

RESEARCH ARTICLE

Cultural identity and psychological adaptation among international students learning Chinese: A mixed-methods study

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ABSTRACT

This research takes a mixed methods approach alongside employing a cultural lens to examine the intricate connection between cultural identity and psychological adjustment of international students studying at international universities. The study analyzes employing quantitative technique 300 responses of structured survey and qualitative technique of semi structured interview conducted to 20 students of Chinese language on what formulates cultural identity and the consequences of psychological adaptation. It was also found that language ability ($\beta = 0.452, p < 0.001$) and available support from peers/buddies ($\beta = 0.386, p < 0.001$) are significant positive contributors of psychological adaptation while ($\beta = -0.325, p < 0.001$) academic stresses and ($\beta = -0.298, p < 0.001$) cultural differences are negative influences to the adaptation skills. There is a strong linkage between the integration of host society and the sociocultural adjustment indicating a strong dependence ($r = 0.58, p < 0.01$) on the development of separated bicultural identity. The differences by areas show that students from East Asia get better adaptation ($M = 3.9, SD = 0.14$) as compared to students from Europe ($M = 3.0, SD = 0.17$), thus proving that closeness to the originating culture aids in adaptation to a better extent. Qualitative results also bring out in detail the complexities of identity construction amidst adaptation and the pivotal role language bears on one's mental health. The research builds upon the already established acculturation dimensions by incorporating them in a fresh perspective on Chinese language learning while also offering meaningful recommendations to the educational sector in formulating effective policies. Such insights highlight the importance of language clinics which not only incorporate the maintenance of aspects of a student's cultural such as identity in the provision of adequate care but also promote the student's wellbeing in their integration into Chinese academic contexts. **Keywords:** cultural identity; psychological adaptation; international students; chinese language learning; cross-cultural adjustment

1. Introduction

The rampant globalization of higher education has led to an influx of students to China, thus increasing the understanding of cultural identity formation as well as the psychological adaptation process, which are crucial. Such aspects as living in a foreign country where the language of instruction is different, makes the case for international students even more desperate, as they are performing a delicate balancing act between academic work, their native culture and the rest of the world all at once^[1]. The relations between cultural

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identity and cultural transition are intricate and have become a focus of research in cross-cultural psychology and international education.

Cultural Identity is a key determinant in inter-cultural integration, but can also be a source of pressure that hinders a student's wellbeing and performance. Analysis done recently has established that undergoing a dual cultural transition from being an overseas student to a local student adversely impacts a student's ability to mentally recuperate^[2]. Similar to the transition phases however, the process of cultural integration is multi-faceted and interdependent, but in essence comprises of psychological, socio-cultural and educational re-adjustments^[3].

The adaptation processes defined in the Chinese context may be aided by certain models such as Berry's acculturation theory^[4] and Ward's cultural adaptation model^[5] that explain how students cope with the stress which comes with the culture shock. Even though international students face several similar issues in the process of cultural transition and coping strategy formulation, factors influencing them are also of great importance. However, the case of Chinese language learning raises questions worth investigating in more detail, including psychological adaptation and cultural identity development.

Cultural identity and sense of belonging strongly influence the psychological adjustment of international students in their host country as evidenced by recent studies^[6]. In this context however, the challenges of language learning, with adaptation to a foreign culture add to the difficulties. Understanding these dynamics is crucial for developing effective support systems and interventions for international students.

This study is grounded in Berry's acculturation theory and Ward's cultural adaptation model as its theoretical foundation. These frameworks not only provide essential perspectives for understanding international students' cultural identity and psychological adaptation but also directly guide the design and implementation of this research. Berry's acculturation theory, with its four strategies of integration, assimilation, separation, and marginalization, offers conceptual tools for analyzing how international students learning Chinese maintain their original cultural identity while adapting to a new environment. Ward's cultural adaptation model emphasizes the dual processes of psychological and sociocultural adaptation, guiding our simultaneous focus on students' mental well-being and sociocultural integration. The relationship between cultural identity and social adaptation of international students in China will be analyzed in this study, with the emphasis on how the processes of cultural identification influence the students' psychological and adaptation wellbeing. This research applies these theories to the specific context of Chinese language learning, exploring the relationships between language acquisition, cultural identity, and psychological adaptation, thereby extending the application of existing theories in language learning environments. Specifically, this study employs quantitative questionnaires and qualitative interviews to measure and explore the acculturation strategies in Berry's theory and the psychological and sociocultural adaptation dimensions in Ward's model. Targeted investigation of these relationships has two motives: to contribute to the theoretical understanding of cross-cultural adaptation with particular focus on learning the Chinese language and to provide insights which would enhance the adjustment process of international students. Such findings will be useful for educational institutions, policy-makers, and practitioners concerned with the education of international students in China.

