

From Learning Beliefs to Engagement: The Mediating Role of Motivation among Malaysian CFL Learners

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ABSTRACT

This study investigates the relationships among learning beliefs, learning motivation, and learning engagement in the context of Chinese as a Foreign Language (CFL) among Malaysian university students, with a particular focus on the mediating role of motivation. Drawing on a learner psychology perspective, the study proposes and tests a mediation model linking these three key constructs. A quantitative research design was adopted, and data were collected from 208 undergraduate students enrolled in CFL courses using a structured questionnaire. The data were analysed using descriptive statistics, correlation analysis, regression analysis, and mediation analysis with bootstrapping procedures. The results reveal that learning beliefs significantly and positively predict both learning motivation and learning engagement. Learning motivation emerges as the strongest predictor of engagement, indicating its central role in shaping learners' active participation. Furthermore, mediation analysis demonstrates that learning motivation partially mediates the relationship between learning beliefs and learning engagement, suggesting that beliefs influence engagement both directly and indirectly through motivational processes. These findings contribute to the field of second language acquisition by providing empirical support for an integrated model of learner psychology and by extending mediation-based research to the CFL context. The study also offers pedagogical implications for enhancing student motivation and engagement through the development of positive learning beliefs.

1. Introduction

In recent years, the role of learner psychology has gained increasing prominence in the field of second language acquisition (SLA), reflecting a broader shift toward understanding the complex interplay between cognitive, affective, and contextual factors

in language learning (Dörnyei & Ryan, 2015; Mercer & Dörnyei, 2020). Among these psychological constructs, learner beliefs, motivation, and engagement have been identified as three core variables that significantly influence language learning processes and outcomes.

Learner beliefs, defined as learners' assumptions and perceptions about language learning, its nature, and the conditions for success, have long been recognised as a crucial factor shaping learning behaviour (Horwitz, 1987; Barcelos & Kalaja, 2011). These beliefs not only guide learners' strategic choices but also influence their persistence, effort, and emotional responses to learning challenges. Empirical studies have shown that positive and adaptive beliefs are often associated with higher levels of motivation and more effective learning behaviours (Kalaja et al., 2016).

Motivation, in turn, has consistently been regarded as one of the most powerful predictors of success in second language learning. Early theoretical models, such as Gardner's (1985) socio-educational model, emphasised the role of integrative and instrumental orientations in shaping learners' motivation. More recently, Dörnyei's (2005) L2 Motivational Self System has reconceptualised motivation as closely linked to learners' self-identity and future self-guides, highlighting its dynamic and context-sensitive nature. A growing body of research further suggests that motivation not only drives learning effort but also plays a central role in sustaining learners' active involvement in classroom activities (Ushioda, 2011). Recent research adopting a meta-analytic approach further confirms that motivation and emotion jointly play a crucial role in shaping language learning outcomes (Al-Hoorie & MacIntyre, 2020).

Closely related to motivation is the construct of learner engagement, which has emerged as a key concept in contemporary educational research. Engagement is generally conceptualised as a multidimensional construct encompassing behavioural, emotional, and cognitive involvement in learning activities (Fredricks, Blumenfeld, & Paris, 2004). In the context of language learning, higher levels of engagement have been consistently linked to improved achievement, greater persistence, and deeper learning (Philp & Duchesne, 2016). As such, engagement is increasingly viewed as a proximal indicator of effective learning processes. More recent work has highlighted engagement as a dynamic, multidimensional process involving learners' behavioural, cognitive, and emotional participation in classroom activities (Fredricks, Jennifer A. et al., 2004; Mercer, Sarah & Dörnyei, Zoltán, 2020).

Despite substantial research on these three constructs individually, the structural relationships among learner beliefs, motivation, and engagement remain underexplored, particularly in the context of Chinese as a Foreign Language (CFL). While previous studies have established that learner beliefs can influence motivation (Barcelos, 2015) and that motivation, in turn, affects engagement (Oga-Baldwin et al., 2017), relatively few studies have examined how these variables interact within an integrated framework. In particular, the potential mediating role of motivation in linking learner beliefs to engagement has not been sufficiently investigated.

