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Moral Synergy in Language Learning: Mediating Roles of Morality as Cooperation, Foreign Language Enjoyment, and Ideal L2 Self in the Relationship between Growth Language Mindset and Language Classroom Engagement

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ABSTRACT

Objective: This study examines the influence of moral synergy on language learning, focusing on the mediating roles of Morality as Cooperation (MAC), Foreign Language Enjoyment (FLE), and Ideal L2 Self (IL2S) in the relationship between Growth Language Mindset (GLM) and Language Classroom Engagement (LCE) among Iranian English as a Foreign Language (EFL) learners in 2024.

Methods: Employing a quantitative approach and hypothesizing a serial mediation model, data were collected from 350 EFL learners, utilizing the standardized measures to assess the mediating function of MAC, FLE, and IL2S in the association between GLM and LCE through employing structural equation modelling (SEM). The bootstrap method was additionally applied to evaluate indirect effects.

Results: The findings reveal a significant positive relationship between the stated constructs. The analysis revealed strong correlations among constructs, particularly between GLM and LCE ($r = 0.562$, $p < 0.001$). Furthermore, the results demonstrated that MAC plays a crucial mediating role in connecting GLM to LCE (indirect $\beta = 0.13$, $p < 0.001$), alongside FLE (indirect $\beta = 0.07$, $p < 0.001$) and IL2S (indirect $\beta = 0.07$, $p < 0.001$). Additionally, the direct effect of GLM on LCE was significant ($\beta = 0.28$, $p < 0.001$), and the total effect of GLM on LCE, accounting for all mediating pathways, was substantial ($\beta = 0.42$, $p < 0.001$).

Conclusions: Overall, the findings emphasize the interconnected nature of these variables in enhancing language learning motivation and engagement. By promoting a collaborative classroom atmosphere rich in ethical considerations, educators can enhance not only language proficiency but also the moral development of learners, preparing them to become responsible global citizens.

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Introduction

In our increasingly interdependent world, the ability to communicate effectively across cultures has never been more critical. The rise of international communication necessitates effective foreign language learning, yet many learners struggle with engagement in language classrooms (Derakhshan et al., 2022; Hiver et al., 2024; Sayyad Chamani, 2024). As learners navigate the complexities of foreign language learning, the challenges of maintaining engagement and motivation in the classroom often overshadow the opportunities for personal and moral development. This study seeks to explore how the interplay of moral values and cooperative behaviors can enhance language learning experiences, particularly among Iranian EFL learners. By investigating the concept of MAC and its role as a mediating factor, we aim to shed light on how ethical considerations in language learning can foster both enjoyment and engagement (Morris, 2025; Shao, 2025; Turner, 2025; Waterman, 2025).

The theoretical framework of this study is grounded in positive psychology, which emphasizes the role of positive emotions and personal strengths in enhancing educational outcomes. While positive psychology has been criticized for its potential neglect of negative experiences and socio-cultural contexts, as noted by van Zyl et al. (2024), integrating the concept of MAC addresses these shortcomings. MAC posits that moral behaviors, such as cooperation and empathy, are fundamental to fostering supportive learning environments, which can enhance learners' emotional experiences and engagement (Curry et al., 2019b).

By framing the relationship between GLM and LCE through the lens of MAC, this study illustrates how moral principles can mediate learners' emotional responses and motivation. This integration allows for a more holistic understanding of language learning dynamics, where positive emotions like FLE are not only outcomes but also catalysts for moral and cooperative engagement in the classroom. Thus, addressing criticisms of positive psychology through MAC enriches the pedagogical implications of this research, suggesting that ethical considerations can significantly impact language learning outcomes and contribute to the development of responsible community members.

Research indicates that moral frameworks not only guide social interactions but also shape educational practices. The MAC concept posits that moral rules emerge from the necessity of collaboration in human societies, suggesting that a strong moral foundation can facilitate

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cooperative behaviors crucial for language learning (Curry et al., 2019b). This cooperative spirit is paramount in language learning, where effective communication requires not only linguistic capabilities but also an understanding of shared values and ethical motivations. GLM serves as a lens through which we can examine these dynamics, postulating that a belief in the ability to improve language skills through effort encourages collaboration over competition. GLM fosters an environment where students feel empowered to support one another, creating a community that thrives on mutual growth and shared learning experiences (Lou & Noels, 2019).

The literature highlights the significance of FLE as a central motivator in language learning, directly influencing learners' motivation, resilience, and the development of their IL2S (Dewaele & MacIntyre, 2014; Wang et al., 2023). FLE encapsulates the positive emotions experienced during language learning, which in turn foster intrinsic motivation and a sense of belonging, aligning learners' goals with their personal values and enhancing classroom engagement and outcomes (Dörnyei, 2009; Fathi & Hejazi, 2024). LCE is conceptualized as a dynamic construct comprising behavioral, emotional, and cognitive dimensions, each contributing to learners' determination and enthusiasm (Eerdemutu et al., 2024). Research indicates that mastery-oriented environments, which emphasize cooperation and ethical considerations, are more effective in promoting engagement compared to performance-oriented contexts that focus on competition (Hiver et al., 2024). Integrating MAC and GLM into pedagogical practices can thus foster a classroom climate that values collaboration and moral development.

