



Ideal L2 self and foreign language achievement: The mediating roles of L2 grit and foreign language enjoyment

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Abstract

Considering the recent, burgeoning interest in positive psychology individual difference factors and the prominent role of ideal L2 self in learning foreign languages, this study is an attempt to investigate the mechanism through which Foreign Language Enjoyment (FLE) and L2 grit could have a mediating role in the association between ideal L2 self and Foreign Language Achievement (FLA). A total of 452 English language learners, selected by convenience sampling from different branches of a language institute, responded to the survey items. The results of data analysis using structural equation modelling (SEM) demonstrated that learners' ideal L2 self, i.e., their image of themselves as competent and proficient EFL users in future, was directly and positively associated with their FLA. Additionally, ideal L2 self was linked to FLA through both L2 grit and FLE. Implications regarding teachers' roles in promoting FLE, ideal L2 self, and L2 grit are discussed.

Keywords Foreign Language Achievement (FLA) · Ideal L2 self · L2 grit · Foreign Language enjoyment (FLE)

Introduction

Embarking upon the journey of acquiring English, no matter as a Second/Foreign Language (ESL/EFL), is an intricate and multifaceted endeavor, marked by intricate navigation of multifarious challenges, as well as dedicated allocation of substantial temporal and cognitive resources. At the very crux of this intricate linguistic expedition resides the paramount influence of motivation, an underlying force that orchestrates not only the initiation and sustenance of the language acquisition process, but also serves as a compensatory mechanism to ameliorate the constraints imposed by inherent language aptitude disparities and the manifold variations in the learning milieu (Dörnyei & Ryan, 2015). The salience of learners' motivational impetus extends beyond mere initiatory engagement, encompassing a sustained commitment that defines the tenor of their entire linguistic

odyssey, delineating the magnitude of their devotion and the intensity of their cognitive investments (Muir, 2022).

Considering the increasingly international status of the English language and the challenges associated with implementing and adapting different motivational theories, e.g., Gardner's (1985) socio-educational model, to EFL contexts, which are not within the scope of this study, a flexible and adaptable model called the L2 Motivational Self System (L2MSS) was developed by Dörnyei (2009) and has been extensively employed to investigate learners' motivation to learn English (see Csizér, 2019). Recent meta-analytic studies attest to the extensive application of this model in studies on motivation in the past 10 years (see Yousefi & Mahmoudi, 2022; Boo et al., 2015). This model comprises three key elements including ideal L2 self, ought-to L2 self, and L2 learning experience. The first element is ideal L2 self which represents language learners' desirable self-image as competent speakers of an L2 in future. Ought-to L2 self, which is the second component of this model, concerns expectations and obligations of external sources such as important others (e.g., teachers, peers, and parents). L2 learning experience is the third element and is related to a wide range of situated motives in learners' immediate learning atmosphere, e.g., teacher, teacher's instructional methodology, textbook, and classroom environment. Given the results of a meta-analysis

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indicating the comparatively stronger role of ideal L2 self, vis-à-vis other L2MSS components, in Foreign Language Achievement (FLA) (Al-Hoorie, 2018), the present study aims to examine the possible mediating underlying mechanisms through which it may contribute to FLA.

Ideal L2 self represents a powerful motivational drive which has been shown to substantially impact learners' engagement, persistence, and success in FLA (Al-Hoorie, 2018; Dörnyei, 2009). As Dörnyei and Ushioda (2009) maintain, this construct has also been found to be a more stable and enduring source of motivation in comparison to other elements of the L2MSS. Additionally, focusing on a single L2MSS component allows evaluating the unique contributions of ideal L2 self, Foreign Language Enjoyment (FLE), and L2 grit to FLA and test their mediating effects. As such, this study probes the role of ideal L2 self in predicting FLA as well as its underlying mechanism via FLE and L2 grit as two key factors in positive psychology. It should be noted that although many studies have separately explored the contributions of ideal L2 self, L2 grit, and FLE to FLA, no study has considered them in a single model. Moreover, there is still scanty research examining the roles of learners' ideal L2 self in their L2 grit (Lan et al., 2021) and FLE (Tahmouresi & Papi, 2021), which may in turn affect their FLA. Furthermore, this study can yield novel insights about the significance of cultivating FLE and L2 grit in promoting FLA among EFL learners. By highlighting the positive role of these motivational constructs in FLA, this study can offer practical implications for EFL teachers and curriculum developers, who may design activities and strategies to promote these motivational factors among EFL learners.

Drawing from both the theoretical foundations and empirical research literature on the concept of ideal L2 self, we propose that students who can vividly picture themselves as skilled users of a foreign/second language might recognize a gap between their current language proficiency level and their envisioned proficient self in future (Dörnyei, 2009). This recognition could stimulate a great determination to invest effort and enhance their language abilities, which are indicative of their increased grit. Moreover, individuals who can vividly envision themselves as fluent and capable users of the target language are more likely to experience positive emotions (see Tahmouresi & Papi, 2021; Papi & Khajavy, 2021). These emotions, driven by high motivation and the perception of learning as an enjoyable endeavor, might further contribute to their language learning experience. Consequently, given the fundamental role of grit in L2 learning (Teimouri et al., 2022a) as well as the substantial impact of positive emotions on cognitive resources (Fredrickson, 2001), it is plausible that learners exhibiting a stronger ideal L2 self could also demonstrate heightened levels of both

L2 grit and FLE. This combination may potentially foster increased FLA as it influences their persistence, emotional engagement, and commitment to their language learning journey.

The investigation of mediating pathways through which ideal L2 self influences FLA may have significant implications for language education. Firstly, the study might offer valuable insights into the motivational factors that foster successful language learning, thereby empowering educators to design customized and efficient language learning interventions. Secondly, the elucidation of L2 grit and FLE's roles in the ideal L2 self-FLA relationship may inform the development of learner-centric strategies that can enhance the quality of language learning experiences. Lastly, the research outcomes may contribute to the broader comprehension of positive psychology factors in L2 learning, serving as a foundational platform for future research endeavors in this domain.

Literature Review

L2 Motivational Self System (L2MSS)

The L2MSS, a significant motivation framework proposed by Dörnyei (2009), offers valuable insights into the intricate interplay between motivation and language learning achievement. Rooted in the theories of self-discrepancy and possible selves (Markus & Nurius, 1986; Higgins, 1987), this theoretical framework focuses on three key elements that shape learners' motivation and behavior in their journey of learning a second language, namely, ideal L2 self, ought-to L2 self, and L2 learning experience.