This gap is especially evident in the Malaysian context, where the learning of Chinese as a foreign language has expanded rapidly amid broader regional and global developments in Chinese language education (Gong et al., 2020). At the policy level, the international promotion of Chinese has been closely linked to state-supported language planning and the overseas development of Confucius Institutes (Zhao & Huang, 2010), while more

recent scholarship shows that language planning has also been tied to the Belt and Road Initiative (Gao, 2020). Malaysian university students represent a unique multilingual and multicultural population whose learning experiences are shaped by diverse linguistic backgrounds and sociocultural influences. However, empirical research focusing on their psychological processes in CFL learning remains limited, and large-scale quantitative studies examining the interplay between beliefs, motivation, and engagement are still scarce. Despite these advances, most existing studies have examined these constructs in isolation, with limited attention to their integrated relationships within specific learning contexts.

To address these gaps, the present study aims to develop and test a mediation model that examines the relationships among learner beliefs, motivation, and engagement among Malaysian university students learning Chinese as a foreign language. Specifically, this study investigates whether motivation mediates the relationship between learner beliefs and learning engagement, thereby providing a more comprehensive understanding of the psychological mechanisms underlying CFL learning.

By integrating these three key constructs within a unified analytical framework, this study seeks to contribute to the growing body of research on learner psychology in SLA and to offer pedagogical insights for enhancing student motivation and engagement in CFL classrooms.

2. Literature Review

2.1 Learner Beliefs in Second Language Learning

Learner beliefs have been widely recognised as a key psychological construct shaping language learning processes. Traditionally conceptualised as relatively stable cognitive representations about language learning, recent research has reconceptualised beliefs as dynamic, context-sensitive, and socially constructed (Barcelos & Kalaja, 2011; Hu, 2021). This shift reflects a broader move in SLA toward understanding learners as active agents whose perceptions evolve through interaction with their learning environments.

Empirical studies have shown that learner beliefs influence not only strategy use but also learners' emotional responses and self-regulation. For instance, learners who perceive language learning ability as improvable are more likely to adopt mastery-oriented approaches and sustain effort over time (Kalaja et al., 2016). In contrast, maladaptive beliefs, such as viewing language aptitude as fixed, may lead to avoidance behaviours and reduced persistence (Horwitz, 1988; Lou & Noels, 2017; Lou et al., 2022). Recent work further suggests that beliefs interact with identity and emotional experiences, forming part of a broader psychological system that shapes learning trajectories (Barcelos, 2015).

In the context of Chinese as a Foreign Language (CFL), learner beliefs likewise play a crucial role. Previous research has shown that learners from non-Chinese backgrounds often perceive Chinese as a particularly difficult language, especially due to its writing system and tonal features, and such beliefs may negatively affect their confidence and sustained engagement (Everson, 2011; Zhou & Mann, 2021). This tendency has also been observed in the Malaysian context, where learners frequently report difficulties related to Chinese characters and pronunciation, which in turn shape their learning beliefs, influence their motivation, and ultimately affect their level of classroom engagement.

(Gong, Y. et al., 2020). This highlights the need to situate beliefs within a more comprehensive analytical framework.

2.2 Motivation in Second Language Learning

Motivation remains one of the most extensively studied constructs in SLA, yet contemporary research increasingly emphasises its complexity and dynamic nature. Rather than being a static trait, motivation is now understood as a fluctuating process influenced by contextual, emotional, and social factors.

Recent research has demonstrated that motivation is closely intertwined with affective variables, particularly emotions, in shaping language learning outcomes (Papi et al., 2019; Dewaele & MacIntyre, 2019). This line of research underscores the importance of conceptualising motivation as part of a broader psychological system rather than as an isolated predictor. Furthermore, motivation has been shown to play a central role in sustaining learners' engagement, particularly in classroom contexts where active participation is essential for language development (Oga-Baldwin, 2019).