Despite the growing interest in these constructs, there remain notable gaps in understanding their interactions within language learning contexts. This study addresses these gaps by examining how MAC mediates the relationships among FLE, IL2S, GLM, and LCE, particularly among Iranian EFL learners. The findings have practical implications for educators and curriculum designers, suggesting that fostering cooperative values can enhance both academic performance and moral development.

The complexity of language learning is deeply influenced by emotional states, as emphasized by MacIntyre et al. (2019) and Seligman (2018). Positive psychology has shifted attention toward the role of emotions in second language acquisition, with constructs such as GLM, MAC, FLE, and IL2S contributing to a positive classroom climate and more effective language learning

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experiences (Derakhshan et al., 2024). These factors, when integrated, support learners' resilience, collaboration, and motivation.

The GLM distinguishes between fixed and growth mindsets, with the latter viewing abilities as improvable through effort and dedication (Dweck, 2015; Dweck, 2017). Learners with GLM are more likely to set higher goals, embrace challenges, and demonstrate resilience, all of which enhance engagement and mastery in language learning (Lou & Noels, 2017). However, the interplay between GLM, MAC, FLE, IL2S, and LCE remains underexplored, especially in EFL contexts, indicating a need for further research into these interactions.

The MAC is recognized as fundamental to social behavior and is shaped by community interactions and cultural imperatives (Boggio et al., 2024; Durkheim, 2012). The MAC theory posits a positive correlation between moral identity and cooperative behaviors, which can enhance engagement in educational settings (Curry et al., 2019b; Akarsu & Turhan, 2022). Nevertheless, research often examines these constructs in isolation, overlooking their potential synergistic effects on moral and academic development within language classrooms.

The FLE is characterized as a positive, activating emotion that arises when learners successfully navigate language learning challenges (Dewaele & MacIntyre, 2014). FLE significantly contributes to engagement, motivation, and academic achievement, with its effects mediated by constructs like IL2S (Botes et al., 2022; Dewaele et al., 2018). Despite extensive research on FLE, gaps remain in understanding its intersection with moral dimensions such as MAC and its role within broader frameworks involving GLM and LCE, suggesting avenues for future investigation (Fredrickson, 2001; Pekrun & Perry, 2014).

The IL2S is a core component of the L2 motivational self-system, representing learners' aspirations to become proficient language users (Papi et al., 2019). A strong IL2S is positively associated with motivation, effort, and strategic learning behaviors. However, the mechanisms through which IL2S mediates relationships among GLM, MAC, FLE, and LCE are not yet fully understood, limiting the development of comprehensive pedagogical strategies that leverage these interrelationships for improved language learning outcomes.

In conclusion, this study seeks to elucidate the intricate connections between moral synergy and LCE by examining the mediating roles of MAC, FLE, and IL2S in the relationship between GLM and LCE.

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Accordingly, the presented serial mediation model in this study posits that GLM serves as the independent variable, while LCE is identified as the dependent variable. Regarding three mediators, namely MAC, FLE, and IL2S, this model delineates how the GLM influences LCE through the mentioned mediators, illustrating the interconnected pathways that contribute to enhanced engagement in language learning contexts.

Research Questions

1. How does MAC influence the relationships among GLM, FLE, IL2S and LCE in a serial mediation model among Iranian EFL learners?
2. To what extent does MAC function as a sole mediator in the relationship between GLM and LCE among Iranian EFL learners?

Material and Methods

This study employs a serial mediation model to investigate the interrelationships among GLM, MAC, FLE, IL2S, and LCE among Iranian EFL learners. The methodology is designed to capture the complex dynamics of these constructs through a quantitative research approach.

Participants

For this research, a convenience sampling method was utilized to select 350 participants. The current project was conducted across five distinct provinces of Iran: Tehran, Razavi Khorasan, Ardabil, Golestan, and Khuzestan. This study examines 350 Iranian EFL learners aged 13–18 from grades 7–12, with a slightly higher proportion of females (52.86%) than males (47.14%), and the largest group in grade 9 (34.29%), while participation drops to 8.57% in grade 12, especially among females (2.70%). English instruction starts at 90 minutes per week in lower grades and rises to four hours in grade 12, within a system shifting from grammar-translation to communicative teaching. However, about 30% of students still fail end-of-year English exams, and even high achievers often lack basic communication skills, highlighting persistent challenges in translating curricular reforms into effective language proficiency (see Table 1).