The first L2MSS element is ideal L2 self which represents learners' image of themselves as competent and successful L2 speakers in future. In other words, it embodies their aspirations, desires, and goals related to language learning. This powerful psychological construct acts as a motivational driver, propelling learners to strive towards becoming the competent L2 users they envision in future. By noticing the discrepancy between their present language abilities and desirable future L2 self-image, L2 learners are motivated to engage in learning activities and invest effort to bridge this gap (Dörnyei, 2009).

Learners' ought-to L2 self, or their perceptions of external expectations and obligations in their language learning journey, is the second element of the L2MSS. These expectations are often influenced by significant others, such as teachers, parents, or peers, who shape learners' sense of responsibility and duty to achieve specific language learning goals. Ought-to L2 self serves as a motivational force, as learners strive to meet external expectations and fulfill

their obligations by demonstrating language proficiency and accomplishment (Dörnyei, 2009).

The third element, L2 learning experience, encompasses a diverse range of situated motives that emerge in learners' immediate language learning environment. These motives can be influenced by various factors, such as teaching methodologies, classroom atmosphere, and interactions with peers and teachers. L2 learning experience plays a crucial role in shaping learners' engagement, interest, and emotional responses to language learning. A positive and enjoyable learning experience enhances motivation, while a negative one may dampen learners' enthusiasm and effort (Dörnyei, 2009).

The three elements of the L2MSS interact and intertwine to create a dynamic motivational system that influences learners' language learning motivation and achievement. Learners with strong ideal L2 selves, driven by their desired future selves as competent L2 users, are more probable to exert effort, engage in L2 learning activities, and persist in the face of challenges. In addition, when external expectations align with learners' internal aspirations, the ought-to L2 self can further enhance motivation. Furthermore, the quality of the L2 learning experience significantly impacts learners' affective responses, engagement, and overall motivation throughout their language learning journey.

The L2MSS provides a robust foundation for investigating the motivational dynamics in learning EFL/ESL and underscores the significance of learners' ideal L2 self-image as a key construct in our research on the link between EFL learners' motivation and their FLA.

Ideal L2 Self

Ideal L2 self, as a powerful motivational source, is an essential L2MSS component, which is deeply rooted in the theories of self-discrepancy and possible selves (Markus & Nurius, 1986; Higgins, 1987). Ideal L2 self, defined as learners' capability in visualizing themselves as effective and competent users of an L2 in future, has the potential to substantially motivate them to invest considerably more effort in the process of L2 learning by causing them to notice a gap between their current level of competence and their ideal image in future and taking measures to minimize it (Dörnyei, 2009). In other words, perceiving a discrepancy between one's present and ideal L2 self can play a stimulating role in expending more effort and time in L2 learning.

The contribution of ideal L2 self to motivation has been widely acknowledged in previous studies. For example, several studies have shown that it can considerably promote L2 learners' motivated learning behavior (e.g., Papi, 2010) and engagement (Al-Hoorie, 2018). Additionally, past studies have shown its positive association with willingness to

communicate (WTC) in L2 contexts (Sadoughi & Hejazi, 2023a; Fathi et al., 2023b), joy (Teimouri, 2017), L2 proficiency (Kim & Kim, 2014), L2 motivational intensity and persistence (Feng & Papi, 2020), and its negative relationship with anxiety (Papi, 2010). Moreover, a recent study by Papi et al. (2019) indicated that ideal L2 self positively and negatively predicted eager and vigilant use of L2, respectively. Last but not the least, in Lamb's (2009) study of EFL learners' motivation level in a two-year period, higher levels of ideal L2 self resulted in a more self-regulated approach to learning and practicing the L2, which led to better L2 learning outcomes. To sum up, learners with stronger and clearer ideal self-images in using an L2 in future may have more motivation for reducing the gap between their present level of competence and their desirable self in future, which may result in higher FLA.

L2 Grit

Learning an L2 is a long, gradual process with different challenges and difficulties, which may impose considerable stress to learners and cause them to feel helpless (Zhang, 2019). Therefore, learners should be actively committed to and highly determined in this process. One crucial factor which can substantially help them is grit or passion and perseverance for long-term goals, which can enable them to diligently work, successfully overcome challenges, and maintain their interest and effort while encountering difficulties and hurdles (Duckworth et al., 2007). Gritty learners have more control over their time and effort, are more engaged in their learning, and have higher academic performance (Wolters & Hussain, 2015). According to Duckworth et al. (2007), two lower-order constructs constitute grit: perseverance of effort (PE) and consistency of interest (CI). PE concerns one's inclination for working hard, devoting substantial effort to learning, and overcoming failures and challenges over a sustained period of time, and CI is related to maintaining interest in learning a particular subject-matter over an extended period of time (Duckworth et al., 2007).

Growing research in educational contexts has addressed grit as a desirable outcome and reported its association with several desirable educational outcomes such as academic engagement (Lan, 2023), academic self-efficacy (Oriol et al., 2017), and well-being (Liao & Chen, 2022). Similar to other academic fields such as science (Barai & Saha, 2022) and mathematics (Miele et al., 2020), burgeoning research in L2 and applied linguistics has recently highlighted the importance of this personality trait (Teimouri et al., 2022b; Pawlak et al., 2022a). The extant literature indicates the essential role of L2 grit in predicting WTC of EFL learners (Lee & Taylor, 2022), engagement, motivated learning behavior (Pawlak et al., 2022b; Sadoughi & Hejazi, 2023b),

L2 performance (Wei et al., 2019), and FLA (Liu & Wang, 2021). Last but not the least, past studies have shown that L2 grit is positively linked with various L2 skills or sub-skills such as vocabulary learning and extensive reading (Kramer et al., 2017) as well as writing (Shafiee Rad & Jafarpour, 2022).

The insertion of L2 grit as a mediator variable in the relationship between ideal L2 self and FLA is theoretically grounded in the current study. L2 learners with vivid ideal L2 selves, i.e., envisioning themselves as proficient speakers of EFL/ESL in the future, may possess higher levels of determination and perseverance (i.e., L2 grit) to reduce the existing gap between their present proficiency level in L2 and their desirable, envisioned self in future, thereby influencing their FLA positively.

