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Integrating Cultural Intelligence, Language Proficiency, and Emotional Intelligence in Explaining Cross-Cultural Adaptation: The Mediating Role of Psychological Adaptation among International Students in Jiangxi Universities

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ABSTRACT
In the context of increasingly globalized educational and professional environments, understanding and promoting the cross-cultural adaptation (CCA) of international students has become a critical issue in both research and practice. This study investigates the structural relationships between individual competency factors such as cultural intelligence (CI), emotional intelligence (EI), and language proficiency (LP) and cross-cultural adaptation (CCA), with psychological adaptation (PA) serving as a central mediating variable. Drawing on Acculturation Cycle Theory and Social Learning Theory, a model was developed and tested using PLS SEM among international student populations. The results indicate that CI, LP, and EI significantly enhance PA, which in turn positively influences CCA, confirming the partial mediating role of PA. Among these predictors, CI was identified as the strongest factor influencing both PA and CCA. The model explained 44.3% of the variance in PA and 46.6% of the variance in CCA, demonstrating moderate explanatory power. These findings underscore the importance of psychological resilience alongside individual competencies in achieving successful cross-cultural adjustment and suggest that training programs should prioritize the development of cultural intelligence and provide systematic psychological support to improve international students' adaptation outcomes...
Keywords: Cultural Intelligence, Language Proficiency, Emotional Intelligence, Psychological Adaptation, Cross-Cultural Adaptation, International Students.

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1. INTRODUCTION:

In recent years, the movement of students across national borders has become a defining feature of global higher education. By 2020, more than six million students were studying outside their home countries, reflecting the growing demand for intercultural learning and international academic experience (Wen & Wang, 2022). China has become one of the major destinations in this trend. With its expanding economy and strengthened higher education landscape, the country now hosts over half a million international students and continues to attract learners from a wide range of developing regions (Yin & Zong, 2022; Duan et al., 2021). Jiangxi Province, though not among China's most internationalized educational hubs, has gradually drawn more students due to its diverse academic programs and distinctive cultural environment.

The increasing numbers, however, are accompanied by persistent difficulties. Many international students encounter obstacles soon after arrival, most commonly related to language competence, unfamiliar teaching practices, and different social expectations. Surveys indicate that a large proportion of students struggle with these issues during the first semester (Sun et al., 2024). Cross-cultural adjustment, as several scholars have argued, involves far more than academic adaptation; it demands changes in thinking patterns, behaviour, and social identity, and these processes often weigh heavily on students' psychological well-being (Kai Lin, 2024). Feelings of isolation or disorientation are not unusual, especially when language barriers and cultural distance accumulate (Cao et al., 2022; Yang, 2022).

Language remains at the heart of many of these challenges. Although some courses are offered in English, day-to-day communication and participation in academic activities generally require Chinese, and students with limited proficiency often find themselves excluded from ordinary interactions (Wu Ni, 2024). The situation becomes more complicated in Jiangxi, where regional dialects occasionally create an additional layer of difficulty for newcomers (Gao & Hua, 2021). Alongside language, students also face an educational culture that may differ significantly from what they previously

experienced. Practices such as teacher-centered instruction, strong emphasis on memorization, and hierarchical classroom relations can be unfamiliar and, at times, emotionally taxing (Fan et al., 2024). Everyday issues such as adapting to local food, managing homesickness, and learning the rhythms of campus life further shape their psychological adjustment (Zhou et al., 2024).

Universities in China have begun responding to these concerns through various forms of intercultural training, academic preparation, and counseling support (Xu, 2024). Yet gaps remain, particularly in regions where internationalization is still developing. In Jiangxi, the availability and quality of language support, cultural orientation, and psychological services are often uneven (Xue, 2024). These shortcomings matter because international students' academic progress and long-term goals are closely tied to how well they settle into the new environment (Ding & Xin, 2024).

Scholars have pointed out that cultural intelligence, emotional competence, and language ability play influential roles in how students navigate a foreign cultural landscape (Manyeruke & Tansel, 2024). What remains less examined, particularly in the context of China's emerging educational regions, is how these capacities interact and how they translate into actual adaptation experiences through the psychological dimension.

2. Literature Review

The effect of Cultural Intelligence(CI), Language Proficiency(LP) and Emotional Intelligence(EI) on Cross-Cultural Adaptation(CCA)

The relationship between CI and CCA

Empirical evidence consistently supports a direct positive relationship between an individual's level of CI and their success in achieving CCA. Researchers argue that high CI facilitates the cognitive, motivational, and behavioral competencies required for effective intercultural interaction. For instance, Waseem and Hasan (2020) posit that CI fosters effective cross-cultural interactions, enabling smoother navigation through cultural differences. Similarly, D'Souza (2022) established the strong influence of CQ on successful adaptation by concluding that expatriates possessing greater Cultural Intelligence demonstrated superior adjustment to new cultural settings. This body of work confirms that CI is a foundational capability that prepares individuals for the demands of a non-native environment.

Chu & Zhu (2023) showed that international students' adaptation in China is positively impacted by Cultural Intelligence, with psychological resilience as a mediator. In the same vein, Yang et al. (2024) illustrated how self-efficacy links life satisfaction with Cultural Intelligence among Chinese students in South Korea, highlighting the role of psychological mediators in adaptation.

The relationship between LP and CCA

According to research, LP is important to social and academic integration. Zhou and Zeng (2021) reported that LP was one of the most important predictors of the socio-cultura PA of international students in China. The mastery of certain social skills enabled students to interact with classmates, partake in academic work, and minimize feelings of loneliness. Also, a common English language has been shown to improve communication effectiveness. Guo and Chueachainat (2024) showed that LP, especially in the CCA language, had a favorable effect on CCA because it aided communication. Their research with international students in Malaysia showed that LP to the CCA was associated with active communication and successful adaptation.

LP works mediatingly at those levels too. In their study, Bethel et al. (2020) LP influences host national connectedness and PA by demonstrating that students proficient in the host language were better able to relate locally which enhanced their psychological well-being and life satisfaction. Besides, cultural and linguistic immersion, elements of the culture, appear to increase LP and general adaptation. But there is still a major challenge to CCA which is language. Cao et al. (2024) pointed out that foreign students with low levels of the host country's language faced challenges at both social integration and cultural adaptation levels. This analysis makes clear how LP is crucial for overcoming many barriers to adaptation and emphasizes the importance of alleviating language constraints for successful CCA.