In addition, process-oriented perspectives highlight that motivation operates across different temporal scales, from moment-to-moment fluctuations during tasks to longer-term developmental trajectories. These insights suggest that motivation may function as a key mechanism linking learners' internal dispositions (e.g., beliefs) to their observable behaviours (e.g., engagement).

However, empirical research examining motivation as a mediating variable within an integrated model remains limited, particularly in CFL contexts. This gap calls for further investigation into the structural relationships among learner psychology constructs.

2.3 Learner Engagement in Language Learning

Learner engagement has emerged as a central concept in educational research, reflecting a growing interest in understanding the quality of learners' participation in academic activities. In SLA, engagement is typically conceptualised as a multidimensional construct encompassing behavioural, emotional, and cognitive dimensions.

Recent research has further advanced the conceptualisation of engagement as a dynamic and situated process. For example, Engagement has been conceptualised as a dynamic and context-sensitive process involving ongoing interactions between learners and their learning environment, shaped by instructional design, task characteristics, and individual differences (Fredricks, Jennifer A. et al., 2004; Mercer, Sarah & Dörnyei, Zoltán, 2020; Hiver et al., 2021). From a process-oriented perspective, engagement is understood as the real-time integration of behavioural, cognitive, and emotional dimensions during learning activities (Fredricks et al., 2004).

Empirical studies consistently demonstrate that higher levels of engagement are associated with improved learning outcomes, greater persistence, and deeper processing of linguistic input. As such, engagement is increasingly regarded as a proximal indicator of effective learning processes.

Nevertheless, research on engagement in CFL contexts remains relatively underdeveloped. In particular, there is a lack of studies that examine engagement in

relation to other key psychological variables, such as beliefs and motivation, within a unified framework.

2.4 Relationships among Learner Beliefs, Motivation, and Engagement

The relationships among learner beliefs, motivation, and engagement have been acknowledged in prior research, yet they are often examined in a fragmented manner. Theoretically, learner beliefs can shape learners' perceptions of task value and self-efficacy, which in turn influence motivational processes. Motivation, as a driving force, then affects the extent to which learners actively engage in learning activities.

While existing studies provide evidence for pairwise relationships, such as beliefs influencing motivation and motivation predicting engagement, there remains a lack of integrative models that examine these constructs simultaneously. In particular, the mediating role of motivation in linking beliefs to engagement has not been sufficiently explored.

Recent developments in learner psychology research advocate for a more holistic and systems-oriented approach, emphasising the interconnectedness of psychological variables (Mercer & Dörnyei, 2020). Within this perspective, examining mediation mechanisms can provide deeper insights into how internal dispositions are translated into observable learning behaviours.

In the context of CFL learning, such integrative investigations are especially needed. Given the unique linguistic features of Chinese and the diverse sociocultural backgrounds of learners, the interplay among beliefs, motivation, and engagement may differ from that observed in other language learning contexts. Therefore, this study seeks to address this gap by examining the mediating role of motivation in the relationship between learner beliefs and engagement.

2.5 Theoretical Framework and Hypotheses Development

Building on the preceding literature review, this study adopts a learner psychology perspective by integrating three key constructs-learning beliefs, learning motivation, and learning engagement- into a unified analytical framework.

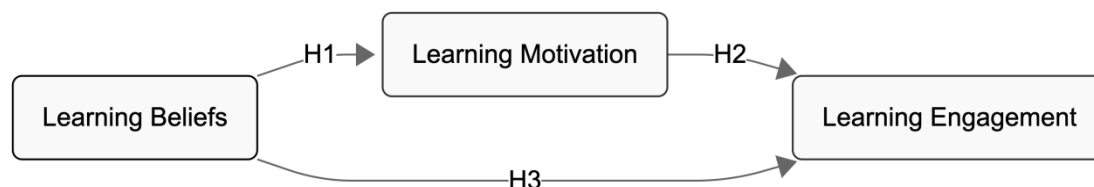
Specifically, learning beliefs, as learners' underlying perceptions about the nature of language learning and their own abilities, are assumed to influence their evaluation of learning tasks and their sense of self-efficacy. These perceptions, in turn, shape learners' motivational dispositions. Learning motivation, functioning as a driving force, is expected to directly influence learners' level of behavioural, emotional, and cognitive engagement in classroom activities. In addition, learning beliefs may also exert a direct effect on learning engagement.