Foreign Language Enjoyment (FLE)

Following the ‘emotional turn’ and the advent of positive psychology in EFL/ESL research (Benesch, 2013; Dewaele et al., 2018), increasing research has delved into the contribution of emotions in general and positive emotions in particular (Richards, 2022). Emotions as affective experiences and dynamic processes directly linked to L2 learning activities and outcomes (Shao et al., 2019) play a key role in education to the extent that the teaching profession and the classroom environment are considered as an emotionally demanding job (Hargreaves, 2001) and an emotionally-charged milieu (Pekrun & Linnenbrink-Garcia, 2014), respectively. Although past research has extensively addressed negative emotions in learning EFL/ESL (e.g., Teimouri et al., 2019), recent studies motivated by the positive psychology perspective have particularly highlighted the highly beneficial role of positive emotions (Dewaele et al., 2019).

Foreign Language Enjoyment (FLE), which is considered as a crucial positive emotion in L2 education (Dewaele, 2022), is an activating and activity-focused emotion (Pekrun, 2006). Several studies have emphasized the pivotal role of enjoyment in promoting highly desirable learning outcomes such as engagement, WTC (Fathi et al., 2023b; Peng & Wang, 2022), L2 proficiency (Zhang et al., 2020), and FLA (e.g., Jin & Zhang, 2018). As emphasized in broaden-and-build theory, enjoyment and other positive emotions possess an enormous capacity for mitigating the undesirable effects of anxiety and other negative emotions by promoting students’ momentary thought repertoires and essential cognitive resources as well as enhancing their resilience (Fredrickson, 2001; Shao et al., 2019). Given that enjoyment is associated with learners’ creativity (Dewaele & MacIntyre, 2016) and self-perceived competence (Dewaele & Dewaele, 2017) as well as their negative emotions (see Dewaele &

MacIntyre, 2019; Fathi et al., 2023a; Li et al., 2022), it could play a crucial role in assisting learners in increasing their focus on language input (White, 2018) by reducing their stress levels and enhancing their willingness for taking risks in learning an L2 (Dewaele et al., 2018). Considering the fact that learners envisioning a more vivid ideal L2 self in future are more probable to experience positive emotions, e.g., enjoyment (see Tahmouresi & Papi, 2021; Papi & Khajavy, 2021) and that FLE has a substantial role in EFL learning (Dewaele, 2022), learners that are able to more clearly picture themselves as competent L2 speakers in future may be more successful in mastering a foreign language.

The inclusion of FLE as another mediating factor in the research model of the this study aligns with broaden-and-build theory, suggesting that enjoyment and other positive emotions show a considerable potential in buffering the negative effects of stress and anxiety (Fredrickson, 2001). Learners holding a strong and vivid image of themselves as competent users of an L2 may experience more positive emotions, such as enjoyment, during language learning activities, further enhancing their motivation and engagement (Pekrun, 2006). This positive affective experience can contribute to learners’ FLA and overall language learning achievement. Since learners’ ideal L2 self is linked to their desired future self as proficient L2 users, positive emotional experiences associated with FLE can significantly impact their motivation to pursue their language learning goals and, consequently, influence their FLA. Including FLE as a mediator allows us to capture the affective aspect of motivation and its contribution to language learning achievement.

The Hypothesized Model

Overall, as shown in Fig. 1, this study proposes a model based on which ideal L2 self is directly related to FLA as well as the underlying mechanism through which L2 grit and FLE mediate this relationship. The model is grounded in the well-established theoretical framework of L2MSS proposed by Dörnyei (2009). The L2MSS emphasizes the importance of learners’ ideal L2 self, representing their prospective selves as proficient L2 users, for promoting their motivation and language learning behavior.

Numerous studies have consistently found that individuals with a strong and vivid ideal L2 self show an enormous potential in taking a proactive and purposeful approach to their language learning efforts (e.g., Kim & Kim, 2014; Magid & Chan, 2012). Motivated by their aspiration for closing the gap between their present language abilities and their envisioned future selves, learners holding a clear and vivid ideal L2 self have considerable motivation to invest more effort, time, and dedication into their language learning activities (Zhang et al., 2022). This clear vision of achieving