The relationship between EI and CCA

Research underscores EI's function in bolstering an individual's capacity to cope with the inherent challenges of cultural transition. Wang and Chiu (2024) reported that EI, working alongside psychological resiliency, is essential for managing stress, navigating cultural differences, and building relationships within new settings. Their findings suggest that EI equips individuals with the necessary internal resources to effectively address CCA challenges. This is echoed by Kai Liao et al. (2021), whose study of expatriates in Taiwan established that higher EI correlates directly with improved cultural adaptability, which subsequently drives more successful social and occupational integration.

EI's impact on CCA is also strongly evident through its effect on communication and interpersonal dynamics. Alifuddin and Widodo (2022) found that EI significantly influences interpersonal communication, a crucial element for successful CCA. Their work with Indonesian teachers demonstrated that individuals with high EI are better equipped to interact effectively with people from diverse cultural backgrounds, which is indispensable for successful adaptation. Furthermore, Gebregergis et al. (2024) noted a positive relationship between EI and Cultural Intelligence (CQ), identifying EI as crucial for the transition to new environments, enhancing interpersonal relations, and facilitating the process of cultural change for international students.

In professional settings, EI's influence on adaptation is particularly pronounced. Abdyrakhmanova and Poór

(2023) suggest that EI exerts a significant influence on CCA, job performance, and adjustment to a new occupational culture among employed populations. This is further contextualized by the work of Pathak and Muralidharan (2020), who proposed a Culture-Specific Emotional Intelligence (CSEI) framework. This concept addresses how emotional intelligence operates in cross-cultural situations by focusing on culturally bound emotions and expressions that require adaptation. This conceptualization moves beyond general EI to account for the necessary cultural nuance in emotional processing during CCA.

The effect of Cultural Intelligence(CI), Language Proficiency(LP) and Emotional Intelligence(EI) on on Psychological Adaptation (PA)

The relationship between CI and PA

Research consistently establishes Cultural Intelligence (CI) as a crucial determinant of successful Psychological Adaptation (PA) across diverse cultural settings. CI, defined as the capability to function effectively in culturally heterogeneous situations, is strongly correlated with enhanced emotional regulation, stress mitigation, and overall psychological well-being in foreign environments.

Studies involving both expatriates and international students frequently demonstrate this correlation. D'souza et al. (2023) observed that expatriates reporting high CI levels exhibited better psychological adjustment in host countries, suggesting CI's utility in coping with cultural differences and managing psychological stress. Similarly, Rana et al. (2020), studying foreign students in India, confirmed that CI, particularly its behavioral dimension, linked to greater PA, which in turn supported superior academic and social adjustment. Extending beyond academic contexts, Alifuddin and Widodo (2022) found that employees with high CI within multinational corporations reported better psychological adjustment alongside improved work performance. Furthermore, Gebregergis et al. (2024) noted that higher CI facilitated sociorelational interactions among international students, and this, coupled with better psychological adjustment, contributed to enhanced overall well-being.

The relationship between LP and PA

Research consistently demonstrates that Language Proficiency (LP) significantly contributes to improved Psychological Adaptation (PA) and overall well-being across diverse populations.

The fundamental relationship between higher LP and PA is well-validated. For instance, Cavicchiolo et al. (2020) found that LP correlated with better psychological health, aiding stress reduction and adaptation among immigrant children and adolescents. Similarly, Ivanova and Sidorova (2020) noted positive correlations between bilingualism/multilingualism and socio-psychological adaptation among students, asserting that the ability to speak multiple languages facilitated quicker integration into new cultural environments.

Furthermore, LP has been linked to cognitive and mental health outcomes. Jang et al. (2022), assessing older immigrants in the USA, determined that linguistic integration, particularly English proficiency, positively related to better cognitive functioning and psychological well-being. Conversely, Montemitro et al. (2021) highlighted the adverse effects of low LP among migrants, linking poor language skills to heightened anxiety, depression, and psychiatric comorbidity. This underscores that robust LP likely reduces psychiatric symptoms and enhances a sense of PA. The benefits extend to coping mechanisms; Cavicchiolo et al. (2020) indicated that certain language proficiencies were directly related to better coping strategies and emotional adjustment. Ewa Krautz (2024) further verifies this, arguing that bilingual individuals with proficiency in both native and second languages tend to exhibit better mental health and PA, solidifying LP as a key factor contributing to successful adaptation in novel cultural and social contexts.

The relationship between EI and PA

Integrating emotional intelligence (EI) in numerous scenarios contemplates favorable results on physical activity (PA). With Wang & Chiu's (2024) research, a foreign academic's cultural adjustment requires robust psychological resilience which EI greatly improves. EI was found to have a mediating effect in enhancing adaptive performance and psychological well-being in academic contexts. Ujire (2020) also demonstrated the predictive power EI had on the PA of school-aged children, granting them the ability to manage their emotions and overcome obstacles in a schooling environment. Furthermore, Johennesse & Pressley (1998) discovered that better workplace-adjustment due to higher EI led to improved employee performance and emotional wellbeing. From this, the literature considers that EI has a significant and positive impact with PA. EI leads to better emotional regulation, resilience, social integration and professional adaptability; collectively enhancing PA in different aspects of life.

Psychological Adaptation(PA) and Cross-Cultural Adaptation(CCA).

A range of literature indicates the utility of Psychological Adaptation (PA) throughout the cross-cultural adjustment process. Studies consistently show that PA is a critical factor influencing an individual's success in social, academic, and professional integration within a new culture.

Research examining international students underscores PA's foundational role. Bethel et al. (2020) found that emotion regulation and coping models, key components of PA, were significant enablers of Cross-Cultural Adaptation (CCA), particularly impacting academic success and social integration. Liang et al. (2023) claimed that PA is highly relevant to the development of cultural competency, asserting that individuals with strong psychological adjustment are better equipped to engage in proficient cross-cultural relations. Furthermore, Mishu et

al. (2023) reported that the success of cross-cultural training programs was often attributable to participants' PA levels, noting that those who were emotionally more resilient and adaptable mastered new cultures more readily.