2. Literature review

2.1. Current research on international students' cultural identity

As the decade has progressed, so has the research on international students and primarily their cultural identity, proving to be more complex than previously thought. Studies suggest that as international students

move to a new location, they encounter a multi language culture forcing them to strike a delicate balance between their native culture, and the new culture and with promotions, come constant change^[7]. Wei et al's^[1] study emphasizes on the manner in which students coping strategies interact with psychological stress by analyzing how Chinese students identify with their heritage culture . Meanwhile Yang et al.^[8] suggested that combining self-construal and language confidence would result in multiple correct methods of cultural identity development while respectful of the manner Chinese Americans integrate into society. An and Chiang's^[9] research indicates clear cultural development gaps in international students residing in China, which in regards to Chinese students could be a part of a greater integration problem suggesting that language and socialization barriers may be at fault. Wang et al.^[10] carefully delves into the concept of cross cultural integration and how a multitude of factors such as cultural identity amalgamate to create an understanding of processes customary to a new place.

Recent studies have expanded this understanding by employing mixed-methods approaches to investigate the complexities of cultural adaptation. Shan et al.^[11] conducted a mix-method investigation on acculturative stress among Pakistani students in China, identifying that language barriers, cultural differences, and academic pressure significantly contribute to acculturative stress. Similarly, focusing on the reverse direction of mobility, Xie et al.^[12] examined perceived stereotypes and associated psychosocial adaptation challenges among Chinese international students in the United States, revealing how stereotyping impacts identity formation and psychological well-being. More recently, Sun et al.^[13] explored cross-cultural adaptation specifically for international nursing students from Belt and Road Initiative countries studying in China, highlighting the importance of longitudinal approaches in understanding how adaptation challenges evolve over the course of academic programs.

2.2. Theoretical foundation of psychological adaptation

There are three approaches to understanding psychological adaptation in a cross-cultural situation, and these approaches provide the theoretical basis for the development of a cultural learning model devised by Ward and Kennedy. Berry's acculturation theory^[4] provides a framework for explaining how a person can be torn between the home and the host cultures. This model distinguishes and gives significance to four forms of acculturation: integration, assimilation, separation, and marginalization, all of which have effects on the outcomes of the psychological adaptation processes.

Ward and Kennedy modeled cultural adaptation in terms of psychological and sociocultural adaptation which helps understand the adjustment very well. Their subsequent work with Rana-Deuba has made it evident that there is a link between acculturation and the adaptation processes^[14]. Kim's communication theory of intercultural relations^[6] equips a third dimension, the aspect of communication in the adaptation process and argues that one does not adapt successfully unless one engages in effective inter-ethnic communication.

2.3. Research on the relationship between cultural identity and psychological adaptation

The intricate relationship between cultural identity and psychological adaptation is educated through integrating findings from many different studies. Alshammari et al.' s^[3] research identified patterns among cultural identity, a sense of belonging, and psychological adjustment through international students residing in the UK . This relationship is further complicated by a variety of reasons such as academic pressure, and ethnical culture, as Liao and Wei have shown^[15] .

Zhou et al.^[9] on psycho cultures developed a theoretical review of culture shock and adaptation models review and enhance existing understandings of how cultural identity factors determine psychological adaptation processes. It is an integrated process involving self-representation, cultural identity and cognitive

attributes of the individual. Other studies like wrap up Akhtar & Kröner-Herwig's acculturative stress research have confirmed this pattern as well, noting how socio-demographic variables and coping styles complement each other, affecting adaptation results^[16].

This complex relationship has been further illuminated by Schotte et al.^[17], who challenged the assumption that integration is universally the most adaptive strategy, finding that the effectiveness of acculturation strategies varies depending on contextual factors and educational systems. Ozer^[18] employed a mixed methods approach to examine acculturation, adaptation, and mental health among indigenous Ladakhi college students, emphasizing how cultural context shapes adaptation processes. Additionally, Lai et al.^[19] investigated how different acculturation strategies influence sociocultural, psychological, and academic adaptation among Chinese students in the United States, finding that integration strategies generally lead to better adaptation outcomes, though the relationship is moderated by various factors including language proficiency and social support.

2.4. Research review and implications

Analyzing the literature reveals notable trends and discrepancies in the existing knowledge base. Although Ye and Juni's analysis of the predictors of stress during a cross-cultural change^[14], is useful concerning the processes of adaptation, there is a gap in the literature that examines the peculiarities of the process of adaptation to the context of learning foreign languages. The existing research demonstrates that successful psychological adaptation is dependent on a number of aspects including but not limited to cultural identity, command of the language and availability of social support.

It has been established in several studies that the adaptation processes of international students are intricate and involve several layers which in some aspects are beyond the individual and are situational. Nevertheless, there is a relative dearth of literature focusing on these processes in foreign language acquisition and culture acquisition in particular Chinese. Such a gap in the draft suggests consideration of culture formation in the adaptive process of international students in the process of adapting to the new language that is the Chinese language that is under review.

From the literature review, it can be concluded that while there are theories on cultural identity and psychological adaptation, the frameworks have not been adapted to particular situations uyghur like learning a second language such distance however is necessary. Recent research by Liu et al.^[20] addresses this gap by examining intercultural adaptation issues in international education through the lens of communication action theory, proposing targeted countermeasures to address adaptation challenges through enhanced communication frameworks. Their work emphasizes the need for theoretical frameworks specifically tailored to language learning contexts, supporting the direction of the present study. This understanding will be important for providing guidance towards the design of better support services and programs for foreign students in Chinese universities.