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Table 1. The Participants' Demographic Information (N=350)

Education	Male	Female	Total
Grade 7	30 (18.18%)	40 (21.62%)	70 (20.00%)
Grade 8	20 (12.12%)	30 (16.22%)	50 (14.29 %)
Grade 9	50 (30.30%)	70 (37.84%)	120 (34.29 %)
Grade 10	25 (15.15%)	25 (13.51%)	50 (14.29%)
Grade 11	15 (9.09%)	15 (8.11%)	30 (8.57%)
Grade 12	25 (15.15%)	5 (2.70%)	30 (8.57 %)
Total	165 (47.14%)	185 (52.86%)	350 (100 %)

Instruments

Growth Language Mindset (One section of Language Mindsets Inventory (LMI): The present project assessed participants' growth language mindsets (GLM) using the Language Mindsets Inventory (LMI) developed by Lou and Noels (2017), focusing on nine items related to growth mindset across three sub-constructs: general language intelligence beliefs (GLB), second language aptitude beliefs (L2B), and age sensitivity beliefs (ASB), all rated on a five-point Likert scale. The LMI demonstrated good reliability (Cronbach's alpha = 0.78) and underwent confirmatory factor analysis (CFA), which confirmed its construct validity with strong fit indices ($\chi^2/df = 3.2$, CFI = 0.93, TLI = 0.92, RMSEA = 0.03, SRMR = 0.06) and high internal consistency ($\alpha = 0.83$), supporting its effectiveness in distinguishing between fixed and growth mindsets in language learning contexts.

Morality as Cooperation Questionnaire (MAC-Q): The study assessed EFL learners' moral intuitions across seven domains (family, group, reciprocity, heroism, deference, fairness, property) using the 42-item MAC-Q (Curry et al., 2019a), comprising relevance (α=0.89) and judgment (α=0.87) scales. CFA validated the seven-factor model (χ^2/df=2.81, CFI=0.951, RMSEA=0.041) with strong reliability (α=0.82), aligning with MAC theory's cooperative framework. The MAC-Q's seven domains reflect cooperative moral values, as validated in Curry et al. (2019a). Fit indices and reliability metrics confirm robust psychometric properties (Tabachnick et al., 2013).

Short Form of Foreign Language Enjoyment Scale (S-FLES): The participants' enjoyment of foreign languages was measured using the Short Form of the Foreign Language Enjoyment Scale (S-FLES), a validated nine-item instrument developed from a study of 1,603 language learners and

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structured around a three-factor hierarchical model comprising teacher appreciation, personal enjoyment, and social enjoyment as lower-order factors, with overall FLE as the higher-order factor (Botes et al., 2021). The S-FLES demonstrated strong psychometric properties, including high internal consistency (Cronbach's alpha = 0.92), and confirmatory factor analysis indicated excellent construct validity (χ^2/df = 1.78, CFI = 0.982, TLI = 0.961, RMSEA = 0.033, SRMR = 0.042). This concise scale reliably captures key facets of FLE and is suitable for integration into broader assessments of individual differences in language learning experiences.

Ideal L2 Self Scale: The IL2S of EFL learners was measured using an 8-item scale by Papi and Abdollahzadeh (2012), with responses on a six-point Likert scale and excellent reliability (Cronbach's $\alpha = 0.898$). The scale, which includes items such as "I can envision myself living in another country and effectively using English to communicate with local people," captures learners' imagined future identities as proficient English users. Empirical studies in the Iranian EFL context confirm the scale's validity as a motivational construct, although findings indicate that while IL2S is important, external factors (ought-to L2 self) may play a more prominent role in motivating Iranian learners. Confirmatory factor analysis further supported the scale's construct validity (χ^2/df = 2.79, CFI = 0.953, TLI = 0.945, RMSEA = 0.046, SRMR = 0.068), with high internal consistency ($\alpha = 0.87$), reinforcing its status as a key element of the L2 Motivational Self System.

Language Classroom Engagement Scale (LCES): The Language Classroom Engagement Scale (LCES) is a validated nine-item instrument developed to assess student engagement in language learning environments, structured into three subscales-behavioral, emotional, and cognitive engagement-with three items each, and rated on a five-point Likert scale (Eerdemutu et al., 2024). The LCES demonstrates strong psychometric properties, with Cronbach's alpha values above 0.70 for the overall scale and subscales, and confirmatory factor analysis indicating good structural validity (χ^2/df = 2.78, CFI = 0.961, TLI = 0.945, RMSEA = 0.048, SRMR = 0.069). Its external validity is supported by significant correlations with needs satisfaction and academic achievement, confirming its effectiveness as a tool for capturing the multidimensional nature of classroom engagement in language education.

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Data Collection Procedure

Data collection for this study on the mediating role of MAC among GLM, FLE, IL2S, and LCE involved a systematic approach with Iranian EFL learners in grades 7–12 (ages 13–18), reflecting the national context where English instruction begins in grade 7 and increases in weekly duration through high school. The study utilized validated instruments for each construct (GLM section of the LMI, MAC-Q, S-FLES, IL2S scale, and LCES), distributed via both online (Google Forms through the Shad system) and paper questionnaires to ensure accessibility. Instruments were pilot tested for clarity, and clear instructions emphasized voluntary participation, confidentiality, and the right to withdraw. Data collection spanned several weeks, with reminders and teacher assistance to maximize participation. Ethical approval was obtained from the Iranian Ministry of Education, and informed consent was secured from both students and their guardians. Anonymity was maintained by assigning unique identifiers, and completed responses were compiled into a database for analysis. This rigorous process ensured reliable, valid data for examining the interplay of MAC with motivational and engagement constructs in Iranian EFL classrooms.