The influence of PA extends to diverse professional and social domains, impacting overall cross-cultural competence. Ye and Dong (2021) studied the effect of PA on cross-cultural competence among businesspeople, concluding that higher PA was associated with greater entrepreneurial achievement in multinational contexts. Similarly, Heim and Weise (2021) found that psychologically adapted refugees coped better with cultural stressors and successfully integrated into their new environments, demonstrating PA's importance for the success of cultural interventions. Additionally, Bethel et al. (2020) highlighted the role of host national connectedness as a moderator of the relationship between PA and cross-cultural adjustment, showing that students with strong identification with the host nation reported higher levels of PA and subsequently achieved higher levels of CCA.

3. Theoretical Foundation and Research Framework

Acculturation Cycle Theory

The Acculturation Cycle Theory, originally developed by Berry (2005), focuses on the changes individuals experience when they come into contact with a new cultural context. Initially studying immigrants and refugees, Berry later broadened the scope to include other populations, such as international students. Berry emphasizes that acculturation encompasses the most significant changes an individual undergoes in a new culture. He proposed four distinct acculturation strategies: assimilation, where an individual surrenders their native culture for the new one; separation, where the native culture is maintained while rejecting the new culture; integration, where the native culture is preserved alongside the new one; and marginalization, which involves the denial of both cultures, often leading to social isolation (Berry, 2017). In the context of CCA, this theory accounts for differences in adaptation outcomes relative to factors like cultural differences (CD) and social support (SS), which is particularly crucial for international students. Integration is often considered the most easily achieved strategy because it involves the person interacting with the host culture while maintaining their identity, which provides the context for smoother adaptation. The model framework implicitly aligns with the outcome variable, CCA, as adaptation is the central phenomenon described by this theory.

Social Learning Theory

The Social Learning Theory, formulated by Albert Bandura, provides a cognitive framework for understanding how learning occurs in a social context through observation and modeling. Bandura's perspective shifted from behaviorist to cognitive, viewing learning as the acquisition of skills through observing others, especially through interactions with significant individuals (Bandura & Walters, 1977). A core element of this theory is self-efficacy, which is an individual's belief in their capability to perform and succeed in a given task or activity. In cross-cultural environments, individuals tend to observe and emulate the prevailing cultural practices, which facilitates their adjustment. The theory investigates the role of culture in learning and proposes that cultural contact frequency (CCF) is an important moderator. International students are likely to adapt to new cultures by learning the customs and languages of the host country, especially if they receive greater support from the host culture (Bandura & Walters, 1977). Social Learning Theory also describes the impacts of peer interactions within social support (SS) systems on adaptation, as peers provide social models and feedback (Bandura & Hall, 2018). This theory supports the inclusion of CI (which involves behavioral and observational learning components), EI (linked to self-efficacy and social modeling), and LP (a skill acquired through learning and modeling) in the model, as these factors contribute to the individual's capacity to observe, imitate, and ultimately succeed in the new cultural environment.

Framework Integration

Acculturation Cycle Theory establishes the ultimate goal and provides context for the diverse strategies and outcomes of cultural transition. Social Learning Theory, conversely, explains the mechanisms through which adaptation skills (CI, LP, EI) are acquired and translated into effective psychological and behavioral adjustment. Specifically, the framework posits that individual attributes (CI, LP, EI) facilitate observational learning and confidence (self-efficacy), leading to improved PA (coping, stress reduction) and ultimately culminating in successful CCA. This dual theoretical lens ensures the study addresses both the overall process of cultural adjustment and the specific learning and psychological factors that drive it.

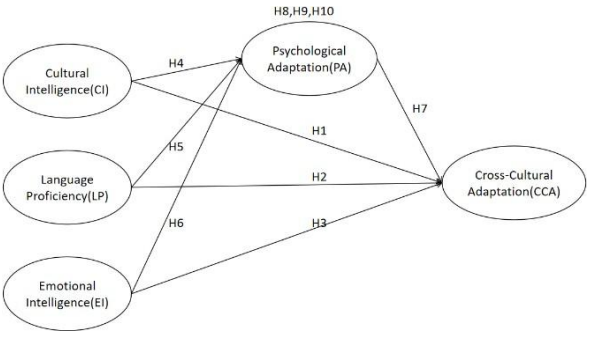


Figure 1: Conceptual Framework (Source by author)

Research Hypothesis

I. Direct Effects Hypotheses (Paths H1, H2, H3)

These hypotheses propose direct relationships between the exogenous variables and the dependent variable:

H1: Cultural Intelligence (CI) has a significant positive effect on Cross-Cultural Adaptation (CCA).

H2: Language Proficiency (LP) has a significant positive effect on Cross-Cultural Adaptation (CCA).

H3: Emotional Intelligence (EI) has a significant positive effect on Cross-Cultural Adaptation (CCA).

II. Psychological Adaptation Path Hypotheses (Paths H4, H5, H6, H7)

These hypotheses establish the direct paths to and from the mediating variable, Psychological Adaptation (PA):

H4: Cultural Intelligence (CI) has a significant positive effect on Psychological Adaptation (PA).

H5: Language Proficiency (LP) has a significant positive effect on Psychological Adaptation (PA).

H6: Emotional Intelligence (EI) has a significant positive effect on Psychological Adaptation (PA).

H7: Psychological Adaptation (PA) has a significant positive effect on Cross-Cultural Adaptation (CCA).

III. Mediation Hypotheses (Paths H8, H9, H10)

These hypotheses propose that Psychological Adaptation (PA) serves as a mediator in the relationships between the independent variables and the dependent variable:

H8: Psychological Adaptation (PA) mediates the relationship between Cultural Intelligence (CI) and Cross-Cultural Adaptation (CCA).

H9: Psychological Adaptation (PA) mediates the relationship between Language Proficiency (LP) and Cross-Cultural Adaptation (CCA).

H10: Psychological Adaptation (PA) mediates the relationship between Emotional Intelligence (EI) and Cross-Cultural Adaptation (CCA).

4. Methodology

This study takes international students currently studying in colleges and universities in Jiangxi Province as the survey subjects. The sampling frame on which the research is based is derived from the list of registered students provided by the international student management departments of various universities. The research team assigned a random number to each student on the list and used a random number program to draw samples to avoid bias caused by human selection. After being fully informed of the research purpose and content, the respondents participated voluntarily and filled out the questionnaire. Ultimately, a total of 372 valid questionnaires were obtained as the basis for data analysis.

