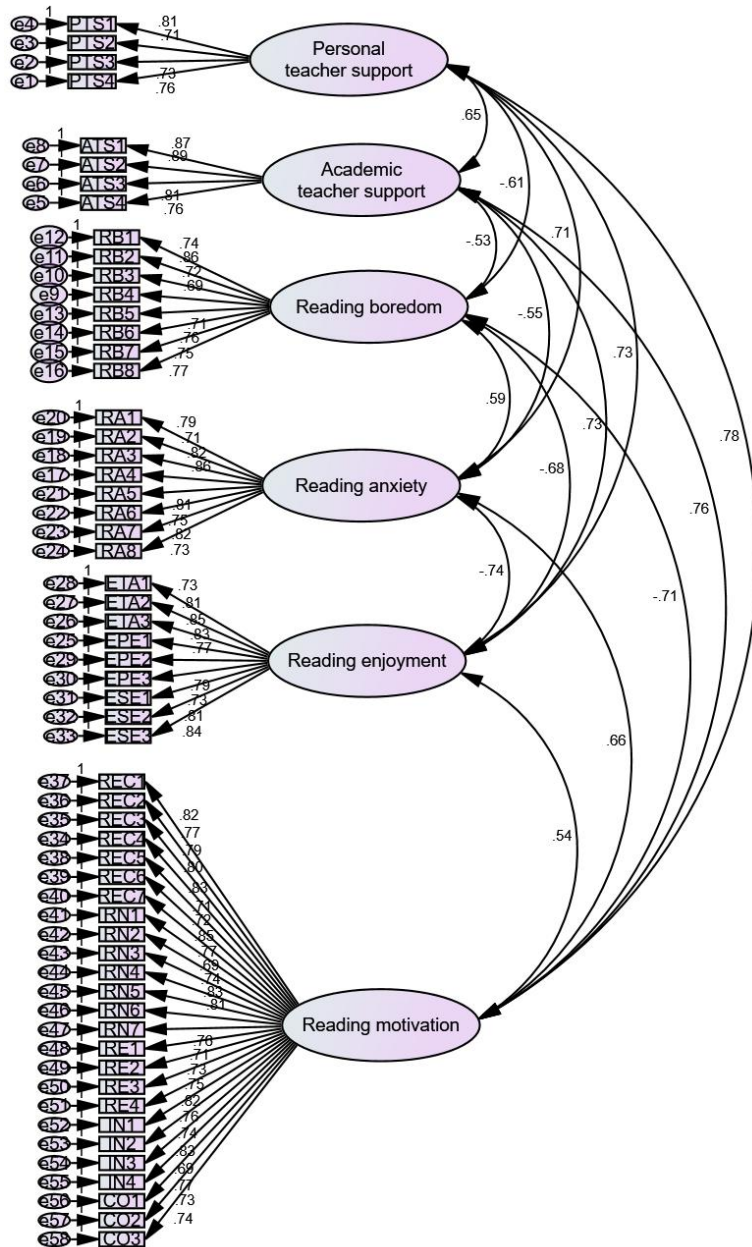


Figure 1 The final CFA model



Table 3 Composite reliability and discriminant validity of the variables

	CR	AVE	MSV	MaxR (H)	Personal teacher support	Academic teacher support	Reading boredom	Reading anxiety	Reading enjoyment	Reading motivation
Personal teacher support	.841	.804	.837	.846	.897					
Academic teacher support	.911	.734	.837	.919	.815***	.858				
Reading boredom	.947	.690	.403	.952	-.635***	-.600***	.831			
Reading anxiety	.750	.513	.317	.909	-.450***	-.438***	.485***	.716		
Reading enjoyment	.962	.740	.515	.967	.566***	.409***	-.472***	-.433***	.861	
Reading motivation	.963	.532	.515	.970	.512***	.591***	-.613***	-.563***	.717**	.730

Note. CR = composite reliability, AVE = average variance extracted, MSV = maximum shared variance, MaxR(H) = maximal reliability.

In Table 3, the composite reliability values provide statistical evidence for the reliability of each construct, confirming that the measurement model has strong internal consistency, with all values meeting the acceptable threshold (typically > .70). Figure 1 shows how the final CFA model fits with the data, demonstrating the relationships that support the construct reliability. In other words, the results presented in Table 3 demonstrate that the composite reliability values for all the questionnaires meet the requirement of construct reliability. All variables have a CR above .70, indicating good internal consistency. The highest CR is for reading motivation (.963), and the lowest is for Reading Anxiety (.750). Moreover, all subscales exhibit AVE values higher than .50, confirming the convergent and discriminant validity of the model. Furthermore, there was a significantly strong and positive correlation between personal and academic teacher support and reading motivation,  $r(300) = .51, p < .001$ , and  $r(300) = .59, p < .001$ , respectively. Reading boredom and anxiety were found to be strongly, negatively correlated with teacher support;  $r(300) = -.61, p < .001$ , and  $r(300) = -.56, p < .001$ , respectively. The variables of reading enjoyment and reading motivation were found to be strongly correlated,  $r(300) = .71, p < .01$ .

To answer the second research question, regression analysis was conducted in AMOS (version 24). The results of this analysis are presented Figure 2, Figure 3, and Table 4.