Data Analysis

The data analysis for this study examining the serial mediating role of MAC (first mediator), FLE (second mediator), and IL2S (third mediator) between GLM and LCE was conducted using SPSS AMOS 26 and the PROCESS macro. After organizing and cleaning the dataset, missing values were addressed through imputation, and descriptive statistics were calculated to summarize participant demographics and variable distributions. A serial mediation model was specified in AMOS 26, with clearly labeled paths: a (GLM to MAC), b (MAC to FLE), c (FLE to IL2S), and d (IL2S to LCE). The mediated effect was calculated as the product of these paths (a×b×c×d). To assess the significance of mediation, a bootstrap method with 5,000 samples and bias-corrected confidence intervals was employed, as recommended for robust mediation analysis in linguistics and educational research. Results were reported with direct and indirect effects, confidence intervals, and p-values, allowing for the identification of full or partial mediation within the model. This rigorous approach ensured valid and reliable insights into the mediating mechanisms among the studied constructs in the Iranian EFL context (Hayes & Rockwood, 2017; Meyers et al., 2016; Pallant, 2020).

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Results

Before starting the analysis, we pre-processed the data to find any problematic responses. We initially collected 410 complete responses with no missing data. After reviewing the responses, we identified 39 that showed unusual patterns, such as always increasing, decreasing, or staying the same, and removed them from the dataset. We then calculated the standard deviation for each participant's answers to assess variability and found that 21 respondents had low variability (SD < 0.5), leading to their exclusion as well. This data cleaning process resulted in a final dataset of 350 valid cases for analysis.

As shown in Table 2, the descriptive statistics for the five constructs, namely GLM, MAC, FLE, IL2S, and LCE, indicate that the sample size for each variable is 350. The mean values suggest that MAC has the highest average (M = 162.61, SD = 23.75), followed by GLM (M = 36.42, SD = 5.28) and LCE (M = 36.41, SD = 6.01). FLE has a slightly lower mean (M = 34.34, SD = 6.35), while IL2S shows the lowest mean (M = 30.94, SD = 7.20). The skewness values ranged from -0.342 to 0.657, while kurtosis values varied between -1.124 and 0.127 for all variables, remaining within the acceptable range of ±2.0 (Hair et al., 2014). This suggests that the data demonstrated a normal distribution.

According to the reported numbers in Table 2, the correlation matrix reveals significant relationships among the constructs at the 0.01 level (two-tailed). Notably, GLM and LCE exhibit a strong positive correlation (r = 0.562), indicating that as one increases, so does the other. Similarly, FLE shows a robust correlation with LCE (r = 0.668), suggesting a strong association between these variables as well. MAC correlates moderately with GLM and LCE (r = 0.393 and r = 0.371 respectively), while its correlation with IL2S is weaker (r = 0.184). These findings imply that while all constructs are interrelated to some extent, certain pairs exhibit stronger associations that may warrant further investigation into their underlying relationships.

Regarding Figure 1, the serial mediation model provided demonstrates a good overall fit to the data, as indicated by the RMSEA value of 0.037, which falls within the acceptable range of less than 0.05. Furthermore, the baseline comparisons model fit indices, including χ^2 (114) = 180.21, $p > 0.05$, $\chi^2/df = 1.58$; the NFI (0.997), RFI (0.957), IFI (0.999), TLI (0.986), and CFI (0.999), all show excellent values close to or greater than 0.95, further supporting the strong fit of the model (Meyers et al., 2016).

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Table 2. Descriptive Statistics and Correlations

Construct	M	SD	1	2	3	4	5
1.GLM	36.42	5.28	-	0.393**	0.408**	0.385**	0.562**
2.MAC	162.61	23.75		-	0.369**	0.184**	0.371**
3.FLE	34.34	6.35			-	0.491**	0.668**
4.IL2S	30.94	7.20				-	0.540**
5.LCE	36.41	6.01					-

***Correlation is significant at the 0.01 level (2-tailed).*

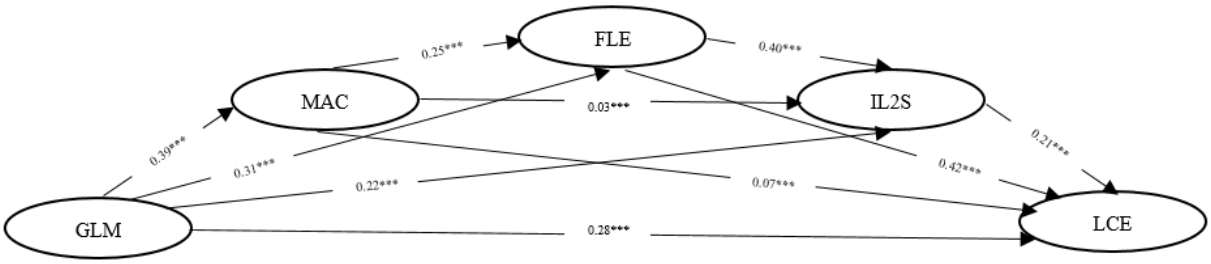


Figure 1. The Serial Mediation Model with Three Mediators

Note:
GLM: Growth Language Mindset;
MAC: Morality as Cooperation (M1);
FLE: Foreign Language Enjoyment (M2);
IL2S: Ideal L2 Self (M3);
LCE: Language Classroom Engagement

To boost confidence in the model's indirect effects, we used bootstrapping with 5,000 iterations, following the assumptions of mediation analysis (Hayes & Rockwood, 2017). This method creates new datasets by resampling with replacement, allowing for better estimation of the model and a more accurate sampling distribution for the indirect effects. We calculated 95% confidence intervals (CIs) for these effects using the bias-corrected bootstrap method to reduce bias in estimates. An indirect effect is significant if its 95% CI does not include zero, confirming a reliable mediation effect and strengthening our analysis results.