Instrument Development

The development process included gathering items from reputable sources including Van Dyne et al. (2015) for CI and Hasanudin & Fitrianingsih (2018) for LP alongside many other established scales which were proven to be reliable and valid from previous research. These items were contextualized for this research and subsequently modified to ensure clarity, relevance, and cultural sensitivity. This will make sure that the instrument did not bias or misinterpret the intended variables.

Table1: Measuring Items

Constructs	No. Of Items	Sources
CI	20	Van Dyne et al. (2015)
LP	10	Hasanudin & Fitrianingsih (2018)
EI	10	(Davies et al., 2010)
PA	20	(Biesecker et al., 2013)
CCA	23	(Peng & Wu, 2019)

Data Analysis Process

Data analysis mainly employs SPSS and SmartPLS tools. First,, the Cronbach's α coefficients of each construct were calculated to test the internal consistency. The Structural Equation Model (SEM-PLS) is used to test the path relationship between constructs, the prediction effect and the overall fit of the model.

5. Results

5.1. Demographic Profile

Based on the sample characteristics, this study collected 372 valid questionnaires, and the overall distribution is relatively balanced, reflecting the basic profile of international students in Jiangxi's higher education institutions. Male respondents account for 58.9%, slightly higher than females at 41.1%. The majority are between 23 and 26 years old (46.8%), indicating that the sample is mainly composed of young adults. In terms of education level, most respondents are in their third or fourth year of undergraduate study or enrolled in master's programs, suggesting that many have spent a considerable period studying in China and have accumulated relevant academic experience. The fields of study are diverse, with Humanities and Social Sciences (34.9%) and Science and Engineering (35.8%) forming the two largest groups, followed by Medicine and Health Sciences (18.8%). Regarding length of stay, over one-third of the students have lived in China for 2–3 years (36.0%), meaning a substantial portion of the sample is already familiar with the local environment. Although 87.1% had no prior cross-cultural experience before coming to China, 77.7% received Chinese language training, suggesting limited cross-cultural exposure but relatively strong engagement in language preparation. These characteristics provide important context for examining their cross-cultural adaptation in the present study.

Table 2: Demographic Profile of Respondents

Variable	Category	Frequency	Percent (%)
Gender	Male	219	58.9
	Female	153	41.1
Age	19–22 years	118	31.7
	23–26 years	174	46.8
	27–30 years	57	15.3
	31 years and above	23	6.2
Education Level	Undergraduate Year 1	50	13.4
	Undergraduate Year 2	45	12.1
	Undergraduate Year 3	78	21.0
	Undergraduate Year 4	68	18.3
	Master's Degree	89	23.9
	Doctoral Degree	42	11.3
Field of Study	Humanities & Social Sciences	130	34.9
	Science & Engineering	133	35.8
	Medicine & Health Sciences	70	18.8
	Business & Management	12	3.2
	Others	27	7.3
Length of Stay in China	Less than 6 months	64	17.2
	6–12 months	99	26.6
	1–2 years	44	11.8
	2–3 years	134	36.0
	More than 3 years	31	8.3
Cross-Cultural Experience (Before China)	Yes	48	12.9
	No	324	87.1
Chinese Language Training	Yes	289	77.7
	No	83	22.3

5.2 Reliability Analysis and Internal Consistency

The reliability results show that all constructs demonstrate strong internal consistency, indicating that the overall scale is stable and dependable. Cultural Intelligence (CI) has a Cronbach's α of 0.964, suggesting that its items effectively capture students' cultural understanding, motivation, and behavioral capabilities. Language Proficiency (LP) records an α of 0.944, reflecting consistent responses across items related to language skills. Emotional Intelligence (EI) shows a coefficient of 0.939, indicating good alignment among the items.

Psychological Adaptation (PA) reaches a Cronbach's α of 0.968, demonstrating high consistency in measuring students' emotional states and adjustment levels. Cross-Cultural Adaptation (CCA) has the highest reliability at 0.977, suggesting that the 23 items provide a comprehensive assessment of students' adaptation in academic, social, and daily life contexts.

Table 3：Reliability Analysis

Construct	Cronbach's Alpha	N of Items
CI (Cultural Intelligence)	0.964	20
LP (Language Proficiency)	0.944	10
EI (Emotional Intelligence)	0.939	10
PA (Psychological Adaptation)	0.968	20
CCA (Cross-Cultural Adaptation)	0.977	23

5.3 KMO and Bartlett's Test

The results of table 3 demonstrated that the KMO value was 0.974, indicating excellent sampling adequacy, far above the recommended minimum threshold of 0.60. Additionally, Bartlett's Test of Sphericity was statistically significant (χ^2 = 42421.668, df = 3403, p < .001), confirming that the correlation matrix was sufficiently factorable. These results collectively validated the appropriateness of the data for factor analysis.

Table 4. KMO and Bartlett's Test

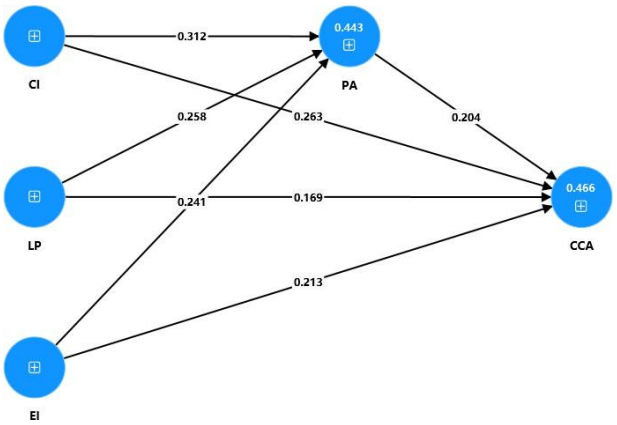
KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.974
	Approx. Chi-Square	25986.344

Bartlett's Test of Sphericity	df	3403
	Sig.	.000

5.4 Measurement Model Assessment

The research used the Smart-PLS software to construct a structural model, which is shown as Figure 2.