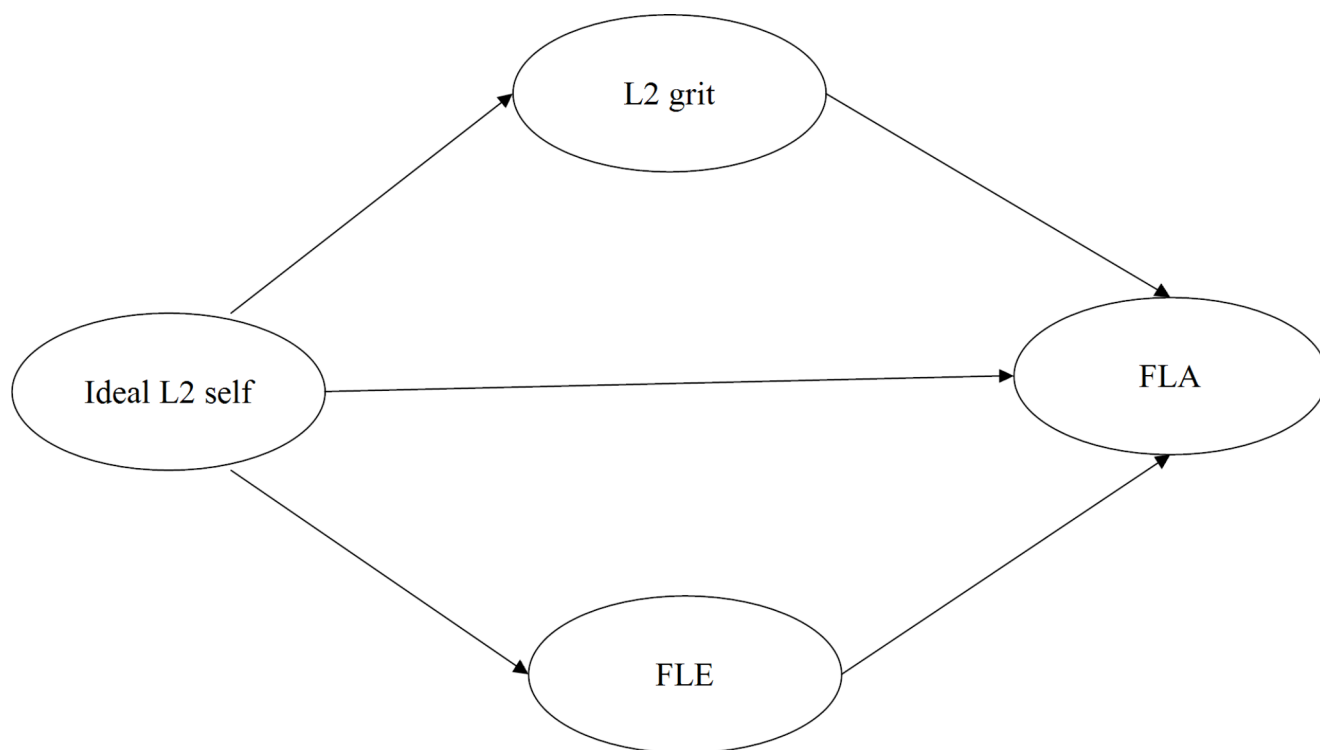


Fig. 1 The proposed model

higher language proficiency instills a sense of purpose and direction, guiding their choices and actions toward activities aligned with their long-term language learning goals.

Furthermore, past research has consistently shown a positive connection between the strength of learners' ideal L2 self and FLA (Çağatay & Erten, 2020; Moskovsky et al., 2016). Learners who strongly identify with their ideal L2 self are more prone to attain higher levels of language proficiency. The resulting motivation stemming from their ideal L2 self-image drives them to sustain their efforts and perseverance, leading to tangible improvements in their language skills and competencies.

H₁: Learners' ideal L2 self is directly associated with FLA.

Characterized as learners' tendency and ability to persist in their L2 learning despite obstacles and difficulties, L2 grit has been found to mediate the interplay between different L2 motivational variables and FLA (Alamer, 2021; Elahi Shirvan & Alamer, 2022; Khajavy & Aghae, 2022). A considerable number of studies have demonstrated that grittier L2 students are more probable to overcome challenges, persist in their learning endeavors, and ultimately achieve higher levels of language proficiency (Alamer, 2021; Elahi Shirvan & Alamer, 2022; Khajavy & Aghae, 2022). Gritty learners exhibit a strong commitment to their long-term

language learning goals and show more resilience when encountering setbacks and obstacles that are inherent in the language learning process.

Moreover, L2 grit can act as a mediating factor in the complex interplay between various L2 motivational variables and FLA. This means that the influence of motivational factors on L2 learning outcomes is partially channeled through learners' grit levels. As learners vividly envision themselves as proficient English speakers in future (ideal L2 self), their strong sense of purpose and determination (L2 grit) propels them to engage in consistent effort and become involved in language learning tasks (Csizér, 2019). When learners possess a clear and compelling vision of their future selves as successful language users, a deep commitment to the pursuit of language proficiency is fostered (Al-Hoorie, 2018), and this motivation is reinforced by their ability to persist despite difficulties, i.e., their L2 grit. The tenacity and perseverance displayed by gritty learners can contribute to the translation of their motivational aspirations into tangible language learning achievements. Gritty learners are more likely to invest the necessary time and effort to narrow the gap between their present language abilities and desired ideal L2 self, thus positively influencing their FLA (Khajavy et al., 2021).

H₂: L2 grit plays a mediating role in the relationship between learners' ideal L2 self and FLA.

Existing literature has highlighted that learners who experience heightened FLE tend to exhibit increased participation in L2 learning activities and attain elevated levels of language proficiency (Li, 2020; Piechurska-Kuciel, 2017). Notably, learners who derive more enjoyment from their language learning experiences often have greater engagement in a variety of learning tasks. This increased involvement not only exposes them to more interactions with the target language but also provides ample opportunities for language practice, subsequently contributing to their overall language proficiency advancement (Li, 2020).

Furthermore, empirical findings stress the mediating role of FLE in linking various L2 motivational factors with different L2 learning outcomes (Li & Wei, 2022; Tahmouresi & Papi, 2021). This suggests that learners' positive emotional encounters during language learning have a pivotal role in bridging the gap between their motivational underpinnings and language learning achievements. By fostering a sense of enjoyment, learners tend to exhibit sustained commitment to language learning tasks, thereby nurturing their motivation, sustaining their engagement, and cultivating a gratifying sense of accomplishment (Fathi et al., 2023a). This collective influence can subsequently cultivate a conducive environment for attaining higher levels of language learning success.

Given the well-established association between FLE and learners' heightened engagement in language learning tasks, as well as its function as a mediating variable linking motivation with language learning outcomes, we posit that FLE also has a mediating role in the dynamic interrelation between ideal L2 self and FLA. As learners vividly envision themselves as proficient and competent speakers of English in future (ideal L2 self), their positive emotional experiences (FLE) could assume a reinforcing role, galvanizing their motivation and propelling them to actively pursue diverse language learning opportunities. This impetus, coupled with their dedicated efforts, contributes to a robust and sustained language learning trajectory. Consequently, the enhanced motivation and heightened engagement fostered by FLE are expected to yield a positive impact on EFL learners FLA. Therefore, we can develop the hypothesis that FLE serves as a vital mediator in the complex interplay of ideal L2 self and FLA.

H₃: FLE has a mediating role in the association between learners' ideal L2 self and FLA.

Method

Participants

The participants were 452 L2 learners from 5 branches of a major language center in Tehran, Iran. One hundred and thirty participants were male, making up 28.76% of the sample, while 349 participants were female, making up 77.21% of the sample. The participants were intermediate English language learners aged 14–19 years old who were selected based on convenience sampling ($M=14.92$, $SD=3.78$). As for their English language learning experience, they reported having learned English for 7–13 years ($M=9.32$, $SD=2.06$). The utilization of convenience sampling was deemed suitable for this study, primarily due to the pragmatic accessibility of potential participants within the context of the selected language center. This approach was deliberately chosen as it aligns with the study's practical feasibility and logistical constraints. Furthermore, employing convenience sampling allowed for the efficient recruitment of a relatively sizable and diverse cohort of EFL learners with intermediate proficiency.

Instruments

Ideal L2 Self

The EFL students' ideal L2 self was measured using 8 self-report items taken from Papi and Abdollahzadeh (2012). The items were rated on a six-point Likert scale ranging from 1 (*Strongly Disagree*) to 6 (*Strongly Agree*). In the current study, the α reliability coefficient of this questionnaire was 0.887.