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Table 3. Direct and Indirect Effects of SEM Analysis

Path	*β*	SE	95% CI [Lower bound; Upper bound]	*P*	Decision
Direct Effects					
GLM → MAC	0.39	0.05	[0.27; 0.35]	<0.001	supported
GLM → FLE	0.31	0.05	[0.22; 0.34]	<0.001	supported
GLM → IL2S	0.22	0.05	[0.34; 0.49]	<0.001	supported
GLM → LCE	0.28	0.05	[0.22; 0.34]	<0.001	supported
MAC → FLE	0.25	0.05	[0.21; 0.29]	<0.001	supported
MAC → IL2S	0.03	0.05	[0.32; 0.47]	<0.001	supported
MAC→ LCE	0.07	0.05	[0.32; 0.54]	<0.001	supported
FLE → IL2S	0.40	0.05	[0.41; 0.53]	<0.001	supported
FLE → LCE	0.42	0.05	[0.21; 0.33]	<0.001	supported
IL2S→ LCE	0.21	0.05	[0.34; 0.51]	<0.001	supported
Indirect Effects					
GLM→MAC→LCE	0.13	0.02	[0.09; 0.17]	<0.001	supported
GLM→FLE→LCE	0.07	0.02	[0.03; 0.12]	<0.001	supported
GLM→IL2S→LCE	0.07	0.03	[0.02; 0.13]	<0.001	supported
GLM→MAC→FLE→LCE	0.04	0.01	[0.02; 0.08]	<0.001	supported
GLM→FLE→IL2S→LCE	-0.03	0.01	[-0.06; -0.01]	<0.001	supported
GLM→MAC→IL2S→LCE	-0.02	0.01	[-0.03; -0.01]	<0.001	supported
GLM→MAC→FLE→IL2S→LCE	-0.01	0.01	[-0.02; -0.01]	<0.001	supported
Total Effects					
GLM→LCE	0.42	0.03	[0.37; 0.47]	<0.001	

Note: β = Standardized path coefficient, SE = Standard Error, CI = Confidence Interval

As shown in Table 3, the results provide clear insights into the research questions. For the first question, the analysis shows that MAC is an important mediator between GLM and LCE. The indirect effect of GLM on LCE through MAC is significant ($\beta = 0.13$, $p < 0.001$), indicating MAC's role in connecting GLM and LCE. Specifically, the mediated effect was calculated as: Mediated Effect = a (GLM → MAC) × b (MAC → LCE) = 0.39 × 0.07 = 0.0273, with significance at $p < 0.001$. However, MAC does not act alone; additional paths involving FLE and IL2S were also found. For example, the mediated effect of GLM on LCE via FLE was: Mediated Effect = a (GLM → FLE) × b (FLE → LCE) = 0.31 × 0.42 = 0.1302, significant at $p < 0.001$. Similarly, the effect through IL2S was: Mediated Effect = a (GLM → IL2S) × b (IL2S → LCE) = 0.22 × 0.21 = 0.0462, also significant at $p < 0.001$. These findings emphasize the roles of both FLE and IL2S as mediators between GLM and LCE. The serial mediation analysis confirms the significance of indirect effects of GLM on LCE through multiple mediators. Overall, while MAC is a key first-stage mediator, it works alongside FLE and IL2S to explain how goal-oriented learning motivation affects LCE.

The data analysis results in Table 3 also provide strong statistical support for the hypothesized direct effects in the proposed model. Specifically, as GLM has a significant positive

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influence on MAC ($\beta = 0.39$, $p < 0.001$). This indicates that higher levels of GLM among Iranian EFL learners are associated with enhanced MAC.

Regarding the influence of MAC, the results provide support for indicating that improved morality factors in this research contribute to greater enjoyment of foreign language learning and the level of IL2S among Iranian EFL learners (MAC positively influences FLE, $\beta = 0.25$, $p < 0.001$), (MAC positively influences IL2S, $\beta = 0.33$, $p < 0.001$). However, the direct effect of MAC on LCE, though statistically significant ($\beta = 0.07$, $p < 0.001$), is relatively weaker compared to its indirect effects. This suggests that MAC's influence on LCE is primarily indirect, operating through its connections with FLE and IL2S. The direct effects of FLE on IL2S ($\beta = 0.40$, $p < 0.001$), FLE on LCE ($\beta = 0.42$, $p < 0.001$), and IL2S on LCE ($\beta = 0.21$, $p < 0.001$) are also supported.