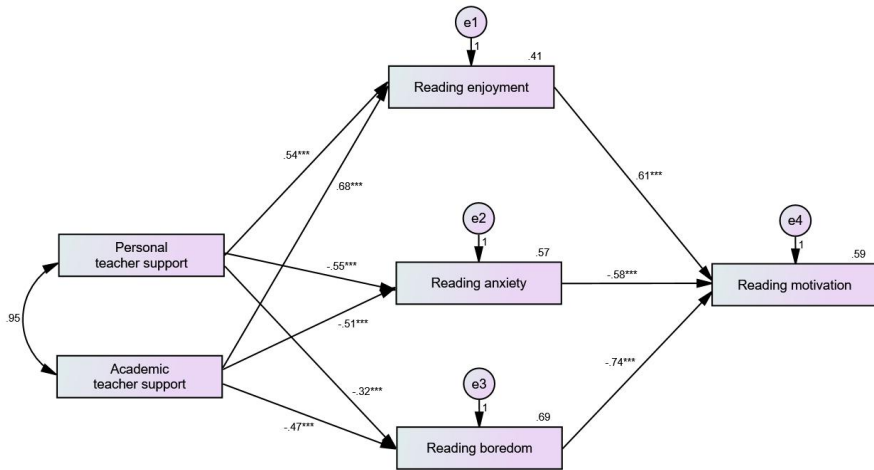


Figure 2 The final measurement model

Figure 2 depicts the final measurement model illustrating relationships among various variables related to reading experiences. Reading enjoyment was influenced positively by personal teacher support ( $.54^{***}$ ) and negatively by reading anxiety ( $-.68^{***}$ ). It indicates that higher teacher support correlates with greater enjoyment in reading, while increased anxiety negatively impacts enjoyment. Reading anxiety was positively influenced by personal teacher support ( $.55^{***}$ ) and academic teacher support ( $.51^{***}$ ) and negatively correlated with reading motivation ( $-.58^{***}$ ). This suggests that greater teacher support can reduce anxiety levels, leading to increased reading motivation. Reading boredom was positively influenced by academic teacher support ( $.32^{***}$ ), with a significant negative impact on reading motivation ( $-.74^{***}$ ). High levels of boredom decrease motivation for reading, indicating that engagement strategies are important in mitigating boredom. Reading motivation was affected positively by reading enjoyment ( $.61^{***}$ ) and negatively by both reading anxiety ( $-.58^{***}$ ) and reading boredom ( $-.74^{***}$ ). This highlights the interconnection where increased enjoyment and reduced anxiety and boredom enhance motivation to read. The model suggests that teacher support plays a critical role in shaping students' reading experiences. Both personal and academic support are vital in reducing reading anxiety and boredom, thus promoting reading enjoyment and motivation. Positive experiences (like enjoyment and support) are linked to motivational outcomes, while negative experiences (like anxiety and boredom) have detrimental effects.

To thoroughly evaluate the indirect effects presented in this model, it is essential to consult Figure 3, which visually illustrates the relationships and pathways among the variables involved. Additionally, Table 4 provides a detailed

summary of the statistical results, including coefficients and significance levels, which are crucial for understanding how the indirect effects are quantified and interpreted. Together, these resources enhance the clarity and comprehension of the model's dynamics.

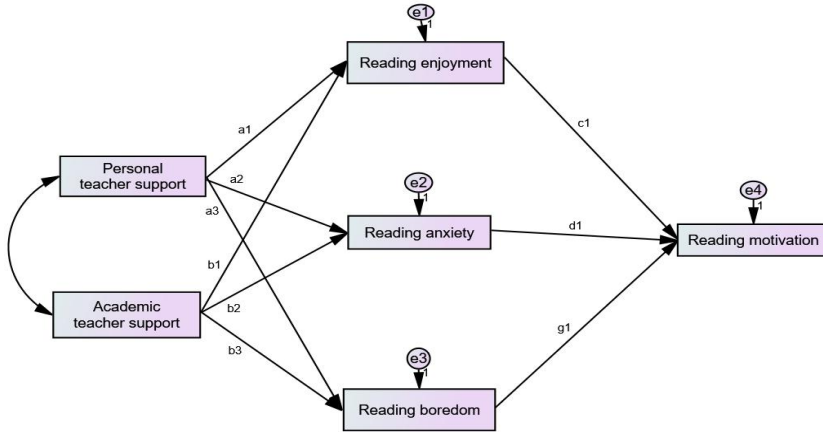


Figure 3 User-defined estimates

Figure 3 represents a conceptual model illustrating the relationships between various factors influencing reading experiences. The model suggests a complex interplay where enhanced teacher support may mitigate anxiety, thereby fostering greater enjoyment and motivation in reading, while boredom and anxiety are significant barriers to motivation. This model emphasizes the importance of supportive educational environments in influencing students' reading attitudes and outcomes.