Figure 2:PLS-SEM



The factor loading results show that the loading values of all measurement items (CI1-CI20, LP1-LP10, EI1-EI10, PA1-PA20, CCA1-CCA23) exhibit a high level of consistency. All load values are much higher than the commonly used 0.70 standard, with the lowest value being 0.766 for PA13 and the highest value being 0.831 for CCA17. This indicates that each measurement index and its underlying structure (Cultural Intelligence, Language Proficiency, Emotional Intelligence, Psychological Adaptation) It has a strong convergent validity with Cross-Cultural Adaptation. The load ranges of CI (0.750-0.795), LP (0.793-0.831), EI (0.779-0.824), PA (0.766-0.805), and CCA (0.798-0.831) are all highly concentrated and significantly exceed the minimum acceptance criteria. This fully confirms the measurement quality and the reliability of the indicators of the model in this study.

Table 5: Outer loading

Item	Loading	Item	Loading	Item	Loading	Item	Loading
CI1	0.750	LP1	0.818	PA1	0.794	CCA1	0.806
CI2	0.759	LP2	0.827	PA2	0.793	CCA2	0.808
CI3	0.768	LP3	0.815	PA3	0.778	CCA3	0.821
CI4	0.774	LP4	0.831	PA4	0.779	CCA4	0.804
CI5	0.750	LP5	0.822	PA5	0.805	CCA5	0.813
CI6	0.755	LP6	0.813	PA6	0.776	CCA6	0.798
CI7	0.774	LP7	0.793	PA7	0.781	CCA7	0.818
CI8	0.754	LP8	0.804	PA8	0.781	CCA8	0.810
CI9	0.777	LP9	0.805	PA9	0.799	CCA9	0.825
CI10	0.753	LP10	0.815	PA10	0.779	CCA10	0.818
CI11	0.769	EI1	0.790	PA11	0.790	CCA11	0.819
CI12	0.784	EI2	0.818	PA12	0.801	CCA12	0.824
CI13	0.787	EI3	0.824	PA13	0.766	CCA13	0.827
CI14	0.755	EI4	0.779	PA14	0.787	CCA14	0.808
CI15	0.765	EI5	0.822	PA15	0.784	CCA15	0.822
CI16	0.765	EI6	0.791	PA16	0.780	CCA16	0.826
CI17	0.792	EI7	0.818	PA17	0.788	CCA17	0.831
CI18	0.770	EI8	0.802	PA18	0.799	CCA18	0.817
CI19	0.790	EI9	0.809	PA19	0.771	CCA19	0.816
CI20	0.795	EI10	0.795	PA20	0.795	CCA20	0.810
						CCA21	0.801
						CCA22	0.809
						CCA23	0.809

Table 6 reflects the internal consistency and convergent validity of the measurement model. Cronbach's alpha ranges from 0.940 (EI) to 0.977 (CCA), and the composite reliability ranges from 0.948 (EI) to 0.978 (CCA). This demonstrates that the internal consistency reliability of the model is extremely excellent. The AVE values of all latent variables are greater than the minimum acceptance standard of 0.50, indicating that the measurement terms of each construct can well explain their own variances and have high construct cohesion.

Table 6: Construct Reliability and Average Variance Extracted (AVE)

	Cronbach's alpha	**Composite reliability**	**Average variance extracted (AVE)**
CCA	0.977	0.978	0.664
CI	0.964	0.967	0.592
EI	0.940	0.948	0.648
LP	0.944	0.952	0.663
PA	0.968	0.970	0.618

Since the maximum correlation coefficient (0.589) among all latent variables is much lower than the square root of all constructs AVE, this strongly indicates that the five latent variables in this study are conceptually independent of each other. Therefore, the discriminative validity of the model has been confirmed.

Table 7: Latent Variable Correlation Matrix

	CCA	CI	EI	LP	PA
CCA	0.815				
CI	0.591	0.769			
EI	0.555	0.528	0.805		
LP	0.542	0.555	0.515	0.814	
PA	0.571	0.589	0.547	0.564	0.786

5.5 Structure Model

From the perspective of the path coefficient (O), there are significant differences in the influence of different variables on psychological adaptation (PA). Cultural intelligence has the greatest impact on PA ($\beta = 0.312$), followed by language ability ($\beta = 0.258$), and the role of emotional intelligence is relatively weak ($\beta = 0.241$). This indicates that when international students adapt to new cultures and learning environments, cultural understanding and cultural behavioral strategies can more directly promote the stability and adjustment of their psychological states than language proficiency and emotional processing ability. Among the direct influence paths of cross-cultural adaptation (CCA), cultural intelligence also occupies the strongest influence position ($\beta = 0.263$) and is a key factor determining the final adaptation status of students. Overall, all direct paths (H1 - H7) achieved statistical significance, laying a foundation for further analysis of the model structure.

On the other hand, the path coefficient ($\beta = 0.204$) of PA for CCA is relatively low. Compared with the higher coefficient ($\beta = 0.781$) in the initial model graph, it indicates that the path strength is adjusted to some extent during the Bootstrapping process, but its significance remains unchanged. The paths of the independent variables on PA were all significant (H4, H5, H6), and the significant influence of PA on CCA (H7) was also confirmed. These results collectively constitute the prerequisite conditions for testing the mediating effect (H8, H9, H10), providing sufficient basis for the subsequent model interpretation.

Table 8: Structural Model Results (Path Coefficients)

	Original sample (O)	mean (M)	S.D	T statistics	P
CI -> CCA	0.263	0.267	0.060	4.413	0.000
CI -> PA	0.312	0.316	0.063	4.989	0.000
EI -> CCA	0.213	0.211	0.044	4.878	0.000
EI -> PA	0.241	0.239	0.050	4.850	0.000
LP -> CCA	0.169	0.166	0.044	3.821	0.000
LP -> PA	0.258	0.256	0.053	4.884	0.000
PA -> CCA	0.204	0.202	0.049	4.197	0.000

Based on the results of the coefficient of determination (R^2) presented in Table 8, the explanatory power of the model reaches a solid and acceptable level. For the mediator variable Psychological Adaptation (PA), Cultural Intelligence (CI), Language Proficiency (LP), and Emotional Intelligence (EI) jointly account for 44.3% of its variance ($R^2 = 0.443$), indicating that these three competencies exert a stable and relatively strong predictive influence on individuals' psychological adjustment. Within the commonly accepted interpretive range, this value falls into the upper segment of the medium level, suggesting that the model provides substantial explanatory strength regarding the formation mechanisms of psychological adaptation.