The mediation analysis shows several significant indirect effects, as GLM positively influences LCE through MAC ($\beta = 0.13$, $p < 0.001$). GLM also influences LCE through FLE ($\beta = 0.07$, $p < 0.001$) and GLM influences LCE through IL2S ($\beta = 0.07$, $p < 0.001$). The serial mediation analysis emphasizes MAC's role as a first-stage mediator, with significant indirect effects of GLM on LCE through various pathways: GLM → MAC → FLE → LCE ($\beta = 0.04$, $p < 0.001$), GLM → MAC → FLE → IL2S → LCE ($\beta = -0.03$, $p < 0.001$), GLM → MAC → IL2S → LCE ($\beta = -0.02$, $p < 0.001$), and the multiple-mediator pathway GLM → MAC → FLE → IL2S → LCE ($\beta = -0.01$, $p < 0.001$). The mediated effect of GLM on LCE through both MAC and FLE was calculated as: Mediated Effect = a (GLM → MAC) × b (MAC → FLE) × c (FLE → LCE) = 0.39 × 0.25 × 0.42 = 0.0414, significant at $p < 0.001$. The pathway involving FLE and IL2S yielded a mediated effect of: Mediated Effect = a (GLM → FLE) × b (FLE → IL2S) × c (IL2S → LCE) = 0.31 × 0.40 × 0.21 = 0.0261, also significant at $p < 0.001$. GLM also influences LCE through MAC and IL2S, calculated as Mediated Effect = a (GLM → MAC) × b (MAC → IL2S) × c (IL2S → LCE) = 0.39 × 0.25 × 0.21 = 0.0205, with significance at $p < 0.001$. The comprehensive mediation calculation was: Mediated Effect = a (GLM → MAC) × b (MAC → FLE) × c (FLE → IL2S) × d (IL2S → LCE) = 0.39 × 0.25 × 0.40 × 0.21 = 0.0083, significant at $p < 0.001$. However, the results show that MAC does not act alone as a mediator in the GLM-LCE relationship due to significant indirect effects through FLE and IL2S as additional mediators (see Table 3).

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Discussion

This research intended to address the existing gap by exploring the mediating effect of MAC in a serial mediation model and how it impacts the relationships among GLM, FLE, IL2S, and LCE in the context of Iranian EFL learners. By examining the mediating roles of three mediators, including MAC, FLE, and IL2S in the association between GLM and LCE, this project filled a significant gap in the existing literature. Previous studies have established that emotional states, mindsets, and moral frameworks significantly influence language acquisition and classroom dynamics. However, the specific interactions among these constructs remained underexplored, particularly in the context of EFL education.

The findings of this study align with earlier research that emphasizes the importance of emotional engagement in language learning. For instance, Dewaele and MacIntyre (2014) highlight that FLE is vital for motivating learners, supporting the notion that positive emotional experiences can enhance academic performance. This study extends their findings by demonstrating how FLE mediates the relationship between MAC and IL2S, suggesting that a cooperative moral atmosphere not only fosters enjoyment but also helps learners envision their ideal selves as proficient language users.

Moreover, the concept of GLM has been extensively studied in relation to student motivation and resilience. Lou and Noels (2019) assert that a growth mindset encourages collaboration and mutual support among learners. Our results corroborate this by showing that GLM significantly predicts LCE through its interaction with MAC and FLE. This reinforces the idea that a growth-oriented classroom environment enhances engagement by promoting cooperative behaviors, aligning with findings from Hiver et al. (2024), which advocate for mastery-oriented learning environments.

The role of MAC as a mediating factor is particularly noteworthy. Previous literature has recognized the importance of moral education in fostering social integration and cooperation (Durkheim, 2012). Our study builds on this foundation by illustrating how MAC influences both FLE and IL2S, thereby enhancing LCE. This suggests that ethical considerations in language learning can lead to deeper engagement and personal growth among learners, an aspect often overlooked in prior research.

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In addressing the critiques outlined by van Zyl et al. (2024), our findings provide empirical support for the relevance of MAC within this framework. While critiques often highlight limitations in the traditional understanding of positive psychology as solely individualistic or culturally specific, our research illustrates how moral synergy can facilitate cooperation and enhance learning outcomes. By framing our study within positive psychology, the current study not only validates the theory of MAC but also demonstrates its potential to enrich pedagogical practices. This dual focus on moral development and academic achievement offers a comprehensive perspective that addresses existing criticisms and highlights the transformative power of moral values integration in language learning.

The implications of these findings are profound for educators and curriculum designers. By integrating moral values into language learning frameworks, educators can create environments that not only prioritize linguistic proficiency but also foster ethical behavior and personal development. This holistic approach aligns with contemporary educational practices that emphasize social-emotional learning alongside academic achievement.

Furthermore, our study highlights the necessity for pedagogical strategies that promote cooperation among students. By cultivating a classroom atmosphere rich in ethical considerations, educators can enhance learners' enjoyment and engagement, ultimately leading to improved academic outcomes. This approach resonates with the growing body of literature advocating for positive psychology in education, which emphasizes the role of emotions in fostering resilience and motivation (Seligman, 2018).