Table 4 Indirect effects of teacher support on reading motivation: Estimates, confidence intervals, and significance levels

Parameter	Estimate	Lower	Upper	p
Ind1 = $a1 * c1$ Academic teacher support to reading enjoyment to reading motivation	.561	.028	.072	.001
Ind2 = $a2 * d1$ Academic teacher support to reading anxiety to reading motivation	-.843	-.135	-.035	.002
Ind3 = $a3 * g1$ Academic teacher support to reading boredom to reading motivation	-.482	-.212	-.093	.001
Ind4 = $b1 * c1$ Personal teacher support to reading enjoyment to reading motivation	.803	.041	.050	.002
Ind5 = $b2 * d1$ Personal teacher support to reading anxiety to reading motivation	-.424	-.092	-.200	.001
Ind6 = $b3 * g1$ Personal teacher support to reading boredom to reading motivation	-.626	-.254	-.410	.001

Note. Ind1 = reading enjoyment to motivation, Ind2 = reading anxiety to motivation, Ind3 = reading boredom to motivation, Ind4 = reading enjoyment to motivation, Ind5 = reading anxiety to motivation, Ind6 = reading boredom to motivation

Table 4 provides a comprehensive analysis of the indirect effects of academic and personal teacher support on students' reading motivation, using estimates, confidence intervals, and significance levels to describe these relationships. A positive estimate of .561 indicates that academic support aimed at fostering enjoyment in reading significantly increases students' motivation to engage in reading activities. This effect is statistically significant ( $p < .001$ ), suggesting that when teachers create an enjoyable learning environment, students become more motivated. Conversely, an estimate of -.843 reflects a strong negative effect, where academic support directed towards alleviating reading anxiety is actually associated with a decrease in motivation ( $p < .002$ ). This suggests that while anxiety reduction is critical, if not handled carefully, it may inadvertently dampen students' willingness to engage with reading. Similarly, an estimate of -.482 points to a negative correlation between academic support that addresses boredom and reading motivation ( $p < .001$ ), suggesting that while reducing boredom is necessary, excessive focus on this issue may demotivate students. On the personal support front, a very strong positive estimate of .803 indicates that when personal teacher support enhances enjoyment in reading, it significantly boosts students' motivation ( $p < .002$ ). However, personal support addressing anxiety and boredom shows negative estimates, that is, -.424 and -.626, respectively, implying that personal interventions aimed at mitigating these challenges might reduce overall reading motivation ( $p < .001$ ). This pattern indicates that while teacher support is invaluable in fostering reading enjoyment, excessive focus on addressing anxiety and boredom may have unintended adverse effects on students' engagement with reading.

## 5. Discussion

The purpose of the present study was twofold. We first sought to examine the association between L2 teachers' personal and academic support, learner emotions, and L2 reading motivation. Secondly, an attempt was made to identify the extent to which L2 teacher support contributes to L2 reading motivation, with the mediating role of FLB, FLA, and FLE. In response to the first research question, the results indicated a significantly strong and positive relationship between personal and academic teacher support and L2 reading motivation. Additionally, FLB and FLA exhibited strong negative correlations with personal and academic teacher support. Furthermore, L2 reading enjoyment displayed a strong positive association with reading motivation. The results are consistent with Lee's (2018) findings, where L2 teacher support exerted a major influence on L2 reading motivation. Additionally, building on Deci and Ryan's (2012) SDT

and the psychological need for relatedness in fostering motivational orientations, the academic and personal support provided by L2 teachers can significantly impact learners' sense of relatedness in positive L2 classroom environment (Yüksel et al., 2024), thus boosting motivation in L2 reading.

In alignment with the finding on the close association between L2 teacher support and FLE, a constructive teacher-student relationship can positively contribute to L2 students' emotional dispositions (Moskowitz et al., 2022). Specifically, the positive and conducive relationship between L2 teachers and learners fostered by teacher support can not only improve the well-being of both parties but also can significantly bolster L2 reading motivation among students. The findings can also be discussed in light of the relational theory (see Greenberg & Mitchell, 1983), which highlights the influence of social interactions on shaping individuals' behavior. Specifically, the findings suggest that the emotional and motivational impact of L2 teachers can shape EFL learners' emotional experiences and motivation in L2 learning. Given that learners develop their sense of self through these relationships, teacher support – both emotionally and academically – can play a critical role in fostering a positive learning environment, which can ultimately enhance EFL learners' motivation to improve specific L2 skills, such as reading.

Results also indicated that FLA adversely influences L2 reading motivation. The negative impact of anxiety on reading skills is in line with Zaccoletti et al.'s (2020) study, where anxiety adversely predicted learners' performance in reading tasks. In their study, the perceived level of control over reading comprehension had a negative predictive effect on anxiety, which in turn exhibited an adverse impact on students' reading performance. For example, as mentioned above, EFL learners' difficulties in word decoding might result in limited comprehension of the text, and this could consequently impact anxiety during L2 reading (Saito et al., 1999). More specifically, the lack of control over comprehension in L2 reading can exacerbate anxiety levels, potentially hindering effective engagement with the reading materials. This interplay between perceived control, anxiety, and performance highlights the intricate dynamics at play in L2 reading motivation. Previous research has also indicated that academic and affective support provided by teachers can alleviate FLA (Shakki, 2022). In response to the first research question, the study also indicated that FLB adversely influences EFL learners' motivation in L2 reading. The close association between these two negative emotions has been confirmed in L2 research (e.g., Dewaele & Li, 2021). Consistent with the results of the current study regarding the impact of FLB on reading motivation, Shehzad et al.'s (2020) and Li's (2022) studies have underscored the close association between FLB and reading proficiency, as well as the pivotal role of L2 teachers. In Shehzad et al.'s (2020) study involving university-level EFL learners, it was observed that L2 reading boredom negatively affected the reading

endeavors of L2 learners. In Li's (2022) research, L2 learners reported heightened levels of boredom when their English teachers allocated an extended duration to reading tasks. These insights highlight how L2 teachers influence learners' reading motivation and levels of FLB.