L2 Grit

The L2 grit scale constructed and validated by Teimouri et al. (2022a) was used to measure the participants' foreign language grit. This scale is composed of 9 items with two sub-scales: Consistency of Interest (CI), which contains 4 items, and Perseverance of Effort (PE), which has 5 items. The respondents responded to the questionnaire items based on a five-point Likert scale. Teimouri et al. (2022a) confirmed the good construct validity and high internal consistency of the two sub-scales. The overall α of this scale was 0.828 in the present study.

Foreign Language Enjoyment (FLE)

EFL learners' FLE was measured by 10 items adopted from Jiang and Dewaele's (2019) questionnaire, which was developed based on a questionnaire developed by Dewaele

and MacIntyre's (2014). Jiang and Dewaele (2019) verified the psychometric features of the questionnaire as having two sub-scales, namely, Social Enjoyment (SE) and Private Enjoyment (PE). The internal consistency of the FLE questionnaire was assessed using the Cronbach Alpha formula, which showed a high reliability coefficient ($\alpha=0.913$) for the whole scale.

Foreign Language Achievement (FLA)

The participants reported their FLA based on their final scores varying from 0 to 100 as announced by their language institutes. The assessment of their performance comprised of an evaluation in receptive (e.g., reading) and productive language skills (e.g., speaking) as well as sub-skills (e.g., grammar, vocabulary, pronunciation). The selection of course grades as a measure of FLA was based on the finding that these grades have a stronger correlation with motivational and personality factors in comparison to standardized tests (Arens et al., 2015) and that they are commonly used in L2 research (Khajavy et al., 2021).

Procedure

The data collection process of the study was performed at five branches of a private EFL center in Tehran, Iran. The researchers approached the head of the institute and the EFL teachers to request their cooperation in conducting the study. After obtaining their consent, the data collection process started from 29 classes of intermediate EFL learners. The EFL learners were notified that their participation was voluntary in this study, and the confidentiality and anonymity of their data were guaranteed for them. The respondents' informed consent was also taken. The exclusion criteria for the study included learners who were unwilling to proceed with the study and refused to grant informed consent. The questionnaires were administered in the 8th session of their course, and the learners were asked to focus on their current course while completing the questionnaires, which took approximately 15–20 minutes. The data collection instrument included a section for asking learners to report their final score in their previous term and demographic features such as gender, age, and learning experience as well as another section with three questionnaires measuring their L2 grit, ideal L2 self, and FLE. The collected data were handled with utmost care to ensure confidentiality and anonymity.

Data Analysis

Participants' demographic features and bivariate correlations between the main variables were analyzed using descriptive statistics in SPSS (version 26). Structural equation modeling

was employed using Amos (version 25.0) for investigating the associations between the variables. Confirmatory factor analysis (CFA) was conducted for ensuring the validity of the measurement model. Then, the maximum likelihood estimation method was utilized for evaluating the fit of the model and estimating the structural model, as suggested by Byrne (2001). Finally, to assess the direct, indirect, and total effects, a bootstrap procedure was applied with 2000 resamples, following the approach outlined by Shrout and Bolger (2002).

The fit of the model was evaluated by various methods in SPSS and Amos software. The χ^2 test was employed, but since it is prone to sensitivity to sample size (Barrett, 2007), additional model fit indices, e.g., Goodness of Fit Index (GFI), Adjust Goodness of Fit Index (AGFI), Root Mean Square Error of Approximation (RMSEA), and Comparative Fit Index (CFI), were checked to ascertain the adequacy of the model fit. According to Byrne (2013), Lance et al. (2006), Hu and Bentler (1999), AGFI, CFI, and GFI values >0.90 and RMSEA values <0.08 represent an acceptable fit. It is important to note that gender, age, and years of English learning experience were included as covariate in the analysis.

Results

First, several preliminary analyses were conducted to address issues related to missing data, normality (multivariate and univariate), and outliers. The missing data were handled using expectation-maximization algorithm, which provides reliable estimates of missing data under the missing at random (MAR) assumption (Mueller & Hancock, 2019). The multivariate normality assumption was checked using the Mardia's test of skewness and kurtosis. The results indicated that the data supported the assumption of multivariate normality (Mardia's coefficient = 47.82, $p=0.091$). To check the univariate normality assumption, we employed histograms, skewness, kurtosis, and the Shapiro-Wilk test. The results showed that all constructs had approximately normal distribution, except for FLA, which had a skewed distribution. We used the natural logarithm transformation to normalize the distribution of the FLA construct. Also, outliers were identified using the Mahalanobis distance (Byrne, 2013). The results revealed that six cases had multivariate outliers. These cases were deleted from the dataset, leading to a final sample size of 446.

The correlations among the variables and descriptive statistics were also calculated. Table 1 displays that the variables have significant correlations, with the strongest association between FLE and ideal L2 self ($r=0.57$).

Table 1 Descriptive statistics and associations among the variables

Variables	Mean	SD	1	2	3	4
1. FLA	79.68	9.27	1			
2. FLE	4.35	0.76	0.41**	1		
3. L2 grit	5.13	0.93	0.39**	0.36**	1	
4. Ideal L2 self	4.08	1.03	0.45**	0.57**	0.42**	1

**Note. $p < 0.01$ (2-tailed), FLE = foreign language enjoyment, FLA = foreign language achievement

Table 2 The results of the measurement model

Latent variable	Observed variable	B	<i>B</i>	SE	CR	P
Ideal L2 self	Ideal 1	0.982	0.803	0.016	48.035	<0.001
	Ideal 2	1.000	0.873			<0.001
	Ideal 3	0.953	0.826	0.016	46.658	<0.001
	Ideal 4	0.899	0.816	0.014	43.254	<0.001
	Ideal 5	0.987	0.837	0.018	49.028	<0.001
	Ideal 6	0.934	0.793	0.015	45.186	<0.001
	Ideal 7	0.883	0.857	0.016	42.854	<0.001
	Ideal 8	0.921	0.885	0.017	44.076	<0.001
FLE	SE	1.000	0.879			<0.001
	PE	0.874	0.801	0.023	38.781	<0.001
L2 grit	G-CI	0.934	0.794	0.019	55.384	<0.001
	G-PE	1.000	0.796	0.021		<0.001
FLA	FLA 1	0.794	0.697	0.017	59.676	<0.001
	FLA 2	0.886	0.798	0.018	61.289	<0.001
	FLA 3	1.000	0.872			<0.001