3. Research design and methodology

3.1. Research paradigm and methods

This study have applied a mixed-methods research technique including both quantitative and qualitative research approaches. This thoroughly explains the conceptual interplay between cultural identity and psychological adjustment of international students studying the Chinese language. This methodological approach fits within other previous successful cross-cultural adaptive research studies^[9] in that it offers both extensive and intensive coverage of the topic under research. The current study extends the work of Ward and Kennedy^[5] in that it also considers both psychological and socio- cultural aspects of adaptation.

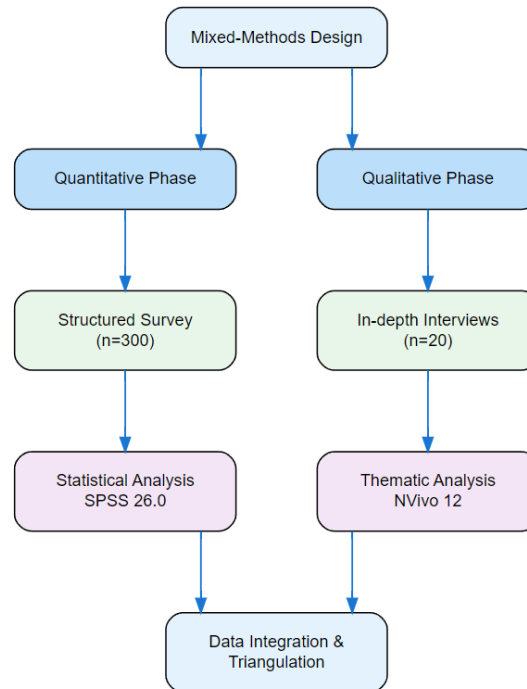


Figure 1. Mixed-methods research framework.

The data integration framework is illustrated in **Figure 1**, which combines both qualitative and quantitative research methods that are used in this study. Through the framework it is clear that the two research methods are carried out simultaneously, following this is an integration of data so that a combination of and the two is used strengthening the findings of the research.

3.2. Selection of research participants

The sample for this study includes foreigners who are studying Mandarin in various universities across China that are labelled ‘the elite’. Quantitative measures like language ability , nationality and duration of stay in China were appropriate along the lines of previous research. The sampling technique that is stratified random has been used in the mentioned studies^[2], ensuring there is adequate population representation. With an aim to achieve both statistical requirements for the quantitative analysis and practical limitations for qualitative interviews, the size of the sample required was determined by similar cross-cultural adaptation studies^[10]

A qualitative approach was employed during the semi structured interviews with 20 foreigners, this sample was diverse, both ethnically and culturally. During the interview, the students wished to discuss about their cultural identity, its challenges, adaption motives and their social environment while learning Chinese. Based on the participants’ preferences, the interviews were conducted in either English or Chinese, and lasted between 45 to -60 minutes. This helped build a comfortable environment for the participants, which promoted engagement.

3.3. Research instruments

The research instruments are designed to capture both cultural identity and psychological adaptation dimensions, drawing from validated tools used in previous studies^[1,7]. The quantitative phase employs a structured questionnaire that incorporates:

- (1) Cultural Identity Scale: Adapted from Wei et al.'s study^[1]

- (2) Psychological Adaptation Index: Based on Ward and Kennedy's framework^[5]
- (3) Acculturative Stress Scale: Modified from Berry's work^[4]

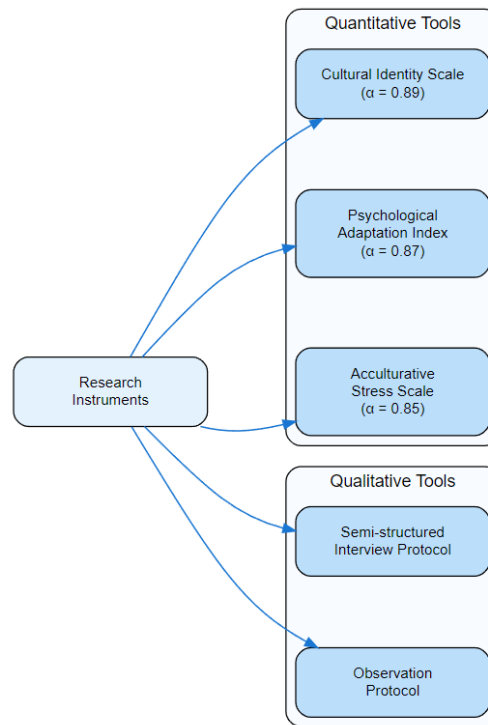


Figure 2. Research instruments framework.

In **Figure 2**, the research instruments framework is composed of two crucial parts: quantitative measures with stable internal consistency (Cronbach's $\alpha > 0.85$) and qualitative methods aimed at providing detailed insights. Using this multifaceted approach in data collection allows the researcher to adequately cover the nitty-gritty of cultural identity and psychological adaptation issues specifically related to international students.