To address the second research question, we explored how emotions mediate the relationship between L2 teacher support and reading motivation. The findings echo Zhao and Yang's (2022) research, where FLB mediated the relationship between perceived teacher support and academic engagement. Indeed, the major impact of FLB on the relationship between perceived L2 teacher support and L2 motivation as well as academic engagement highlights the critical role that negative emotions play in mediating learner-teacher interactions. This suggests that negative emotions such as FLB can potentially weaken the positive effects of L2 teacher support, diminishing learners' motivation and engagement in L2 learning. More specifically, EFL learners' L2 reading motivation can be further enhanced when teacher support fosters an enjoyable learning environment. By providing both academic and emotional support, L2 teachers can help sustain the flow of motivation, encouraging learners to remain committed to their L2 reading goals.

## 6. Implications

Based on the findings, several pedagogical implications can be proposed. Firstly, considering the significant impact of L2 teacher support on EFL learners' reading motivation, L2 teachers can foster their reading self-efficacy through various strategies such as providing explicit instruction on reading strategies, scaffolding reading materials to match their proficiency levels, integrating engaging reading materials, and creating a supportive L2 environment which fosters a growth mindset towards reading abilities. For example, L2 teachers can incorporate reading fluency exercises such as "rate build-up reading" (see Anderson, 2014, p. 180) so as to help L2 learners gradually increase their reading speed and comprehension over time. Indeed, engaging in activities aimed at improving reading fluency can significantly impact L2 learners' reading motivation. Giving a sense of self-efficacy and autonomy are essential components for fostering L2 reading motivation (Wang & Gan, 2021). By gradually increasing their reading speed and comprehension, L2 learners may feel a sense of accomplishment and self-efficacy, which can increase their motivation to engage with reading materials.

Secondly, positive affective orientations such as enjoyment are essential requirements for effective L2 learning materials (Tomlinson, 2012). Through integrating enjoyable reading materials which can affectively engage learners, L2

teachers can enhance learners' intrinsic motivation to read, stimulate their curiosity and involvement, and build a positive attitude towards L2 reading. Additionally, considering the significance of commitment to task completion in L2 reading motivation (Wang & Gan, 2021), it appears essential to provide a syllabus with a clear emphasis on tracking student achievement and progress. Moreover, incorporating reflective tasks into L2 reading courses can further enhance students' awareness of their reading performances and foster a sense of control and responsibility for their learning outcomes. This approach can not only promote engagement and motivation but also facilitate continuous self-directed learning and improvement in the L2 reading process. Indeed, L2 teachers' perceived attention to learners' progress and efforts can act as an extrinsic motivator and further enhance their sense of accomplishment in L2 reading tasks.

Thirdly, L2 teachers can consider offering face-to-face or virtual office hours where learners can freely connect with the teacher for informal conversations, seek clarification on reading materials, and emotionally receive support regarding their L2 reading experiences. Such socially and personally supportive environments provided by L2 teachers can reduce their students' anxiety and foster a more conducive atmosphere for L2 reading comprehension and engagement. Indeed, such supportive environments can not only aid L2 learners in developing effective cognitive strategies to cope with boredom (Pawlak et al., 2021), but also foster more engaging and productive L2 reading behaviors in learners (Wang & Gan, 2021). Language teachers are thus recommended to provide strong academic and personal support to their students in order to increase their classroom engagement and to ward off their boredom (Pawlak et al., 2021).

Fourthly, consistent with the results of the current study, which highlights the vital role of L2 teacher support in L2 reading classes, it becomes evident that fostering a supportive teaching environment is not only essential for addressing FLA but also holds significant promise for enhancing students' overall L2 reading experience in the class. More specifically, by selecting suitable reading materials and implementing strategies that empower students to feel more in control of their comprehension, L2 teachers can mitigate EFL learners' FLA levels and create an environment conducive to reading skill development. Indeed, L2 teacher support extends beyond mere academic instruction, reaching into the realm of emotional as well as motivational orientations, which are essential to the success of learners in L2 reading.

## 7. Limitations and suggestions for future research

The present study has some limitations. Firstly, only questionnaires were utilized to collect data. Through triangulating additional qualitative methods, such as interviews

and observations, future research could offer a more nuanced understanding of EFL learners' reading motivation and the role of teacher support in fostering it. These methods would allow researchers to explore how L2 teacher support influences learners' emotional engagement with reading tasks, thus providing deeper insights into the factors that impede or contribute to L2 reading motivation. Undoubtedly, by considering learners' personal reflections and classroom dynamics, future studies could delve more deeply into the complex interplay between teacher support and individual motivation in L2 reading development. Secondly, research in different countries on different target languages is needed to find out whether the patterns that emerged in the present study exist in different educational settings. Finally, more research is needed on the associations between teacher support and various motivational orientations related to specific language skills. Another potential limitation of the present study is the high correlation observed between personal teacher support and academic teacher support. Although we conducted VIF and tolerance tests and found no issues with multicollinearity, the high correlation between these variables may raise concerns about discriminant validity (see Al-Hoorie et al., 2023). Future research should consider this limitation and explore additional methods to ensure the discriminant validity of these two facets of L2 teacher support.