Note. Ideal: Ideal L2 self, FLE: foreign language enjoyment, FLA: foreign language achievement, SE: social enjoyment, PE: private enjoyment, G-CI: Grit – consistency of interest, G-PE: Grit – perseverance of effort

Measurement Model

The results of measurement model demonstrated a good fit: $\chi^2(124) = 1776.337$, $GFI = 0.965$, $AGFI = 0.944$, $CFI = 0.979$, and $RMSEA = 0.049$. Based on Rogers and Schmitt’s (2004) guidelines, the items from the FLA test were grouped into three parcels to generate three observable indicators that represented this latent variable. The latent variable for ideal L2 self was constructed based on the 8 items from the ideal L2 self scale, each serving as an indicator. The latent variable of FLE was established using the two indicators of social enjoyment (SE) and private enjoyment (PE). Similarly, the latent variable of L2 grit was developed utilizing two indicators: consistency of interest (CI) and perseverance of effort (PE). Table 2 demonstrates the factor loadings for the measurement model. All the observed variables displayed standardized factor loadings within the acceptable range and were significant ($p < 0.001$).

Structural Model

To establish the fit and reliability of the proposed research model, we ran competing CFAs to compare the fit of the alternative models. The aim was to investigate whether the proposed three-factor model, representing ideal L2 self, L2

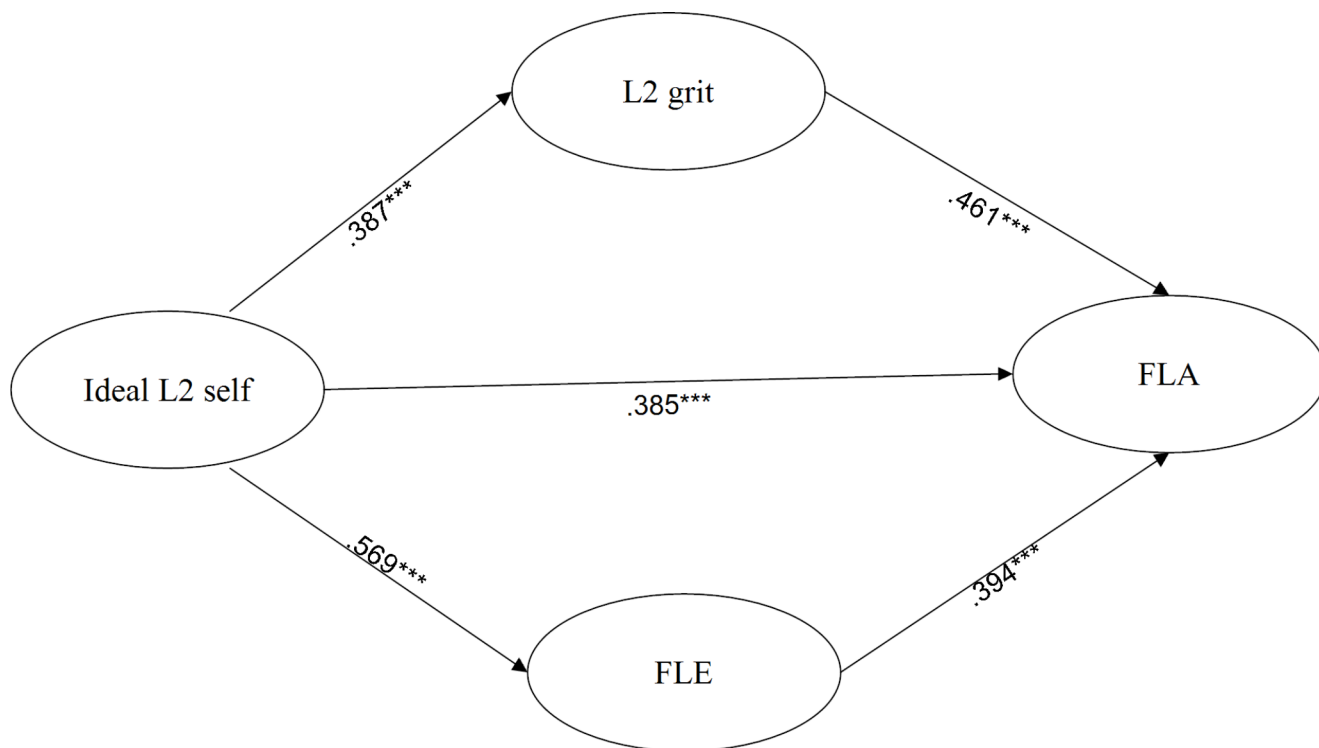
grit, and foreign language enjoyment (FLE), offers a superior fit compared to two alternative models: a single- and a three-factor model with different factor structures.

In the first model, i.e., the single-factor model, all the observed variables (items) were loaded onto a single latent factor, assuming that all measured variables are indicators of a single underlying construct. This model represents a simplification of the proposed model, assuming that all variables contribute to a single general factor. The three-factor model was designed to reflect the distinct latent factors in the proposed research model: ideal L2 self, FLE, and L2 grit. Each observed variable was loaded onto its respective factor, allowing for a more nuanced representation of the underlying constructs. Table 3 displays the fit indices of the competing CFA models, which reveal distinct differences in the fit among the competing models. The proposed model (Fig. 1) demonstrates the best fit ($\chi^2(247) = 3203.120$, $GFI = 0.935$, $AGFI = 0.918$, $CFI = 0.937$, and $RMSEA = 0.052$).