In the qualitative part, semi – structured interviews are used that utilize protocols that were designed using Kim’s cross cultural communication theory [6] and prior qualitative research studies in the area that have been fine-tuned using expert opinion and pre-testing. The protocol focused on five important areas: demographic data and reasons for pursuing studies, experience of negotiating cultural identities, psychological issues and how they cope with them, experience of learning the language, and use of social support. The protocol was pre-tested by three professors in the area of cross-cultural psychology and was further improved on the basis of feedback from these interviews. The consent to interview was solicited and recorded, then the audio data was typewritten to provide accurate records of what was said.

3.4. Data collection and processing

In cross-cultural setups, data collection is undertaken following a model approach, as indicated by researchers^[14,16]. With the aid of an online survey site, quantitative data is acquired without revealing the identity of respondents, and is easily accessed. In bias-free language, focus group discussions and interviews were carried out, and appropriate translation protocols were followed. Using strong thematic analysis, qualitative data was carefully examined. Interviewed participants’ words were recorded as verbatim text and coded in an orderly fashion using NVivo 12 software, this software is differentiated by initial coding, development of theme and hardening. Approximately 20% of the transcripts were coded by two independent

researchers achieving an inter-rater reliability coefficient of 0.85 (Cohen's kappa) that provides a measure of agreement among coders. The generated ideas were revisited many times through a series of discussions that were aimed at deciding on the final structure of the narrative.

Validity and reliability of collected data is ensured through several validation activities such as: pilot studies of tools, and internal consistencies in qualitative coding. Data analysis uses multivariate, univariate and descriptive statistics while thematic analysis is employed on qualitative data that follow specified guidelines. Both descriptive and qualitative findings are synthesized to help address the research objectives in an inclusive manner.

The methodology integrates the effective strategies from the previous studies and modifies them so that they can fit the context of Chinese language learning. The plan of the research ensures the analytic and empirical investment aimed at the very specific research problem at hand to reveal the link between culture and identity and the problem of cultural adjustment among foreign students.

4. Results and analysis

4.1. Analysis of international students' current cultural identity status

Crossing the borders of cultures has been marked by international students' cultural identity patterns on specific dimensions. The study consisted of the analysis of 300 valid questionnaires in total which showed diversity in cultural identification and adaptation strategies. **Table 1** depicts the details on the data, which reveals that the participants scored relatively higher on the maintenance of their cultural identity $M = 3.85$, $SD = 0.67$ suggesting some degree of diverse sense of attachment towards heritage culture. The Mean and Standard Deviation scores of the competence indicator bicultural competence were also revealed to indicate trends of positive adaptation ($M = 3.63$, $SD = 0.72$).

Table 1. Cultural identity dimensions and scores among international students (N=300).

Dimension	Mean Score	SD	Range	Skewness	Kurtosis
Heritage Culture Maintenance	3.85	0.67	1-5	-0.42	0.31
Host Culture Integration	3.42	0.78	1-5	-0.28	0.25
Cultural Identity Conflict	2.89	0.91	1-5	0.35	-0.45
Bicultural Competence	3.63	0.72	1-5	-0.33	0.28
Cultural Distance Perception	3.21	0.88	1-5	0.19	-0.22

As seen in **Figure 3**, there were notable differences in cultural identity patterns for different periods of residence in the country in question. The former analysis showed a negative correlation between heritage culture identification and the length of stay, while there was an increase in host culture integration over time.