## 8. Conclusion

The present study explored the association between affective and academic teacher support and EFL learners' reading motivation, along with the mediating role of FLB, FLA, and FLE. The findings highlight a strong and positive relationship between both personal and academic teacher support and reading motivation, underscoring the significance of these forms of support in an educational context. While FLB and FLA exhibited strong negative correlations with the two facets of teacher support, L2 reading enjoyment displayed a strong association with reading motivation. This study highlights the pivotal role of L2 teacher support in shaping EFL learners' reading motivation. Moreover, the negative associations between L2 reading boredom and anxiety and L2 teacher support emphasize the importance of supportive teaching environments to keep negative emotions at bay and boost positive emotions and motivation. A supportive classroom environment is like a garden where L2 learners' reading motivation can grow with sufficient sunshine, water, and tender care.



## References

- Affuso, G., Zannone, A., Esposito, C., Pannone, M., Miranda, M. C., De Angelis, G., . . . & Bacchini, D. (2023). The effects of teacher support, parental monitoring, motivation and self-efficacy on academic performance over time. *European Journal of Psychology of Education, 38*(1), 1-23. <https://doi.org/10.1007/s10212-021-00594-6>
- Al-Hoorie, A. H., Hiver, P., & In'nami, Y. (2023). The validation crisis in the L2 motivational self-system tradition. *Studies in Second Language Acquisition, 46*(2), 307-329. <https://doi.org/10.1017/S0272263123000487>
- Anderson, N. J. (2014). Developing engaged second language readers. In M. Celce-Murcia, D. M. Brinton, & M. A. Snow (Eds.) *Teaching English as a second or foreign language* (pp. 170-188). National Geographic Learning.
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology, 52*(1), 1-26.
- Bensalem, E., Derakhshan, A., Fahad Hamed Alenazi, F., H., Thompson, A., S., & Harizi, R. (2024). Modeling the contribution of grit, enjoyment, and boredom to predict English as a foreign language students' willingness to communicate in a blended learning environment. *Perceptual and Motor Skills*. <https://doi.org/10.1177/00315125241289192>
- Botes, E., Dewaele, J.-M., & Greiff, S. (2021). The development and validation of the short form of the foreign language enjoyment scale. *Modern Language Journal, 105*(4), 858-876. <https://doi.org/10.1111/modl.12741>
- Botes, E., Dewaele, J.-M., & Greiff, S. (2022). Taking stock: A meta-analysis of the effects of Foreign Language Enjoyment. *Studies in Second Language Learning and Teaching, 12*(2), 205-232. <https://doi.org/10.14746/sslIt.2022.12.2.3>
- Boudreau, C., P. D. MacIntyre, & Dewaele, J.-M. (2018). Enjoyment and anxiety in second language communication: An idiodynamic approach. *Studies in Second Language Learning and Teaching 8*(1), 149-170. <https://doi.org/10.14746/sslIt.2018.8.1.7>
- Chan, K., Yeung, P. S., & Chung, K. K. H. (2024). The effects of foreign language anxiety on English word reading among Chinese students at risk of English learning difficulties. *Reading and Writing, 1*-19. <https://doi.org/10.1007/s11145-024-10513-y>
- Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling, 9*, 233-255. [https://doi.org/10.1207/s15328007sem0902\\_5](https://doi.org/10.1207/s15328007sem0902_5)
- Danesh, J., & Shahnazari, M. (2020). A structural relationship model for resilience, L2 learning motivation, and L2 proficiency at different proficiency levels. *Learning and Motivation, 72*, 1-16. <https://doi.org/10.1016/j.lmot.2020.101636>

- Deci, E. L., & Ryan, R. M. (2012). Self-determination theory. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (pp. 416-436). Sage. <https://doi.org/10.4135/9781446249215.n21>
- Derakhshan, A., & Azari Noughabi, M. (2024). A self-determination perspective on the relationships between EFL learners' foreign language peace of mind, foreign language enjoyment, psychological capital, and academic engagement. *Learning and Motivation*. <https://doi.org/10.1016/j.lmot.2024.102025>
- Derakhshan, A., & Fathi, J. (2024). Longitudinal exploration of interconnectedness through a cross-lagged panel design: Enjoyment, anxiety, L2 willingness to communicate, and L2 grit in English language learning. *Journal of Multilingual and Multicultural Development*. <https://doi.org/10.1080/01434632.2024.2393705>
- Derakhshan, A., Fathi, J., Pawlak, M., & Kruk, M. (2022). Classroom social climate, growth language mindset, and student engagement: The mediating role of boredom in learning English as a foreign language. *Journal of Multilingual and Multicultural Development*. <https://doi.org/10.1080/01434632.2022.2099407>
- Derakhshan, A., Kruk, M., Mehdizadeh, M., & Pawlak, M. (2021a). Activity-induced boredom in online EFL classes. *ELT Journal*, 76(1), 58-68. <https://doi.org/10.1093/elt/ccab072>
- Derakhshan, A., Kruk, M., Mehdizadeh, M., & Pawlak, M. (2021b). Boredom in online classes in the Iranian EFL context: Sources and solutions. *System*, 101, 102556. <https://doi.org/10.1016/j.system.2021.102556>
- Derakhshan, A., & Shakki, F. (2024). How innovative are innovative research approaches in the psychology of the language teachers and learners: A state-of-the-art review. *Language Related Research*, 15(5), 1-34.
- Derakhshan, A., Solhi, M., & Azari Noughabi, M. (2023). An investigation into the association between student-perceived affective teacher variables and students' L2-grit. *Journal of Multilingual and Multicultural Development*. <https://doi.org/10.1080/01434632.2023.2212644>
- Dewaele, J.-M., Botes, E., & Greiff, S. (2022). Sources and effects of foreign language enjoyment, anxiety and boredom: A structural equation modelling approach. *Studies in Second Language Acquisition*. <https://doi.org/10.1017/S0272263122000328>
- Dewaele, J. M., & Li, C. (2021). Teacher enthusiasm and students' social-behavioral learning engagement: The mediating role of student enjoyment and boredom in Chinese EFL classes. *Language Teaching Research*, 25(6), 922-945.
- Dewaele, J. M., & MacIntyre, P. D. (2014). The two faces of Janus? Anxiety and enjoyment in the foreign language classroom. *Studies in Second Language Learning and Teaching*, 4(2), 237-274. <https://doi.org/10.14746/ssl1t.2014.4.2.5>
- Dewaele, J. M., & MacIntyre, P. D. (2016). Foreign language enjoyment and foreign language classroom anxiety. The right and left feet of FL learning? In