To present the information clearly, the standardized path coefficients among the variables are displayed in Fig. 2. Table 4 demonstrates a direct and positive association between ideal L2 self and FLA ($\beta = 0.385$, $p < 0.001$). Moreover, ideal L2 self has a positive impact on FLE ($\beta = 0.569$, $p < 0.001$) as well as L2 grit ($\beta = 0.387$, $p < 0.001$). FLE and L2 grit have positive associations with FLA ($\beta = 0.394$,

Table 3 Model fit indices for competing CFAs

Model	χ^2	df	GFI	AGFI	CFI	RMSEA
Single-Factor Model	500.456	260	0.832	0.798	0.830	0.081
Three-Factor Model	1500.782	250	0.750	0.710	0.725	0.115
Proposed Model	3203.120	247	0.935	0.918	0.937	0.052

**Fig. 2** The final structural model

$p < 0.001$, and $\beta = 0.461$, $p < 0.001$, respectively). Table 5 provides the indirect, direct, and total effects of the structural model, including the bias-corrected 95% confidence interval. Overall, the obtained results suggest that FLE and L2 grit partially mediate the association between ideal L2 self and FLA. The combination of ideal L2 self, L2 grit, and FLE, and covariates accounted for 46.24% of the variance in FLA.

Discussion

This study investigated the roles of FLE, L2 grit, and ideal L2 self in FLA. More precisely, it examined the link between ideal L2 self and FLA by considering the mediating roles of L2 grit and FLE. Based on the obtained results, learners' ideal L2 self was directly associated with their FLA and that L2 grit and FLE separately played a mediating role in the association between ideal L2 self and FLA.

Regarding H_1 , the findings showed that ideal L2 self was directly and positively linked to FLA, which clearly highlights the crucial role of imagining an ideal self in the

L2 learning process. This finding is in agreement with Al-Hoorie's (2018) meta-analytic study highlighting the importance of this component of L2MSS as the strongest predictor of FLA. In fact, when learners are able to very clearly and vividly visualize themselves as competent users of a foreign language, they are more probable to be highly motivated to take measures for decreasing the existing gap between their current L2 competence and ideal selves as efficient and competent L2 users. Such learners are more motivated (Papi, 2010) and engaged in learning an L2. Furthermore, given the fact that ideal L2 self is positively linked to motivational intensity (Feng & Papi, 2020), learners with more vivid ideal L2 selves may feel less anxious (Papi, 2010) and be more prone to enjoy learning (Tahmouresi & Papi, 2021), which may in turn substantially enhance their L2 proficiency (Kim & Kim, 2014). Interestingly, they are more willing to communicate (Lan et al., 2021) and use L2 more eagerly and vigilantly in their classes (Papi et al., 2019) by taking an active role to self-regulate their learning process (Lamb, 2009). Based on the broaden-and-build theory, it could be argued that individuals who have a better ideal self-image might be more optimistic and experience more

Table 4 The results of the structural model

	Model 1 (FLE)			Model 2 (L2 grit)			Model 3 (FLA)						
	B	SE	CR	P	B	SE	CR	P	B	SE	CR	P	
Gender	0.106	0.061	2.853	<0.001	0.000	0.000	0.021	0.031	0.973	0.116	0.055	3.476	<0.001
Age	0.017	0.013	1.932	0.243	0.015	0.024	0.005	1.834	0.154	0.000	0.000	0.036	0.847
LE	0.028	0.041	3.145	0.009	0.082	0.104	0.013	5.483	<0.001	0.088	0.158	9.762	<0.001
Ideal	0.593	0.569	23.241	<0.001	0.395	0.387	0.029	19.254	<0.001	0.336	0.385	15.346	<0.001
FLE										0.346	0.394	9.163	<0.001
L2 grit										0.495	0.461	17.089	<0.001

Note. FLE = Foreign language enjoyment, FLA = foreign language achievement, LE = learning experience (years)

positive emotions such as hope, which could broaden their thought-action repertoires and enhance their learning processes (Fredrickson, 2001). Therefore, it seems warranted to assume that L2 learners with clearer and more vivid ideal L2 selves may be considerably motivated to achieve success in their language learning and feel more positive emotions, which may in turn result in higher FLA.

In addition, as for H₂, the results showed that L2 grit played a mediating role the association between learners' ideal L2 self and FLA, which clearly indicates the substantial role of motivation. In fact, when learners vividly consider themselves as competent L2 speakers in future, they are more motivated to take necessary measures for bridging the gap between their current level of competence and their desirable, future L2 self-image (Dörnyei, 2009). Consequently, they may become highly persistent and interested, spend a considerable amount of time, and exert more effort in their learning process (Muir, 2022), i.e., they may have higher levels of grit. Gritty learners are able to sustain their effort and interest over the long process of foreign language learning, which can enable them to better control their effort and time, become more engaged, and have higher levels of performance (Wolters & Hussain, 2015). Given that gritty learners have higher levels of motivated learning behavior (Pawlak et al., 2022a) and feel very self-efficacious in their learning (Oriol et al., 2017), they may be more willing to initiate communication (Lee & Taylor, 2022) and engaged in their L2 classes, which can consequently lead to better L2 performance (Wei et al., 2019) and higher FLA (Lee & Taylor, 2022). As shown in previous studies, grittier learners may have better performance in different skills and subskills including, inter alia, L2 writing (Shafiee Rad & Jafarpour, 2022) and vocabulary learning and extensive reading (Kramer et al., 2017).

Additionally, as to H₃, the results indicated the mediating role of FLE in the association between ideal L2 self and FLA. In EFL environments where the chances for using English outside the classroom are limited or non-existent, learners' capacity to vividly envision themselves studying or working overseas generates significant motivation and enthusiasm. As a result, learners may experience elevated levels of joy and enjoyment (Teimouri, 2017; Tahmouresi & Papi, 2021). Based on broaden-and-build theory, learners experiencing more positive emotions have more enduring cognitive resources as well as extended momentary thought-action tendencies (Fredrickson, 2001), which can make them feel more resilient and safer to be engaged in the L2 learning process. Considering that enjoyment can play a protective role against negative emotions and is linked to reduced levels of stress, anxiety, and boredom (Dewaele et al., 2018; Li et al., 2021; Dewaele & MacIntyre, 2019), it can stimulate creativity in L2 learners (Dewaele & MacIntyre,

Table 5 Direct, indirect, and total effects of the structural model

Effect	Path	β	P	Bias-Corrected 95% CI	
				Lower	Upper
Total	Ideal → FLA	0.787	< 0.001	0.719	0.854
Direct	Ideal → FLA	0.385	< 0.001	0.318	0.452
	FLE → FLA	0.394	< 0.001	0.324	0.463
	L2 grit → FLA	0.461	< 0.001	0.392	0.530
Indirect	Ideal → FLE → FLA	0.224	< 0.001	0.165	0.291
	Ideal → L2 grit → FLA	0.178	< 0.001	0.121	0.239

Note. 2000 bootstrap samples, CI: Confidence interval

2016) and help them feel more secure and become more absorbed in their language learning process (MacIntyre & Gregersen, 2012). Learners who find L2 learning a pleasant and enjoyable process may have higher self-assessed competence (Dewaele & Dewaele, 2017) and FLA (Jin & Zhang, 2018).