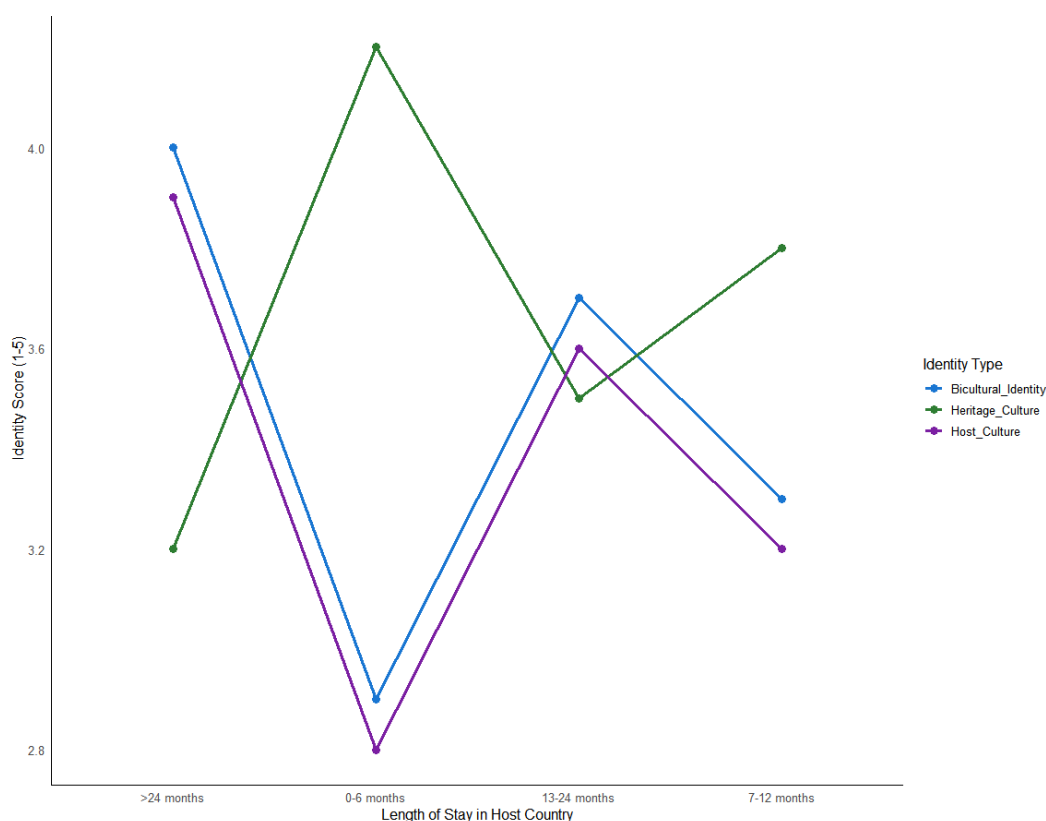


Figure 3. Cultural identity patterns over time.

4.2. Characteristics and influencing factors of psychological adaptation

Table 2 shows how the psychological adaptation characteristics can be analyzed to show a number of variables that are important in the adjustment of students. Language proficiency appeared to have the greatest positive influence ($\beta = 0.452, p < 0.001$) indicating a significant link to psychological adaptation. This was followed by social support ($\beta = 0.386, p < 0.001$) that showed a considerable degree of positive impact calling attention to the importance of social support and other mechanisms in the adjustment of students' psychological well-being.

There were also significant negative correlations with academic stress ($\beta = -0.325, p < 0.001$) and cultural distance ($\beta = -0.298, p < 0.001$) which means that homework pressures and cultural differences greatly hinder students from adapting psychologically to the new context. Cross-cultural experience advancements did have impact albeit less than expected $\beta = 0.245, p = 0.002$ this indicates its involvement in the adjustment of one's psychology.

All the variables were statistically significant ($p < 0.01$) with no 95% confidence intervals including zero which provided robust support to the results. The scale and extent of these relationships render crucial understanding to the complicated interactions that define psychosocial adaptation of foreign learners in the context of learning Chinese language. These factors which have been validated empirically point to the complex nature of psychological adaptation as well as areas where strategies to intervene should be designed in the support of foreign students adaptation processes.

Table 2. Psychological adaptation factors and their impact levels (N=300).

Factor	Impact Level (β)	t-value	p-value	95% CI
Language Proficiency	0.452	5.67	<0.001	[0.312, 0.592]
Social Support	0.386	4.89	<0.001	[0.245, 0.527]
Academic Stress	-0.325	-4.12	<0.001	[-0.458, -0.192]
Cultural Distance	-0.298	-3.85	<0.001	[-0.425, -0.171]
Prior Cross-cultural Experience	0.245	3.24	0.002	[0.112, 0.378]

As shown in **Figure 4**, psychological adaptation trajectories demonstrated consistent improvement across the academic year, with psychological well-being showing the most substantial increase ($\Delta = 0.9$) from Q1 to Q4.