For the ultimate dependent variable Cross-cultural Adaptation (CCA), all latent variables—including PA—together explain 46.6% of its variance ($R^2 = 0.466$). Although this value is slightly higher than that of PA, both fall within the generally recognized medium explanatory range (R^2 between 0.25 and 0.50 is typically considered medium). In addition, the adjusted R^2 values remain very close to the original values, indicating that the model does not contain redundant predictors. Overall, the model demonstrates stable fit, good explanatory efficiency, and satisfactory generalizability.

Table 8: R^2 value

	R-square	R-square adjusted
CCA	0.466	0.460
PA	0.443	0.439

The effect size results in Table 9 show that the predictive contributions of each independent variable vary noticeably across the model. For Psychological Adaptation (PA), Cultural Intelligence (CI) has the largest effect size (f^2 = 0.112), indicating a meaningful contribution to the variance explained. Language Proficiency (LP) and Emotional Intelligence (EI) also exert measurable influence on PA, though at somewhat smaller magnitudes (f^2 = 0.078 and f^2 = 0.071 respectively). Overall, these values fall within the small-to-medium range, suggesting that all three competencies play substantive roles in shaping individuals' psychological adjustment.

For Cross-cultural Adaptation (CCA), the effect sizes are comparatively smaller across all predictors. CI again shows the strongest effect (f^2 = 0.074), followed by EI (f^2 = 0.054) and PA (f^2 = 0.043). LP contributes the least (f^2 = 0.032), though it still meets the threshold of a small effect. Taken together, these results indicate that CCA is influenced by multiple factors, each exerting modest but meaningful effects rather than a single dominant predictor. This pattern aligns with the expectation that cross-cultural adaptation is shaped by a constellation of psychological and competence-related factors rather than by any single dimension alone.

Table 9: Effect Size (f^2)

	f-square
CI -> CCA	0.074
CI -> PA	0.112
EI -> CCA	0.054
EI -> PA	0.071
LP -> CCA	0.032
LP -> PA	0.078
PA -> CCA	0.043

The mediation results further clarify how the three competency variables influence cross-cultural outcomes. As shown in Table 10, Psychological Adaptation (PA) serves as a meaningful transmission mechanism linking Cultural Intelligence (CI), Emotional Intelligence (EI), and Language Proficiency (LP) to Cross-cultural Adaptation (CCA). For CI, the indirect effect through PA is 0.064, which contributes to the total effect of 0.326. Although the direct pathway from CI to PA (0.312) remains the dominant component, the presence of a significant indirect effect indicates that part of CI's impact on CCA operates through its role in strengthening students' psychological adjustment.

A similar pattern appears for EI. The specific indirect effect through PA is 0.049, yielding a total effect of 0.262. This shows that EI not only shapes psychological adaptation directly (0.241) but also exerts an additional influence on CCA once individuals' emotional stability and coping processes are taken into account. For LP, the indirect effect (0.053) makes a noticeable contribution to the total effect of 0.221, even though LP's direct path to PA (0.258) is slightly stronger. Finally, the direct effect of PA on CCA (0.204) confirms that students' psychological state is an important pathway through which these competencies translate into better adaptive outcomes. Overall, the results indicate that PA acts as a partial mediator across all three predictors, reinforcing the idea that psychological adjustment is a key mechanism connecting individual competencies with their eventual cross-cultural adaptation.

Table 10: Mediation and Total Effects Results

Path	Specific Indirect Effect	Total Indirect Effect	Total Effect
CI → PA → CCA	0.064	0.064	0.326
CI → PA	–	–	0.312
EI → PA → CCA	0.049	0.049	0.262
EI → PA	–	–	0.241
LP → PA → CCA	0.053	0.053	0.221
LP → PA	–	–	0.258
PA → CCA	–	–	0.204

6. Discussion

The PLS-SEM analysis results of this study confirmed the validity of the model and provided key structural insights for cross-cultural adaptation research. All direct path hypotheses (H1-H7) have received statistical support, indicating that cultural intelligence (CI), emotional intelligence (EI), and language ability (LP) significantly influence psychological adaptation (PA) and cross-cultural adaptation (CCA), and PA itself is also a key predictor of CCA.

The core finding of this study is that Psychological Adaptation (PA) plays a significant partial mediating role between the three competency variables and the final Cross-cultural Adaptation (CCA). This supports the perspective of Acculturation Cycle Theory, which emphasizes that successful external adaptation (CCA) depends on individuals' internal psychological adjustment. The model explains 46.6% of the variance in

CCA ($R^2 = 0.466$), highlighting the important function of PA as a "buffer" and "converter" between competencies and adaptation outcomes. Among all the predictors, Cultural Intelligence (CI) has the strongest effect on PA ($\beta = 0.312$, $f^2 = 0.112$) and the most substantial direct effect on CCA ($\beta = 0.263$, $f^2 = 0.074$). This aligns with Social Learning Theory, underscoring that the metacognitive and behavioral components of CI are key pathways for learning a new culture and maintaining psychological stability. In comparison, Language Proficiency (LP) and Emotional Intelligence (EI) also significantly affect PA but have relatively weaker direct effects on CCA. This suggests that LP and EI primarily facilitate CCA indirectly by influencing individuals' psychological well-being and emotional resilience, rather than directly shaping behavior or social interaction.

The study findings are highly consistent with existing literature. Cultural Intelligence (CI) emerges as a key predictor of Psychological Adaptation (PA), with a predictive strength of $\beta = 0.312$, confirming the findings of D'Souza et al. (2023) and Rana et al. (2020) and reinforcing CI's dominant role in managing cross-cultural stress. Regarding Emotional Intelligence (EI), the significant direct effects on both PA and CCA ($\beta = 0.213$) support the observations of Kai Liao et al. (2021). This study further highlights the mediating role of PA, showing that EI primarily facilitates adaptation indirectly through emotional regulation and psychological resilience. For Language Proficiency (LP), the results confirm Ivanova and Sidorova's (2020) view that multilingual ability is positively associated with socio-psychological adaptation, although the effect of LP is slightly weaker than that of CI. This indicates that in complex and high-pressure cross-cultural environments, cultural competence (CI) is more effective than language fluency alone in guiding both psychological and behavioral adaptation.