Conclusions and Implications

The results of the present study emphasized the direct role of ideal L2 self and the mediating roles of L2 grit and FLE in enhancing L2 learners' FLA. Considering the very integral role of students' motivation in EFL/ESL learning in general (Muir, 2022) and ideal L2 self in the present and previous studies for enhancing FLA in particular, significant measures are strongly suggested to be implemented for promoting EFL learners' ideal L2 self. Teachers can utilize a wide range of effective and engaging techniques to help learners develop clear visions of themselves as effective and proficient L2 users. For example, they can employ guided imagery (Dörnyei, 2009) and visualization and goal-setting activities (Al-Murtadha, 2023), design "creative ideal-self-generating activities" by introducing successful EFL learners as role models (Dörnyei, 2009, p. 34), and develop highly communicative tasks, warmers, and icebreakers (Dörnyei & Murphey, 2003).

The implications of the findings, which highlight the mediating roles of FLE and L2 grit, are noteworthy. Considering the arduous and time-consuming nature of L2 learning and the potential of grit for learning (Clark & Malecki, 2019), teachers can play a leading role in keeping learners motivated and committed (Hejazi & Sadoughi, 2023). Considering learners' numerous interactions with teachers in EFL classes, adequate teacher support is deemed crucial as successful L2 learning may prove exceedingly difficult, if not unattainable, without it (Piechurska-Kuciel, 2011). In this regard, teachers are well-positioned to provide diverse forms of support, encompassing emotional, instrumental, informational, and appraisal aspects, to sustain and enhance learners' interest and effort. Moreover, they can tailor their

instructional approaches to cater to learners' preferences and interests by utilizing engaging materials and creating a supportive classroom environment. Additionally, drawing from their own lived experiences or successful learning stories of gritty individuals can underscore the pivotal role of maintaining perseverance and enthusiasm throughout the long journey of L2 learning.

Considering the powerful role of enjoyment as an important positive emotion in buffering the undesirable effects of negative emotions (Pekrun, 2006), it is highly recommended that teachers take key measures to increase learners' FLE. In doing so, they can use classroom activities based on students' interests and establish a friendly and congenial atmosphere for various group/pair work activities. Additionally, they can build friendly rapport with learners (Dewaele & Dewaele, 2020) and appropriately use humor to create a non-threatening and relaxed classroom environment (Senior, 2011). Furthermore, as Richards (2022) suggests, teachers can design and implement activities which foster a culture of collaboration rather than competition, highlight the importance of effort and progress, and emphasize formative rather than summative assessment.

From a theoretical standpoint, the present findings hold the potential to make valuable contributions to the existing literature on motivation and achievement in learning EFL/ESL. The results underscore the significance of the L2MSS and its integral components. Specifically, the findings provide support to the notion that ideal L2 self, as an integral element in L2MSS, emerges as a significant correlate of FLA. Moreover, the mediating roles of L2 grit and FLE further enhance our understanding of how motivation exerts its influence on achievement in EFL contexts. These outcomes align harmoniously with broaden-and-build theory, which posits that enjoyment and other positive emotions serve a pivotal role in promoting students' cognitive and affective resources (Fredrickson, 2001). Consequently, this heightened resourcefulness may motivate learners to actively engage in learning tasks with greater effectiveness. In a similar vein, creating an environment that fosters the development of L2 grit and FLE among language learners can serve as a means to empower them in cultivating

emotional and cognitive resources. Ultimately, this enrichment of resources may lead to enhancement of FLA among EFL learners.

Limitations and Suggestions for Further Studies

Two limitations of the study reported here are related to employing a cross-sectional design and using self-report questionnaires. Thus, further studies are recommended to be conducted longitudinally and collect qualitative data by techniques such as think-aloud protocol or narrative inquiry to explore learners' emic perspectives more deeply. Moreover, given the fact that L2 grit (Wang et al., 2021) as well as FLE (Elahi Shirvan et al., 2021) have a dynamic nature, an experimental design could be used for documenting their development and dynamics. In addition, as this study was undertaken in an EFL context, utmost caution is required when generalizing the obtained results to ESL or other EFL contexts.

Given that the present study considered only the mediation mechanism of the relation between ideal L2 self and FLA, future research may consider how students' beliefs about the changeability and improvability of their abilities for learning an L2, i.e., their language mindsets, might affect this relationship. Additionally, considering the major contribution of L2 learners' learning experience to their motivation and engagement (Li, 2023; Csizér & Kálmán, 2019) as well as the findings of Al-Hoorie' (2018) meta-analytic study highlighting its significant role as the strongest predictor of motivated learning behavior vis-à-vis other L2MSS components, further studies could be conducted to examine how it may moderate the link between ideal L2 self and FLA. Further research may evaluate the moderating roles of other essential factors such as classroom social climate as well as the mediating roles of other potentially influential factors such as learners' goal orientations in the proposed model of this study.

Moreover, delving into the interaction effects among diverse motivational factors and their collective impact on FLA holds the potential for a more nuanced comprehension of motivational dynamics in EFL contexts. Furthermore, a thorough investigation of external factors, including teaching methodologies and classroom environments, in shaping learners' ideal L2 self, L2 grit, and FLE could yield valuable insights for creating optimal language learning settings. Additionally, conducting comparative studies involving EFL learners at varying proficiency levels or different learning stages could shed light on the developmental trajectory of motivation and its implications for FLA. Lastly, it would be beneficial to explore the role of cultural factors in forming

L2 learners' ideal self and its possible effects on motivation and FLA. Cultural disparities in motivational orientations and perceptions of achievement may significantly influence L2 students' ideal self and their subsequent engagement in the language learning process.

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Data Availability The data as well as materials associated with the present study could be available upon fair request.

Declarations

Ethics approval and consent to participate All data collection procedures were in agreement with the ethical standards of the institutional research committee and the 1964 Helsinki Declaration.

Informed consent The informed consent of all the L2 learners participating in this research project was obtained.

Conflict of interest The authors declare that they have no conflict of interest.

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