- P. MacIntyre, T. Gregersen, & S. Mercer (Eds.), *Positive psychology in SLA* (pp. 215-236). Multilingual Matters.
- Dewaele, J. M., & Meftah, R. (2023). The trajectory of English foreign learners' emotions and motivation from the start to the end of their learning journey. *Journal of the European Second Language Association*, 7(1), 16-30. <https://doi.org/10.22599/jesla.94>
- Dewaele, J.-M., & Saito, K. (2024). Are enjoyment, anxiety and attitudes/motivation different in English foreign language classes compared to LOTE classes?. *Studies in Second Language Learning and Teaching*, 14(1), 171-191. <https://doi.org/10.14746/ssllt.42376>
- Dhanapala, K. S., & Hirakawa, Y. (2016). L2 reading motivation among Sri Lankan university students. *Reading Psychology*, 37(2). <https://doi.org/10.1080/02702711.2015.1025163>
- Dörnyei, Z. (2014). Motivation in second language learning. In M. Celce Murcia, D. M. Brinton, & M. A. Snow (Eds.), *Teaching English as a second or foreign language* (pp. 518-531). Heinle Cengage Learning.
- Ghaith, G. M. (2020). Foreign language reading anxiety and metacognitive strategies in undergraduates' reading comprehension. *Issues in Educational Research*, 30(4), 1310-1328.
- Graham, S., Woore, R., Porter, A., Courtney, L., & Savory, C. (2020). Navigating the challenges of L2 reading: Self-efficacy, self-regulatory reading strategies, and learner profiles. *Modern Language Journal*, 104(4), 693-714.
- Greenberg, J. R., & Mitchell, S. A. (1983). *Object relations in psychoanalytic theory*. Harvard University Press.
- Guthrie, J. T., Van Meter, P., McCann, A. D., Wigfield, A., Bennett, L., Poundstone, C. C., Rice, M. E., Faibisch, F. M., Hunt, B., & Mitchell, A. M. (1996). Growth of literacy engagement: Changes in motivations and strategies during concept-oriented reading instruction. *Reading Research Quarterly*, 31(3), 306-332. <https://doi.org/10.1598/rrq.31.3.5>
- Horwitz, E. (2001). Language anxiety and achievement. *Annual Review of Applied Linguistics*, 21, 112-126.
- Johnson, D. W., Johnson, R. T., Buckman, L. A., & Richards, P. S. (1985). The effect of prolonged implementation of cooperative learning on social support within the classroom. *Journal of Psychology*, 119, 405-411.
- Khajavy, G. H., Pourtahmasb, F., & Li, C. (2022). Examining the domain-specificity of language mindset: A case of L2 reading comprehension. *Innovation in Language Learning and Teaching*, 16(3), 208-220. <https://doi.org/10.1080/17501229.2021.1956936>

- Kruk, M. (2016). Variations in motivation, anxiety and boredom in learning English in Second Life. *The EuroCALL Review*, 24(1), 25-39. <https://doi.org/10.4995/eurocall.2016.5693>
- Kruk, M. (2021). Investigating the experience of boredom during reading sessions in the foreign language classroom. *Journal of Language and Education*, 7(3), 89-103. <https://doi.org/10.17323/jle.2021.12339>
- Kruk, M. (2022). Motivational dynamics in learning English in Second Life. *ELT Journal*, 76(4), 465-475.
- Kruk, M., & Pawlak, M. (2022). *Understanding emotions in English language learning in virtual worlds*. Routledge.
- Kruk, M., Pawlak, M., & Zawodniak, J. (2021). Another look at boredom in language instruction: The role of the predictable and the unexpected. *Studies in Second Language Learning and Teaching*, 11(1), 15-40. <https://doi.org/10.14746/sslit.2021.11.1.2>
- Lee, K. W. (2018). *Reading motivation in Chinese and English in Hong Kong secondary schools' students: Influence of schools and demographic factors* [Unpublished doctoral dissertation]. The University of Hong Kong.
- Lee, T. S., Gardner, D., & Lau, K. (2020). The effects of L2 motivational strategies: within and beyond the L2 classroom. *Innovation in Language Learning and Teaching*, 14(5), 451-465. <https://doi.org/10.1080/17501229.2019.1620240>
- Li, C. (2021). A control-value theory approach to boredom in English classes among university students in China. *Modern Language Journal*, 105, 317-334. <https://doi.org/10.1111/modl.12693>
- Li, C. & Dewaele, J. M. (2024). Understanding, measuring, and differentiating task enjoyment from foreign language enjoyment. In S. Li (Eds.), *Individual differences in task-based language learning and teaching* (pp. 84-110). John Benjamins.
- Li, C., Dewaele, J. M., & Hu, Y. (2021). Foreign language learning boredom: Conceptualization and measurement. *Applied Linguistics Review*, 14(2), 223-249. <https://doi.org/10.1515/applirev-2020-0124>
- Li, C., Jiang G., & Dewaele J. M. (2018). Understanding Chinese high school students' foreign language enjoyment: Validation of the Chinese version of the foreign language enjoyment scale. *System*, 76, 183-196. <https://doi.org/10.1016/j.system.2018.06.004>
- Li, C., Wei, L., & Lu, X. (2023). Contributions of foreign language writing emotions to writing achievement. *System*, 116, 103074.
- Li, R. (2022). Foreign language reading anxiety and its correlates: A meta-analysis. *Reading and Writing*, 35(4), 995-1018. <https://doi.org/10.1007/s11145-021-10213-x>
- Liu, H., Li, X., & Yan, Y. (2023). Demystifying the predictive role of students' perceived foreign language teacher support in foreign language anxiety: The