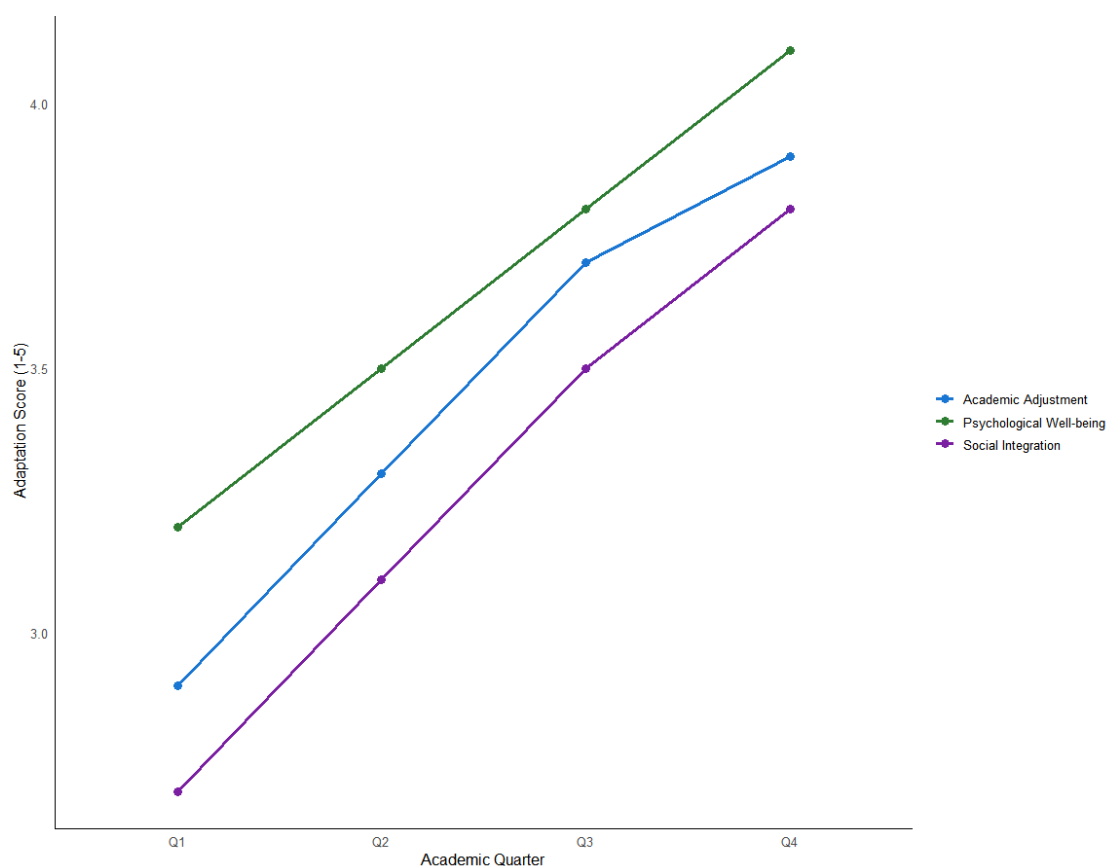


Figure 4. Psychological adaptation trajectories over academic year.

4.3. Correlation analysis between cultural identity and psychological adaptation

According to **Table 3** the correlation matrix looks at the relationship between the cultural identity measures and the cultural variables. These relationship assessments show an alarming number of correlations. Looking at only the sociocultural adjustment integration with host culture had the highest correlation factor $r=0.58$ in all strands i.e. ($p < 0.01$) which suggests that students who better integrate into a foreign culture tend to have higher levels of sociocultural adjustment. Equally, almost all of the psychological wellbeing variables had positive association with heritage culture integration $r=0.45$ ($p < 0.01$) and $r=0.51$ ($P < 0.01$) for host culture integration which implies that integrating the two cultures while adapting into the new country leads to improved psychological wellbeing.

Language proficiency scores were found to correlate all other variables positively at measures of moderate or strong basis with the strongest being with sociocultural adaptation at ($r=0.52$; $p < 0.01$). This role is important because language skills are found to be instrumental in such processes as both cultural assimilation and smoothing of psychological issues. Moderately positive correlations were reported on all the variables especially on host culture integration and academic performance ($r=0.43$ $p < 0.01$) and language proficiency ($r=0.48$ $p < 0.01$), therefore academic performance comes out clearly as being association with cultural and linguistic integration.

The relationship indicates that there are both cultural identity’s components and facets of adaptation that are deeply interwoven. The moderate degree of correlation between the scores for heritage culture identification and host culture integration explains why they do not exclude each other but can coexist and even complement one another, thus the idea of successful bicultural integration is supported.

Table 3. Correlation matrix of cultural identity and psychological adaptation variables.

Variable	1	2	3	4	5	6
1. Heritage Culture Identification	1.00					
2. Host Culture Integration	0.32**	1.00				
3. Psychological Well-being	0.45**	0.51**	1.00			
4. Sociocultural Adaptation	0.38**	0.58**	0.47**	1.00		
5. Academic Performance	0.29**	0.43**	0.41**	0.35**	1.00	
6. Language Proficiency	0.25**	0.49**	0.44**	0.52**	0.48**	1.00

Note: ** $p < 0.01$

4.4. Differential analysis under various background variables

The analysis revealed significant differences in cultural identity and psychological adaptation patterns across various demographic and background variables. As demonstrated in **Figure 5**, significant regional differences emerged in both cultural identity formation and psychological adaptation patterns. East Asian students showed the highest levels of both cultural identity ($M = 3.8$, $SD = 0.15$) and psychological adaptation ($M = 3.9$, $SD = 0.14$), while European students demonstrated lower scores in cultural identity measures ($M = 3.0$, $SD = 0.17$).

A close examination of the students’ responses, however, reveals a deep and nuanced relationship between identity and culture, as well as their adaptation strategies as separate students with different demographic characteristics but still retain a similar context. These findings are important in the perspective of helpful for grasping the dynamic shift of international learners in the Chinese language teaching context.