Distinguishing itself from prior research, this study uniquely explores the dynamic interplay between moral values, affective states, and educational engagement in language learning by empirically examining how MAC mediates the relationships among GLM, FLE, IL2S, and lLCE) in the context of Iranian EFL learners-a constellation of constructs and a population rarely investigated together in this manner (Derakhshan et al., 2022; Hiver et al., 2024; Sayyad Chamani, 2024). While prior studies have addressed the importance of communicative competence, cross-cultural awareness, and ethical values in EFL contexts (Dörnyei, 2009; Dewaele & MacIntyre, 2014; Curry et al., 2019b), most have either focused on isolated factors or neglected the nuanced role of moral and cooperative behaviors in shaping classroom engagement and learner motivation (Lou & Noels, 2019; Akarsu & Turhan, 2022). By integrating MAC as both a theoretical and

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practical lens (Curry et al., 2019b; Boggio et al., 2024), this research advances the field by offering a comprehensive framework that highlights how ethical considerations and positive psychology (Seligman, 2018; van Zyl et al., 2024) can synergistically foster supportive, collaborative, and engaging language learning environments (Fathi & Hejazi, 2024; Eerdemutu et al., 2024). This approach not only fills a critical gap in the literature (Dweck, 2017; MacIntyre et al., 2019) but also provides actionable insights for educators and curriculum designers seeking to promote both linguistic proficiency and the moral development of learners (Morris, 2025; Shao, 2025), ultimately contributing to the cultivation of responsible, globally minded citizens (Turner, 2025; Waterman, 2025).

Overall, this study advocates for a holistic approach to language learning that prioritizes emotional and ethical dimensions alongside academic achievement. By fostering environments that encourage MAC as a meaningful player in the world of student engagement, educators can significantly impact learners' experiences and outcomes in EFL contexts. This aligns with contemporary educational practices that emphasize the interplay between social-emotional learning and academic success, paving the way for future research to further explore these critical relationships.

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Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by the ethics committee of Hakim Sabzevari University. The patients/participants provided their written informed consent to participate in this study.

Author contributions

All authors contributed to the study conception and design, material preparation, data collection, and analysis. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

References

Akarsu, N., & Turhan, M. (2022). The Relationship between School Moral Atmosphere and Student Engagement in Secondary Schools. International Journal of Contemporary Educational Research, 9(4), 694-704. https://doi.org/10.33200/ijcer.1060331

Boggio, P. S., Nezlek, J. B., Alfano, M., Azevedo, F., Capraro, V., Cichocka, A., & Van Bavel, J. J. (2024). A time for moral actions: Moral identity, morality-as-cooperation and moral circles predict support of collective action to fight the COVID-19 pandemic in an international sample. Group Processes & Intergroup Relations, 27(1), 178-195. https://doi.org/10.1177/13684302231153800

Botes, E., Dewaele, J. M., & Greiff, S. (2021). The development and validation of the short form of the foreign language enjoyment scale. The 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/ssllt.2022.12.2.3

[Downloaded from ijer.hormozgan.ac.ir on 2026-11-20]

[DOI: 10.22034/ijer.4.4.4]

Curry, O. S., Chesters, M. J., & Van Lissa, C. J. (2019a). Mapping morality with a compass: Testing the theory of 'morality-as-cooperation 'with a new questionnaire. Journal of Research in Personality, 78, 106-124. https://doi.org/10.1016/j.jrp.2018.10.008

Curry, O. S., Mullins, D. A., & Whitehouse, H. (2019b). Is it good to cooperate? Testing the theory of morality-as-cooperation in 60 societies. Current anthropology, 60(1), 47-69. https://doi.org/10.1086/701478

Derakhshan, A., Doliński, D., Zhaleh, K., Enayat, M. J., & Fathi, J. (2022). A mixed-methods cross-cultural study of teacher care and teacher-student rapport in Iranian and Polish University students' engagement in pursuing academic goals in an L2 context. System, 106, 102790. https://doi.org/10.1016/j.system.2022.102790

Derakhshan, A., Fathi, J., Pawlak, M., & Kruk, M. (2024). 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, 45(8), 3415-3433. https://doi.org/10.1080/01434632.2022.2099407

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/ssllt.2014.4.2.5

Dewaele, J. M., Witney, J., Saito, K., & Dewaele, L. (2018). Foreign language enjoyment and anxiety: The effect of teacher and learner variables. Language teaching research, 22(6), 676-697. https://doi.org/10.1177/1362168817692161

Dörnyei, Z. (2009). The L2 motivational self-system. Motivation, language identity and the L2 self/Multilingual Matters. https://doi.org/10.21832/9781847691293-003

Durkheim, E. (2012). Moral education. Courier Corporation. https://doi.org/10.4324/9780203993347-25

Dweck, C. (2015). Carol Dweck revisits the growth mindset. Education week, 35(5), 20-24. https://doi.org/10.1037/e524952015-005

Dweck, C. S. (2017). The journey to children's mindsets—and beyond. Child Development Perspectives, 11(2), 139-144. https://doi.org/10.1111/cdep.12225

[Downloaded from ijer.hormozgan.ac.ir on 2026-11-20]

[DOI: 10.22034/ijer.4.4.4]

Eerdemutu, L., Dewaele, J. M., & Wang, J. (2024). Developing a short language classroom engagement scale (LCES) and linking it with needs satisfaction and achievement. System, 120. 103189. https://doi.org/10.1016/j.system.2023.103189