Given the central roles of CI and PA in the adaptation model, cross-cultural training for international students or expatriates should shift focus from merely teaching cultural facts to developing individuals' cultural intelligence and psychological resilience. Training programs should emphasize enhancing the metacognitive and behavioral dimensions of CI, such as situational observation and modeling stress-related behaviors, to strengthen the ability to cope with cultural shock. Moreover, the strong influence of PA on CCA indicates that universities and organizations must provide systematic psychological support, including culturally sensitive counseling services and stress management workshops. In addition, following Bethel et al. (2020), host-country engagement should be encouraged to promote active connections between students and the local community. Finally, although the direct effect of Language Proficiency (LP) is relatively weak, its significant impact on PA (H5) suggests that language instruction should incorporate emotional and practical communication skills to reduce anxiety and depressive feelings associated with lower language competence.

7. Limitations and Future Research Directions

This study adopted a cross-sectional design, which failed to establish a strict causal relationship and also could not track the changes in the adaptation process over time. Future research should adopt a longitudinal design to more accurately capture the dynamic change processes of PA and CCA.

The results of this study identified the mediating role of PA, but partial mediating implies that there are still unidentified mechanisms at play. Future research can explore other potential mediating variables, such as cultural exposure frequency (CCF) or Self-Efficacy, which are emphasized in Social Learning Theory to provide a more comprehensive path analysis.

The research mainly focuses on the international student group, and the conclusions of the model may be influenced by specific cultural backgrounds and learning environments. Future research should be extended to other foreign groups or different regions to test the generalization ability of the model. This study mainly relies on self-reported questionnaires. Future research can integrate multi-source data (such as teacher/colleague evaluations, behavioral observations) to reduce the impact of common methodological biases on the results.

8. Conclusion

This study employed PLS-SEM analysis on a sample of international students to systematically examine the mechanisms through which Cultural Intelligence (CI), Emotional Intelligence (EI), and Language Proficiency (LP) influence Cross-cultural Adaptation (CCA), while confirming the central mediating role of Psychological Adaptation (PA). The findings indicate that all direct effects (CI, EI, LP → CCA/PA; PA → CCA) are statistically significant, with CI exerting the strongest influence on both PA and CCA, highlighting its dominant role. PA is identified as a partial mediator between the three key competency variables and CCA, suggesting that CI, EI, and LP not only directly affect external adaptive behaviors but also operate through enhancing individuals' psychological resilience, emotional regulation, and well-being (PA) to achieve more effective cross-cultural adjustment.

Theoretical contributions of this study lie in the integration of CI, EI, and LP within a single structural model and the dual theoretical framing of Acculturation Cycle Theory and Social Learning Theory to explain their interactions, deepening the understanding of PA's transformative role in the competency-adaptation process. Practically, the results offer clear guidance for higher education institutions and multinational organizations, indicating that the most effective cross-cultural support strategies should focus on developing individuals' cultural intelligence and systematically strengthening psychological adaptation resources, thereby improving the likelihood of successful academic and social adjustment among international student populations..

REFERENCES

1. Wen, W., & Wang, L. (2022). International education and international student recruitment in China: Development and challenges. In International Student Recruitment and Mobility in Non-Anglophone Countries (pp. 163-181). Routledge.
2. Yin, X., & Zong, X. (2022). International student mobility spurs scientific research on foreign countries: Evidence from international students studying in China. Journal of Informetrics, 16(1), 101227.
3. Duan, Y., Huang, L., Cheng, H., Yang, L., & Ren, T. (2021). The moderating effect of cultural distance on the cross-border knowledge management and innovation quality of multinational corporations. Journal of Knowledge Management, 25(1), 85-116.
4. Sun Yanan, Gai Chao, & Zhang Guoying. (2024). Exploration to improve the satisfaction of overseas students. Metallurgical Education in China (06), 96-97.
5. Kai Lin. (2024). Analysis of the new public diplomacy path with overseas students as the main body——Take the Youth School talk show, for example. External transmission (12), 46-49.
6. Cao, C., Meng, Q., & Zhang, H. (2024). A longitudinal examination of WeChat usage intensity, behavioral engagement, and cross-cultural adjustment among international students in China. Higher Education, 87(3), 661-683.
7. Yang, P. (2022). China in the global field of international student mobility: An analysis of economic, human and symbolic capitals. Compare: A Journal of Comparative and International Education, 52(2), 308-326.
8. Wu Ni. (2024). Research on Language Use and Language Attitude among International Students in Madagascar [Master].
9. Gao, X., & Hua, Z. (2021). Experiencing Chinese education: Learning of language and culture by international students in Chinese universities. In (Vol. 34, pp. 353-359): Taylor & Francis.
10. Fan Qinghua, Wang Zhihao, & Zhang Di. (2024). Exploration of the ideological and cultural education mode for overseas students in China——Take Shanxi Medical University as an example. Journal of Shanxi Datong University (Social Science Edition), 38(05), 136-140.
11. Zhou Ping, Deng Ping, & Lu Tingting. (2024).Thinking and practice of national education for overseas students in China under the perspective of five education integration—— Take Changzhou Institute of Information Technology as an example. Journal of Shandong Commercial Vocational and Technical College, 24 (05), 45-49.
12. Xu, J. (2024). The Development of Translation Studies in China Since the Reform and Opening-Up. In New Thoughts on Translation (pp. 15-22). Springer.
13. Xue Liang. (2024). Research on the monitoring and countermeasures of the teaching quality of overseas students in China in the new Era. Educational observation, 13 (34), 25-28 + 32.
14. Ding Hang, & Xin Xiaolin. (2024). Reflections on national conditions education in comprehensive Chinese teaching under the perspective of cross-cultural empathy. Scientific consultation (Educational scientific research) (12), 261-264.
15. Manyeruke, G., & Tansel, E. (2024). Investigating social and psychological adaptation among international students: A study of factors influencing wellbeing. Kıbrıs Türk Psikiyatri ve Psikoloji Dergisi, 6(2), 105-115.
16. Waseem, M. A., & Hasan, N. (2020). When in Rome do as the Romans do or not? Cultural Intelligence and Cross-Cultural Learning. JISR management and social sciences & economics, 18(2), 1-10.
17. D'Souza, J. B. (2022). Cultural Intelligence to Cultural Adaptation of Expatriates in Thailand. REFLections, 29(3), 739-760.
18. Chu, K., & Zhu, F. (2023). Impact of cultural intelligence on the cross-cultural adaptation of international students in China: The mediating effect of psychological resilience. Frontiers in psychology, 14, 1077424.
19. Yang, Z., Yang, Y., & Kuan, Z. (2024). A cross-cultural examination of corporate social responsibility frameworks: contrasting paradigms in China and the west.
20. Zhou, R., & Zeng, X. (2021). Cross-cultural adaptability of international students in China. 7th International Conference on Social Science and Higher Education (ICSSHE 2021),
21. Guo, Q., & Chueachainat, K. (2024). Cross-Cultural Communication and Co-Directional Theory: Assessing the Impact of Cultural Background on Communication Efficacy Among International Students in Malaysia. Journal of Advances in Humanities Research, 3(1), 22-40.
22. Bethel, A., Ward, C., & Fetvadjiev, V. H. (2020). Cross-cultural transition and psychological adaptation of international students: The mediating role of host national connectedness. Frontiers in Education,
23. Wang, C., & Chiu, Y.-H. (2024). Foreign academic adaptation: Emotional intelligence and resilience perspectives. Asian Journal of Business Research Volume, 14(1).
24. Kai Liao, Y., Wu, W.-Y., Dao, T. C., & Ngoc Luu, T.-M. (2021). The influence of emotional intelligence and cultural adaptability on cross-cultural adjustment and performance with the mediating effect of cross-cultural competence: A study of expatriates in Taiwan. Sustainability, 13(6), 3374.
25. Alifuddin, M., & Widodo, W. (2022). How is cultural intelligence related to human behavior? Journal of Intelligence, 10(1), 3.
26. Gebregergis, W., Kovács, K. E., & Csukonyi, C. (2024). EXPLORING THE LEVELS OF CULTURAL INTELLIGENCE AND EMOTIONAL INTELLIGENCE AMONG ASIAN INTERNATIONAL STUDENTS. Eurasian Research Journal, 6(2), 29-60.
27. Abdyrakhmanova, K., & Poór, J. (2023). The role of emotional intelligence and cross-cultural adjustment on job performance of self-initiated expatriates with origins from Central Asian countries. Journal of Eastern European and Central Asian Research (JEECAR), 10(2), 326-338.