Accordingly, the conceptual model of this study proposes the following relationships:

- a. Learning beliefs → Learning motivation
- b. Learning motivation → Learning engagement
- c. Learning beliefs → Learning engagement
- d. Learning beliefs → Learning motivation → Learning engagement (mediated pathway)

This model aims to examine how learning beliefs influence learning engagement both directly and indirectly through learning motivation, with particular attention to the mediating role of motivation.

Figure 1: Conceptual Model of the Relationships among Learning Beliefs, Motivation, and Engagement



2.6 Research Questions

Based on the proposed conceptual model, the present study addresses the following research questions:

RQ1 What are the levels of learning beliefs, learning motivation, and learning engagement among Malaysian university students learning Chinese as a foreign language?

RQ2 Are there significant relationships among learning beliefs, learning motivation, and learning engagement?

RQ3 Do learning beliefs significantly predict learning motivation and learning engagement?

RQ4 Does learning motivation mediate the relationship between learning beliefs and learning engagement?

2.7 Hypotheses Development

Drawing on relevant theoretical and empirical studies, the following hypotheses are proposed:

H1 Learning beliefs significantly and positively predict learning motivation.

H2 Learning motivation significantly and positively predicts learning engagement.

H3 Learning beliefs significantly and positively predict learning engagement.

H4 Learning motivation mediates the relationship between learning beliefs and learning engagement.

3. Research Methods

This study adopts a quantitative research design to examine the relationships among learning beliefs, learning motivation, and learning engagement among Malaysian university students learning Chinese as a foreign language (CFL). A cross-sectional survey approach was employed to collect data at a single point in time.

Given the study's objective to test both direct and indirect relationships among variables, a mediation model was specified, with learning motivation as the mediator between learning beliefs and learning engagement. This design allows for the examination of both predictive relationships and underlying psychological mechanisms.

3.1 Participants

The participants of this study consisted of 208 undergraduate students enrolled in Chinese as a foreign language course at Malaysian universities. All participants were non-native speakers of Chinese and represented diverse linguistic and educational backgrounds.

Participants were selected using convenience sampling, as access to intact classes was determined by institutional and scheduling constraints. Although this sampling method may limit generalisability, it is widely used in educational research contexts and is appropriate for exploratory model testing.

Demographic information collected included gender, year of study, prior experience in learning Chinese, and self-reported proficiency level. These variables were used to provide a descriptive profile of the sample.

3.2 Instrumentation

A structured questionnaire was employed as the primary instrument for data collection in this study, aiming to measure three key constructs: learning beliefs, learning motivation, and learning engagement. The questionnaire consisted of three sections corresponding to these constructs. All items were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

The learning beliefs scale was adapted from established research on language learning beliefs (e.g., Horwitz, 1987) and focused on learners' perceptions of language difficulty, learning ability, and learning strategies. The learning motivation scale was developed based on widely recognised frameworks in second language acquisition (e.g., Dörnyei, 2005), capturing both intrinsic and extrinsic dimensions of motivation. The learning engagement scale was constructed using a multidimensional framework encompassing behavioural, emotional, and cognitive engagement, following established models in educational research (e.g., Fredricks et al., 2004).

All questionnaire items were carefully adapted to fit the CFL learning context to ensure contextual relevance and clarity. Prior to the main data collection, the instrument underwent expert review to establish content validity, followed by a pilot test with a small group of students to assess clarity and internal consistency. Based on the pilot results, minor revisions were made to improve item wording and eliminate ambiguity, thereby enhancing the overall reliability and validity of the instrument.