- mediation of L2 grit. *Journal of Multilingual and Multicultural Development*. <https://doi.org/10.1080/01434632.2023.2223171>
- Lu, Z., & Liu, M. (2015). An investigation of Chinese university EFL learner's foreign language reading anxiety, reading strategy use and reading comprehension performance. *Studies in Second Language Learning and Teaching*, 5(1), 65-85. <https://doi.org/10.14746/ssllt.2015.5.1.4>
- Luan, L., Hong, J. C., Cao, M., Dong, Y., & Hou, X. (2020). Exploring the role of online EFL learners' perceived social support in their learning engagement: A structural equation model. *Interactive Learning Environments*, 31(3), 1703-1714. <https://doi.org/10.1080/10494820.2020.1855211>
- Ma, L., Luo, H., & Xiao, L. (2021). Perceived teacher support, self-concept, enjoyment and achievement in reading: A multilevel mediation model based on PISA 2018. *Learning and Individual Differences*, 85. <https://doi.org/10.1016/j.lindif.2020.101947>
- Moskowitz, S., Dewaele, J. M., & Resnik, P. (2022). Beyond the boundaries of the self: Applying relational theory towards an understanding of the teacher-student relationship as a driver of motivation in foreign language learning. *Journal for the Psychology of Language Learning*, 4(2), 1-17. <https://doi.org/10.52598/jpll/4/2/5>
- Pawlak, M., Derakhshan, A., Mehdizadeh, M., & Kruk, M. (2021). Boredom in online English language classes: Mediating variables and coping strategies. *Language Teaching Research*. <https://doi.org/10.1177/13621688211064944>
- Pawlak, M., Kruk, M., Zawodniak, J., & Pasikowski, S. (2022). Examining the underlying structure of after-class boredom experienced by English majors. *System*, 106, 102769.
- Pawlak, M., Solhi, M., Elahi Shirvan, M., Kruk, M., & Taherian, T. (2023). Revisiting after-class boredom via exploratory structural equation modeling. *International Review of Applied Linguistics in Language Teaching*, 61(3), 1-25. <https://doi.org/10.1515/iral-2022-0151>
- Pawlak, M., Zarrinabadi, N., & Kruk, M. (2022). Positive and negative emotions, L2 grit and perceived competence as predictors of L2 motivated behavior. *Journal of Multilingual and Multicultural Development*. <https://doi.org/10.1080/01434632.2022.2091579>
- Pawlak, M., Zawodniak, J., & Kruk, M. (2020). *Boredom in the foreign language classroom: A micro-perspective*. Springer Nature.
- Pourgharib, B., & Shakki, F. (2024). The interplay between English teachers' rapport and immediacy and the students' academic motivation. *Learning and Motivation*, 87, 1-11. <https://doi.org/10.1016/j.lmot.2024.101991>
- Ranjbar, M., Hassanzadeh, M., & Roghanian, A. (2024). Unveiling the complexity of L2 learners' emotions and emotion regulation: A retrodictive qualitative