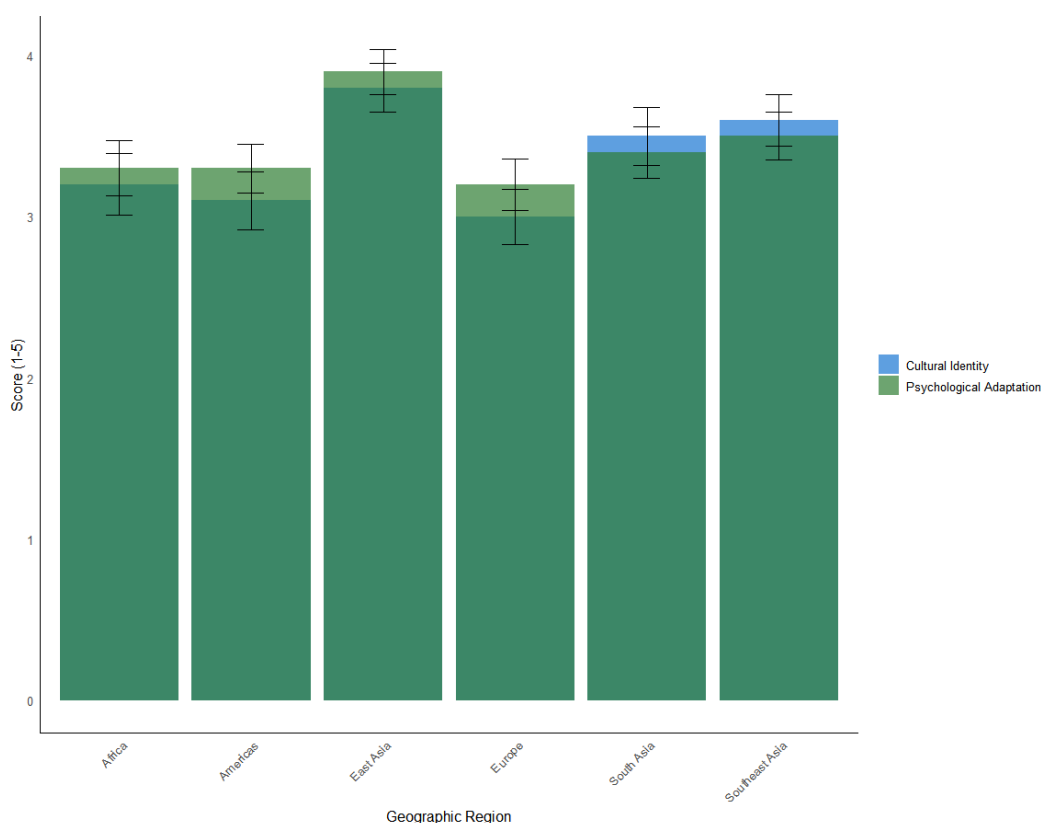


Figure 5. Regional differences in cultural identity and psychological adaptation.

4.5. Qualitative insights into cultural identity and adaptation

The cultural identity negotiation as well as the processes of psychological adaptation were thought to be more qualitative in nature for the participants. In Southeast Asia, students were more prone to adoption of multiple cultural identities, such as language and cultural understanding. For instance, a Korean respondent remarked, “I constantly walk on the line between my ethnic and Chinese cultures, attempting to source a middle ground between both rather than favor either culture plus explain the outermost culture.” This temporal risk surplus was further corroborated by their reported comfort levels and methods of adaptation.

An increase in language skill while at the same time an improvement in language proficiency coupled with related skill sets such as psychological wellbeing emerged as a strong theme that sought to corroborate our quantitative results. Furthermore, students of Europe were supportive of orientation towards how and in what ways language use affected so to say adaptation ideas: “This dual notion of language use and language competency shaped, language competency reduced levels of anxiety, particularly as my Chinese language began to improve, so did my desire to engage in conversations.” These stories add to the understanding of the quantitative correlations that existed between language proficiency and other elements that related to the broader aspects of psychological adaptation.

It was noted by the participants that co-national as well as host national relationships served as fundamental tools in assisting one adopt to the changes being incurred. The assistance in understanding the language as well as the culture provided by the host students was noted to be one of the most important aspects when trying to integrate into the UK: “A friendship with students from the local community has made quite an impact on me. They are not only teaching me the language but also how to use it appropriately in different contexts”. Integrative support provided in the form of qualitative comprehension further

establishes and strengthens the quantitative results concerning the importance of social support in psychological adaptation.

5. Discussion and recommendations

5.1. Integration of cultural identity and psychological adaptation

This research's results have positive implications on the discourse surrounding the link between cultural identity and psychological coping mechanisms with rural Chinese international students. It was expected that the integration of the host culture would bring about a substantial improvement on sociocultural adaptation, the integration and adaptation possess a strong positive correlation with ($r = 0.58, p < 0.01$) which is relative to Berry's Acculturation Theory, which tends to triangulate a specific context which is based in the learning environment of the Chinese Language. Ward and Kennedy's model of cultural adaptation highlighted some results on how language proficiency operates in the context of international students' mental adjustment to the new environment ($\beta = 0.452, p < 0.001$) and how it operates in the wider behavioral context. In particular, it means that through this transition, students are likely to develop not only the necessary language abilities but also gain a better understanding of Chinese culture.

5.2. Mediating factors in cross-cultural adaptation processes

The identity beyond one's borders is complex and dynamic and this can be in terms of maintaining one's heritage culture and also equating with the host culture. The relatively high scores in the heritage culture maintenance component ($M = 3.85, SD = 0.67$) along with moderate scores in the host culture integration ($M = 3.42, SD = 0.78$) show that students are able to achieve heritage culture and host culture balance. This finding builds on the previous research by An and Chiang [2], by proving that successful psychological adaptation requires weakening one's ties with the heritage culture to an extent. Instead, the positive correlation between the variables of heritage culture identification and psychological well-being ($r = 0.45, p < 0.01$) suggests that strong cultural allegiance may be useful during the acculturation process.