The questionnaire was administered in English, with additional clarification provided when necessary to ensure participants' accurate understanding.

3.3 Data Collection Procedures

Data collection was conducted during regular class sessions with the permission of course instructors. Participants were informed of the purpose of the study and assured that their responses would remain anonymous and confidential.

Participation was voluntary, and informed consent was obtained from all participants prior to completing the questionnaire. The survey was administered either in paper format or online, depending on the classroom setting.

3.4 Data Analysis

Data were analyzed using SPSS (Version 30). The analysis proceeded in several stages. First, descriptive statistics were calculated to examine the overall levels of learning beliefs, motivation, and engagement. Second, Cronbach's alpha coefficients were calculated to assess the internal consistency of each scale, with $\alpha \geq 0.70$ considered acceptable. Third, Pearson correlation coefficients were computed to examine the relationships among the variables. Fourth, multiple regression analyses were conducted to test the predictive relationships among learning beliefs, motivation, and engagement. Finally, mediation analysis was performed using a bootstrapping approach with 5,000 resamples to test the indirect effect of learning beliefs on learning engagement through learning motivation.

3.5 Ethical Considerations

This study was conducted in accordance with established ethical guidelines for research involving human participants. Ethical approval was obtained from the Institutional Ethics Committee of Universiti Teknologi MARA.

All participants were informed about the purpose of the study, and their participation was voluntary. Informed consent was obtained before data collection, and anonymity and confidentiality were strictly maintained throughout the research process.

4. Results

4.1 Descriptive Statistics

To examine the overall levels of learning beliefs, learning motivation, and learning engagement among the participants, descriptive statistical analyses were conducted, and the results are presented in Table 1.

Table 1: Descriptive Statistics (N = 208)

Items	Mean	Std. Deviation
BEL	3.5416	.4404
MOT	3.7900	.6205
ENG	3.6121	.7071

The results indicate that the valid sample size for all variables was 208 (Valid N = 208), suggesting good data completeness. Specifically, the mean score for learning beliefs was $M = 3.5416$ ($SD = 0.4404$), for learning motivation was $M = 3.7900$ ($SD = 0.6205$), and for learning engagement was $M = 3.6121$ ($SD = 0.7071$).

Overall, the mean values of all three variables were above the midpoint of the scale (3.00), indicating that the participants generally held positive learning beliefs, demonstrated relatively high levels of motivation, and exhibited moderately high engagement in learning. Among the three variables, learning motivation had the highest mean score ($M = 3.7900$), suggesting that participants showed strong willingness and drive in learning Chinese.

In terms of variability, learning beliefs showed a relatively small standard deviation ($SD = 0.4404$), indicating that participants' responses were more consistent and that individual differences were relatively limited. In contrast, learning engagement exhibited a larger standard deviation ($SD = 0.7071$), suggesting greater variability in learners' levels of participation and involvement in classroom activities. The standard deviation for learning motivation ($SD = 0.6205$) was at a moderate level, indicating that its variability fell between that of learning beliefs and learning engagement.

Overall, the descriptive statistics suggest that Malaysian university students demonstrate generally positive psychological dispositions toward learning Chinese as a foreign language, although there remains a certain degree of individual variation in learning engagement. These findings provide a foundation for subsequent analyses of the relationships among the variables.

4.2 Reliability Analysis

In this study, Cronbach's alpha coefficients were used to assess the internal consistency of the scales, and the results are presented in Table 2.

Table 2: Reliability Statistics

Items	Cronbach's Alpha	N of Items
BEL	.839	20
MOT	.912	12
ENG	.963	16

The findings indicate that the Cronbach's alpha coefficient for the learning beliefs scale (BEL) was 0.839 (20 items), for the learning motivation scale (MOT) was 0.912 (12 items), and for the learning engagement scale (ENG) was 0.963 (16 items).