- modeling study. *International Journal of Applied Linguistics*. <https://doi.org/10.1111/ijal.12606>
- Ro, E. (2018). Understanding reading motivation from EAP students' categorical work in a focus group. *TESOL Quarterly*, 52(4), 772-797. <https://doi.org/10.1002/tesq.426>
- Saito, Y., Garza, T. J., & Horwitz, E. K. (1999). Foreign language reading anxiety. *Modern Language Journal*, 83(2), 202-218. <https://doi.org/10.1111/0026-7902.00016>
- Shakki, F. (2022). Iranian EFL students' L2 engagement: The impact of teacher support and teacher-student rapport. *Language Related Research*, 13(3), 175-198. <https://doi.org/10.52547/LRR.13.3.8>
- Shakki, F. (2023). Investigating the relationship between EFL learners' engagement and their achievement emotions. *Porta Linguarum: An International Journal of Foreign Language Teaching and Learning*, 40(2), 275-294. <https://doi.org/10.30827/portalin.vi40.27338>
- Shehzad, M. W., Ahmed, R., Razzaq, S., Akhtar, A., & Hasan, M. K. (2020). Do reading boredom and reading boredom coping strategies predict reading comprehension performance? An empirical investigation of Saudi EFL learners. *Indonesian Journal of Applied Linguistics*, 10(2), 447-459. <https://doi.org/10.17509/ijal.v10i2.28616>
- Smith, J. K., Smith, L. F., Gilmore, A., & Jameson, M. (2012). Students' self-perception of reading ability, enjoyment of reading and reading achievement. *Learning and Individual Differences*, 22(2), 202-206.
- Solhi, M. (2023). Do L2 teacher support and peer support predict L2 speaking motivation in online classes? *The Asia-Pacific Education Researcher*. <https://doi.org/10.1007/s40299-023-00767-5>
- Solhi, M. (2024). The impact of EFL learners' negative emotional orientations on (un)willingness to communicate in in-person and online L2 learning contexts. *Journal of Psycholinguistic Research*, 53(2), 1-25. <https://doi.org/10.1007/s10936-024-10071-y>
- Solhi, M., Derakhshan, A., & Pawlak, M., & Ünsal, B. (2024). Exploring the interplay between EFL learners' L2 writing boredom, writing motivation, and boredom coping strategies. *Language Teaching Research*. <https://doi.org/10.1177/13621688241239178>
- Solhi, M., Derakhshan, A., & Ünsal, B. (2023). Associations between EFL students' L2 grit, boredom coping strategies, and emotion regulation strategies: A structural equation modeling approach. *Journal of Multilingual and Multicultural Development*. <https://doi.org/10.1080/01434632.2023.2175834>

- Solhi, M., Elahi Shirvan, M., & Benlioğlu, B. (2024). Enjoyment begets enjoyment: An experience sampling study on the impact of L2 teacher enjoyment on EFL learners' learning enjoyment and willingness to communicate. *System*, 126, 103493. <https://doi.org/10.1016/j.system.2024.103493>
- Teimouri, Y., Plonsky, L., & Tabandeh, F. (2022). L2 grit: Passion and perseverance for second-language learning. *Language Teaching Research*, 26(5), 893-918. <https://doi.org/10.1177/1362168820921895>
- Tomlinson, B. (2012). Materials development for language learning and teaching. *Language Teaching*, 45(2), 143-179. <https://doi.org/10.1017/S0261444811000528>
- Topçu, S., & Leana-Taşçılar, M. Z. (2018). The role of motivation and self-esteem in the academic achievement of Turkish gifted students. *Gifted Education International*, 34(1), 3-18.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Blackwell.
- Van Ryzin, M. J., Gravely, A. A., & Roseth, C. J. (2009). Autonomy, belongingness, and engagement in school as contributors to adolescent psychological well-being. *Journal of Youth and Adolescence*, 38(1), 1-12. <https://doi.org/10.1007/s10964-007-9257-4>
- Wang, P., Ganushchak, L., Welie, C., & van Steensel, R. (2024). The dynamic nature of emotions in language learning context: Theory, method, and analysis. *Educational Psychology Review*. <https://doi.org/10.1007/s10648-024-09946-2>
- Wang, W., & Gan, Z. (2021). Development and validation of the reading motivation questionnaire in an English as a foreign language context. *Psychology in the Schools*, 58(6), 1151-1168. <https://doi.org/10.1002/pits.22494>
- Wang, Y., Shen, B., & Yu, X. (2021). A latent profile analysis of EFL learners' self-efficacy: Associations with academic emotions and language proficiency. *System*, 103, 102633. <https://doi.org/10.1016/j.system.2021.102633>
- Wigfield, A., & Eccles, J. S. (2000). Expectancy-value theory of achievement motivation. *Contemporary Educational Psychology*, 25(1), 68-81.
- Wu, W., Wang, Y., & Huang, R. (2023). Teachers matter: Exploring the impact of perceived teacher affective support and teacher enjoyment on L2 learner grit and burnout. *System*, 117, 103096. <https://doi.org/10.1016/j.system.2023.103096>
- Yüksel, H. G., Solhi, M., Özcan, E., & Giritlioğlu, N. B. (2024). The associations between EFL learners' L2 class belongingness, emotion regulation strategies, and perceived L2 proficiency in an online learning context. *The Language Learning Journal*. <https://doi.org/10.1080/09571736.2024.2403463>
- Zaccoletti, S., Altoè, G., & Mason, L. (2020). Enjoyment, anxiety and boredom, and their control-value antecedents as predictors of reading comprehension. *Learning and Individual Differences*, 79, 1-11. <https://doi.org/10.1016/j.lindif.2020.101869>

- Zawodniak, J., Kruk, M., & Pawlak, M. (2023). Boredom as an aversive emotion experienced by English majors. *RELC Journal*, 54(1), 22-36.
- Zhang, X., Dai, S., & Ardasheva, Y. (2020). Contributions of (de)motivation, engagement, and anxiety to English listening and speaking. *Learning and Individual Differences*, 79, 1-13. <https://doi.org/10.1016/j.lindif.2020.101856>
- Zhao, Y., & Yang, L. (2022). Examining the relationship between perceived teacher support and students' academic engagement in foreign language learning: Enjoyment and boredom as mediators. *Frontiers in Psychology*, 13, 1-15. <https://doi.org/10.3389/fpsyg.2022.987554>
- Zoghi, M. (2012). An instrument for EFL reading anxiety: Inventory construction and preliminary validation. *The Journal of Asia TEFL*, 9, 31-56.