28. Pathak, S., & Muralidharan, E. (2020). Implications of culturally implicit perspective of emotional intelligence. Cross-cultural research, 54(5), 502-533.
29. D'souza, J. B., Dechpanprasong, W., Chan, C., & Ornla-or, R. (2023). Cultural Adaptation: A Mediator between Cultural Intelligence and Academic Performance in a Thai Context. Asia Social Issues, 16(5), e258480-e258480.
30. Rana, M., Bhasin, J., & Mushtaq, S. (2020). Measurement of cultural intelligence and its impact on psychological adaptation of international students in India. Vision, 24(4), 452-459.
31. Cavicchiolo, E., Manganelli, S., Girelli, L., Chirico, A., Lucidi, F., & Alivernini, F. (2020). Immigrant children's proficiency in the host country language is more important than individual, family and peer characteristics in predicting their psychological well-being. Journal of Immigrant and Minority Health, 22(6), 1225-1231.
32. Ivanova, I. P., & Sidorova, L. A. (2020). Bilingualism and Multilingualism as Means of Socio-Psychological Adaptation of the Students of Higher Educational Institutions. ARPHA Proceedings, 3, 875-884.
33. Jang, Y., Choi, E. Y., Wu, B., Dong, X., & Kim, M. T. (2022). Linguistic adaptation and cognitive function in older Chinese and Korean immigrants in the United States: A cross-sectional study. Journal of aging and health, 34(6-8), 951-960.
34. Montemitro, C., D'Andrea, G., Cesa, F., Martinotti, G., Pettorruso, M., Di Giannantonio, M., Muratori, R., & Tarricone, I. (2021). Language proficiency and mental disorders among migrants: A systematic review. European Psychiatry, 64(1), e49.
35. Cavicchiolo, E., Manganelli, S., Girelli, L., Chirico, A., Lucidi, F., & Alivernini, F. (2020). Immigrant children's proficiency in the host country language is more important than individual, family and peer characteristics in predicting their psychological well-being. Journal of Immigrant and Minority Health, 22(6), 1225-1231.
36. Ewa Krautz, A. (2024). Tolerance of ambiguity, need for cognitive closure and feeling like a different person when speaking different languages. Journal of Multilingual and Multicultural Development, 45(2), 289-305.
37. Ujire, D. K. (2020). Emotional Intelligence of School Children. Int. J. Curr. Microbiol. App. Sci, 9(9), 3694-3700.
38. Johennesse, L.-A., & Pressley, G. (1998). The influence of emotional intelligence in the workplace environment: A literature review. Journal of Social Science and Education Research Studies, 2(11), 695-698.
39. Bethel, A., Ward, C., & Fetvadjiev, V. H. (2020). Cross-cultural transition and psychological adaptation of international students: The mediating role of host national connectedness. Frontiers in Education,
40. Liang, X., Li, S., & Chen, X. (2023). Progress and Trends in Empirical Research on Cross Cultural Adaptation of International Students. Academic Journal of Humanities & Social Sciences, 6(22), 27-34.
41. Mishu, M. P., Tindall, L., Kerrigan, P., & Gega, L. (2023). Cross-culturally adapted psychological interventions for the treatment of depression and/or anxiety among young people: A scoping review. Plos one, 18(10), e0290653.
42. Ye, L., & Dong, X.-Y. (2021). The impact of cross-cultural adaptation on the psychology and entrepreneurial intention of venture entrepreneurs. Frontiers in psychology, 12, 705075.
43. Heim, E., & Weise, C. (2021). Special issue editorial: Cultural adaption of psychological interventions. Clinical Psychology in Europe, 3(Spec Issue), e7627.
44. Bethel, A., Ward, C., & Fetvadjiev, V. H. (2020). Cross-cultural transition and psychological adaptation of international students: The mediating role of host national connectedness. Frontiers in Education,
45. Berry, J. W. (2017). Theories and models of acculturation. The Oxford handbook of acculturation and health, 10, 15-28.
46. Berry, J. W. (2005). Acculturation. In Culture and human development (pp. 263-273). Psychology Press.
47. Bandura, A., & Walters, R. H. (1977). Social learning theory (Vol. 1). Prentice hall Englewood Cliffs, NJ.
48. Bandura, A., & Hall, P. (2018). Albert bandura and social learning theory. Learning theories for early years, 78, 35-36.

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