According to commonly accepted criteria ($\alpha \geq 0.70$ indicating acceptable reliability, $\alpha \geq 0.80$ good reliability, and $\alpha \geq 0.90$ excellent reliability), all three scales in this study demonstrated satisfactory internal consistency. Specifically, the learning beliefs scale showed good reliability, the learning motivation scale exhibited excellent reliability, and the learning engagement scale demonstrated exceptionally high internal consistency, with a Cronbach's alpha of 0.963.

Overall, all scales exhibited high reliability, indicating that the measurement instruments were stable and internally consistent within the present sample, and thus suitable for subsequent correlation, regression, and mediation analyses. However, it is worth noting that the very high alpha value of the learning engagement scale ($\alpha > 0.95$), while indicating excellent internal consistency, may also suggest potential item redundancy. Future research may consider refining the scale to improve its construct efficiency.

4.3 Correlation Analysis

Pearson correlation analysis was conducted to examine the relationships among learning beliefs, learning motivation, and learning engagement, and the results are presented in Table 3.

Table 3: Pearson Correlations among Learning Beliefs, Motivation, and Engagement (N = 208)

Variable		BEL	MOT	ENG
BEL	Pearson Correlation	1	.656**	.667**
	Sig. (2-tailed)		<.001	<.001
MOT	Pearson Correlation	.656**	1	.776**
	Sig. (2-tailed)	<.001		<.001
ENG	Pearson Correlation	.667**	.776**	1
	Sig. (2-tailed)	<.001	<.001	

The results indicate that learning beliefs were significantly and positively correlated with learning motivation ($r = 0.656$, $p < 0.001$), suggesting that more positive learning beliefs are associated with higher levels of motivation. The strength of this relationship can be considered moderately strong.

The correlation between learning motivation and learning engagement was $r = 0.776$ ($p < 0.001$), indicating a strong positive relationship. This finding suggests that learning motivation plays a critical role in promoting engagement, as learners with higher motivation tend to demonstrate greater behavioural, emotional, and cognitive involvement in classroom activities.

In addition, learning beliefs were also significantly and positively correlated with learning engagement ($r = 0.667$, $p < 0.001$), reflecting a moderately strong relationship. This suggests that learning beliefs may influence engagement not only indirectly through motivation but also directly.

Overall, all three variables were significantly and positively correlated ($p < 0.001$), providing support for the proposed theoretical model. Furthermore, all correlation coefficients were below 0.80, indicating that there were no serious multicollinearity issues among the variables, thereby justifying the use of subsequent regression and mediation analyses.

4.4 Regression Analysis

To examine the predictive relationships among learning beliefs, learning motivation, and learning engagement (H1–H3), a series of linear regression analyses were conducted, and the results are presented in Table 4.

Table 4: Regression Results for Hypotheses H1–H3

Hypothesis	Dependent Variable	Predictor	B	SE	β	t	p
H1	Learning Motivation	Learning Beliefs	0.924	.074	.656	12.469	<.001
H2	Learning Engagement	Learning Motivation	.884	.050	.776	17.652	<.001
H3	Learning Engagement	Learning Beliefs	1.071	.083	.667	12.859	<.001

Note: B = unstandardized coefficient; SE = standard error; β = standardized coefficient. All reported coefficients are statistically significant at $p < .001$.

To begin with, learning motivation was regressed on learning beliefs. The results show that learning beliefs significantly and positively predict learning motivation ($\beta = 0.656$, $t = 12.469$, $p < 0.001$), indicating that learners with more positive beliefs tend to report higher levels of motivation. Therefore, H1 is supported.

Next, learning engagement was regressed on learning motivation. The findings indicate that learning motivation is a significant positive predictor of learning engagement ($\beta = 0.776$, $t = 17.652$, $p < 0.001$), with a relatively strong effect size. This suggests that motivation plays an important role in promoting learners' engagement. Thus, H2 is supported.