Fathi, J., & Hejazi, S. Y. (2024). Ideal L2 self and foreign language achievement: The mediating roles of L2 grit and foreign language enjoyment. Current Psychology, 43(12), 10606-10620. https://doi.org/10.1007/s12144-023-05187-8

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. American psychologist, 56(3), 218. https://doi.org/10.1037//0003-066x.56.3.218

Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). Partial least squares structural equation modeling (PLS-SEM) using R: A workbook (p. 197). Springer Nature. https://doi.org/10.1007/978-3-030-80519-7

Hayes, A. F., & Rockwood, N. J. (2017). Regression-based statistical mediation and moderation analysis in clinical research: Observations, recommendations, and implementation. Behaviour research and therapy, 98, 39-57. https://doi.org/10.1016/j.brat.2016.11.001

Hiver, P., Al-Hoorie, A. H., Vitta, J. P., & Wu, J. (2024). Engagement in language learning: A systematic review of 20 years of research methods and definitions. Language teaching research, 28(1), 201-230. https://doi.org/10.1177/13621688211001289

Lou, N. M., & Noels, K. A. (2017). Measuring language mindsets and modeling their relations with goal orientations and emotional and behavioral responses in failure situations. The Modern Language Journal, 101(1), 214-243. https://doi.org/10.1111/modl.12380

Lou, N. M., & Noels, K. A. (2019). Promoting growth in foreign and second language education: A research agenda for mindsets in language learning and teaching. System, 86, 102126. https://doi.org/10.1016/j.system.2019.102126

MacIntyre, P. D., Gregersen, T., & Mercer, S. (2019). Setting an agenda for positive psychology in SLA: Theory, practice, and research. The Modern Language Journal, 103(1), 262-274. https://doi.org/10.1111/modl.12544

Meyers, L. S., Gamst, G., & Guarino, A. J. (2016). Applied multivariate research: Design and interpretation. Sage publications. https://doi.org/10.4135/9781071802687

[Downloaded from ijer.hormozgan.ac.ir on 2026-11-20]

[DOI: 10.22034/ijer.4.4.4]

Morris, S. G. (2025). What Can Replace Morality? In Moral Damages: The Case for Abolishing Morality (pp. 221-246). Cham: Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-80244-7_8

Pallant, J. (2020). SPSS survival manual: A step by step guide to data analysis using IBM SPSS. Routledge. https://doi.org/10.4324/9781003117452

Papi, M., & Abdollahzadeh, E. (2012). Teacher motivational practice, student motivation, and possible L2 selves: An examination in the Iranian EFL context. Language learning, 62(2), 571-594. https://doi.org/10.1111/j.1467-9922.2011.00632.x

Papi, M., Bondarenko, A. V., Mansouri, S., Feng, L., & Jiang, C. (2019). Rethinking L2 motivation research: The 2× 2 model of L2 self-guides. Studies in Second Language Acquisition, 41(2), 337-361. https://doi.org/10.1017/s0272263118000153

Pekrun, R., & Perry, R. P. (2014). Control-value theory of achievement emotions. In International handbook of emotions in education (pp. 120-141). Routledge. https://doi.org/10.4324/9780203148211.ch7

Sayyad Chamani, S. (2024). An Investigation into the Impact of EFL Teachers' Rapport on Classroom Interactions and Students' Participation in Class Activities: The Case of Experienced and Novice Teachers. International Journal of Research in English Education, 9(3), 34-45. http://ijreeonline.com/article-1-887-en.html

Seligman, M. (2018). PERMA and the building blocks of well-being. The journal of positive psychology, 13(4), 333-335. https://doi.org/10.1080/17439760.2018.1437466

Shao, W. (2025). Perceived Teacher Clarity and Willingness to Communicate in L2: The Mediating Effect of Enjoyment. Psychology in the Schools. https://doi.org/10.1002/pits.23520

Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2013). Using multivariate statistics (Vol. 6, pp. 497-516). Boston, MA: pearson. https://doi.org/10.1037/e676252012-088

Turner, S. (2025). Shaping Morality: Psychological Predictors of Morality as Cooperation (Doctoral Dissertation), University of East London.

van Zyl, L. E., Gaffaney, J., van der Vaart, L., Dik, B. J., & Donaldson, S. I. (2024). The critiques and criticisms of positive psychology: A systematic review. The Journal of Positive Psychology, 19(2), 206-235. https://doi.org/10.1080/17439760.2023.2178956

[Downloaded from ijer.hormozgan.ac.ir on 2026-11-20]

[DOI: 10.22034/ijer.4.4.4]

Wang, H., Xu, L., & Li, J. (2023). Connecting foreign language enjoyment and English proficiency levels: The mediating role of L2 motivation. Frontiers in psychology, 14, 1054657. https://doi.org/10.3389/fpsyg.2023.1054657

Waterman, M. E. G. A. N. (2025). The Good, the Bad, or the Cooperative–A New Approach to Morality: Investigating the Relationships Between Attachment, Compassion, and Morality-as-Cooperation (Doctoral dissertation), University of East London.

[Downloaded from ijer.hormozgan.ac.ir on 2026-11-20]

[DOI: 10.22034/ijer.4.4.4]