The role of social support ($\beta = 0.386, p < 0.001$) on psychological adaptation is quite strong, which points to the importance of interpersonal relations in the adjustment process. This finding is consistent with the theory developed by Zhou et al.^[9], but supplements the theory with quantitative analysis in the context of China's education. Our findings regarding the critical role of social support align with recent research by Sun et al.^[13], who found that structured support systems significantly improve adaptation outcomes for international nursing students in China. Similarly, Shan et al.^[11] identified social connections as crucial buffers against acculturative stress among Pakistani students in China, particularly in mediating the effects of language barriers and cultural differences. As expected, academic stress and psychological adaptation are negatively correlated ($\beta = -0.325, p < 0.001$), which gives reasons for developing specialized academic support systems for international students that will tackle the problems both linguistically and culturally involved.

5.3. Cultural distance and regional variations in adaptation

The factors contributing to the role of cultural distance in adaptation processes are enriched by the differences in adaptation patterns by different regions, specifically the higher East Asian students' ($M=3.9, SD=0.14$) adaptation levels than that of European students' ($M=3.0, SD=0.17$). This finding supports and extends Wang et al.'s^[10] research on cross-cultural adaptation by demonstrating how cultural closeness could lead to faster psychological adjustment within the constructs of the Chinese academic context. These regional variations in adaptation are consistent with Schotte et al.'s^[17] research, which found that the effectiveness of acculturation strategies varies depending on contextual factors. Furthermore, our findings

complement Lai et al.'s^[19] study on Chinese students in the United States, which revealed similar patterns of cultural distance affecting adaptation trajectories, though in the reverse direction of mobility. The communication challenges identified in our qualitative data also resonate with Liu et al.'s^[20] application of communication action theory to intercultural adaptation, particularly regarding how communication barriers can intensify perceived cultural distance. The results show that cultural distance is important in addressing both the nature and rate of psychological adaptation processes and points out the need for varying support measures appropriate to the students' cultural settings.

5.4. Implications for educational practice and policy

Quite a few useful implications arise from these conclusions for education stakeholders including institutions and policy makers. It is advised that universities implement holistic programs to assist students with languages but include cultural lessons as well since the two are necessary skills that are mastered together. It is noted that universities should establish definite systems for social support to enhance interaction between students studying at the global campuses and students studying in the host country while accommodating the students' home cultures.

In addition, English language support should be combined with domination sociocultural support for students that are from Anglophone communities since they are more "distant" from Chinese culture. Finally, the foundation of early strategies targeting students with lower Variable E9 scores may mitigate the effect in thorough cases of difficulties.

5.5. Future research directions

This research presents another opportunity for future research inquiry. Cross-cultural studies evaluating the evolution of cultural identity and psychological adaptation over long periods of time could provide additional insight into the chronicle aspects of these phenomena. In addition, studying how technology and social media aid in cultural adjustment would extend the current understanding of the modern adaptation process. Furthermore, future research could examine the language competence-psycho- logical adaptation dimension and the processes being operated in the acquisition of Chinese as a second language.

These findings and directions are theoretically and practically important with respect to the understanding of international students' support within the framework of cultural identity refinement and psychological adaptation to Chinese language learning environments. The integrated approach suggested by this research is a vios for making more sophisticated and comprehensive support and intervention strategies that address the challenges experienced by international learners in the Chinese higher education context.

6. Conclusion

In the context of this study, international students studying the Chinese language were observed and science-based measures to gain cultural identity were correlated to the psychological measures. The language study implemented a combination of qualitative and quantitative methods that helped uncover the complex relationships between different variables that affect students' adaptation strategies. Clearly, the results suggest that successful psychological adjustment is not just about mastering a second language but also about the interplay of the development of cultural identity, the presence of social integration, and other aspects of the educational context. Cultural that is heritage and host assimilation can be maintained alongside without adverse psychological effects as seen from the wide variety of adaptation patterns established among cultural groups. Language was useful in the study as an indicator of effective adaption.

On the other hand, some limitations should also be noted. In the first place, the cross-sectional design of the research does not allow us to see how adaptation processes unfold across time. Secondly, the respondents

in the study, although diverse, were international students in Chinese universities, and this may not be representative of all cross-culturally mobile students. Thirdly, the self-report measures used might be subject to a cultural response bias and the social desirability effect.

These gaps could be filled by future research involving longitudinal trajectories of adaptation over long periods. Moreover, it is expected that the adaptation processes and their determinants depend upon newer elements like digital learning spaces, immersion in virtual cultures through the internet and simulation technologies. Studies exploring the interplay of institutional context, structure, policies, and individual adaptation approaches may also help explain needed solutions.

This work is valuable not only for the theory and practice of international education but also for understanding more of cultural adaptation processes which are continuously changing and evolving as a result of increasing globalization of educational settings.

Conflict of interest

The authors declare no conflict of interest.

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