Finally, learning engagement was regressed on learning beliefs. The results show that learning beliefs also significantly and positively predict learning engagement ($\beta = 0.667$, $t = 12.859$, $p < 0.001$), suggesting that beliefs may influence engagement not only indirectly through motivation but also directly. Therefore, H3 is supported.

Overall, both learning beliefs and learning motivation significantly predict learning engagement, with learning motivation showing a stronger effect ($\beta = 0.776$). This suggests that motivation plays a more direct and central role in learners' psychological processes, providing a basis for the subsequent mediation analysis.

4.5 Mediation Analysis

To further examine the mediating role of learning motivation in the relationship between learning beliefs and learning engagement (H4), a bootstrapping approach was employed to test the mediation effect. The results are presented in Table 5. The findings indicate that the indirect effect of learning beliefs on learning engagement through learning motivation was statistically significant (Indirect effect = 0.623, SE = 0.0759, $\beta = 0.388$, $p < 0.001$). The 95% confidence interval ranged from 0.474 to 0.772 and did not include zero, confirming the significance of the mediation effect.

In terms of path coefficients, learning beliefs significantly and positively predicted learning motivation ($\beta = 0.655$, $p < 0.001$), while learning motivation significantly and positively predicted learning engagement ($\beta = 0.592$, $p < 0.001$), further supporting the validity of the mediation pathway.

Table 5: Bootstrap Estimates of Direct, Indirect, and Total Effects

Type	Effect	Estimate	SE	95% C.I. (a)		β	z	p
				Lower	Upper			
Indirect	Beliefs⇒Motivation⇒Engagement	0.623	0.0759	0.474	0.772	0.388	8.21	<.001
Component	Beliefs⇒Motivation	0.923	0.0736	0.779	1.067	0.655	12.54	<.001
	Motivation⇒ Engagement	0.675	0.0621	0.553	0.797	0.592	10.86	<.001
Direct	Beliefs⇒ Engagement	0.449	0.0875	0.277	0.620	0.279	5.13	<.001
Total	Beliefs⇒ Engagement	1.072	0.0829	0.909	1.234	0.667	12.93	<.001

Note. Confidence intervals computed with method: Standard (Delta method)

Note. Betas are completely standardized effect sizes

After controlling for learning motivation, the direct effect of learning beliefs on learning engagement remained statistically significant (Direct effect = 0.449, SE = 0.0875, β = 0.279, $p < 0.001$). This indicates that learning beliefs influence learning engagement not only indirectly through learning motivation but also directly.

In addition, the total effect of learning beliefs on learning engagement was found to be significant (Total effect = 1.072, SE = 0.0829, β = 0.667, $p < 0.001$). In terms of effect size, the indirect effect (0.623) accounted for a substantial proportion of the total effect (1.072), suggesting that learning motivation plays a crucial mediating role in this relationship, serving as an important psychological mechanism that translates learning beliefs into learning engagement.

Taken together, these results indicate that learning motivation partially mediates the relationship between learning beliefs and learning engagement. Therefore, H4 is supported.

5. Discussion

The present study examined the relationships among learning beliefs, motivation, and engagement in the context of Chinese as a Foreign Language (CFL), with particular attention to the mediating role of motivation. Overall, the findings provide strong support for the proposed model and offer valuable insights into the psychological mechanisms underlying CFL learning among Malaysian university students.

The results show that learning beliefs significantly and positively predict learning motivation (H1). This finding is consistent with previous research suggesting that learners' perceptions of language learning shape their motivational orientations (Barcelos, 2015). In the present study, students who held more positive beliefs about learning Chinese—such as viewing it as manageable or worthwhile—tended to report higher levels of motivation. This supports the view that beliefs function as a foundational cognitive component influencing learners' willingness to invest effort in language learning. In the CFL context, where Chinese is often perceived as a difficult language, fostering more adaptive beliefs may therefore be particularly important for sustaining motivation.

Learning motivation was also found to be a strong predictor of learning engagement (H2), with the highest standardized coefficient among all examined paths. This finding is in line with prior studies that highlight motivation as a key driver of learners' active participation in classroom activities (Oga-Baldwin et al., 2017). The strength of this relationship suggests that motivated learners are more likely to engage behaviourally, emotionally, and cognitively in learning tasks. It also underscores the role of motivation in translating internal dispositions into observable learning behaviours.

In addition, learning beliefs directly predicted learning engagement (H3). This suggests that beliefs not only influence engagement indirectly through motivation but may also exert a more immediate effect on learners' classroom participation. One possible explanation is that learners who perceive language learning as meaningful or attainable

are more inclined to engage actively, regardless of their motivational level. This finding extends previous research by showing that beliefs can operate as both distal and proximal predictors of learning behaviour.

The mediation analysis further revealed that learning motivation partially mediates the relationship between learning beliefs and learning engagement (H4). Although the direct effect of beliefs on engagement remained significant, it was reduced after accounting for motivation, and the indirect effect was statistically significant. These findings indicate that learning beliefs influence engagement both directly and indirectly through motivation, supporting the dual pathways proposed in the conceptual model.

From a theoretical perspective, the findings support a more integrated view of learner psychology, in which cognitive (beliefs), affective (motivation), and behavioural (engagement) components are dynamically interconnected (Mercer & Dörnyei, 2020). They also contribute to the growing body of research advocating for mediation-based models to better capture the complexity of language learning processes.

From a contextual perspective, this study provides empirical evidence from the Malaysian CFL setting, where learners often face challenges related to linguistic distance and cultural differences. The finding that motivation serves as a key mediating mechanism suggests that addressing learners' beliefs alone may not be sufficient; rather, pedagogical efforts should also focus on enhancing motivation to promote sustained engagement.

Overall, the findings highlight the central role of motivation as a bridge between learners' beliefs and their engagement in language learning. By demonstrating both direct and indirect pathways, this study offers a more nuanced understanding of how psychological factors interact to shape learning outcomes in CFL contexts.

6. Conclusion

This study examined the relationships among learning beliefs, learning motivation, and learning engagement in the context of Chinese as a Foreign Language (CFL) among Malaysian university students, with a particular focus on the mediating role of motivation.

The findings indicate that learning beliefs significantly predict both learning motivation and learning engagement. Among the variables examined, learning motivation emerged as the strongest predictor of engagement, highlighting its central role in shaping learners' active participation. Furthermore, the results revealed that learning motivation partially mediates the relationship between learning beliefs and learning engagement, suggesting that beliefs influence engagement both directly and indirectly through motivational processes.

From a theoretical perspective, this study contributes to the field of second language acquisition by advancing an integrated model of learner psychology, demonstrating the interconnected roles of cognitive, affective, and behavioural factors. In particular, the identification of motivation as a mediating mechanism provides a more nuanced understanding of how internal beliefs are translated into observable learning behaviours.

From a pedagogical perspective, the findings highlight the importance of fostering positive learning beliefs and enhancing students' motivation in CFL classrooms. Teachers are encouraged to design instructional practices that promote learners' sense of competence, relevance, and engagement, particularly in contexts where learners may perceive Chinese as a challenging language. Addressing learners' difficulties in a supportive and meaningful way may help reshape their beliefs and sustain their engagement.

Despite its contributions, this study has several limitations. First, the cross-sectional design limits the ability to draw causal inferences. Second, the use of self-reported data may introduce response bias. Third, the reliance on convenience sampling may affect the generalisability of the findings.

Future research is encouraged to adopt longitudinal designs, incorporate mixed methods approaches, and explore additional contextual variables, such as classroom environment, teacher support, or cultural factors, to further enrich the understanding of learner psychology in CFL contexts.

Ethics Approval and Consent to Participate

Ethical approval was obtained from the Institutional Ethics Committee of Universiti Teknologi MARA. Participation was voluntary, informed consent was obtained before data collection, and participants' anonymity and confidentiality were maintained.

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Conflict of Interest

The authors declare there are no conflicts of interest.

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