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Cultivating Cross-cultural Adaptation and Global Competence: Research on International Student Education

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Abstract: With the rapid internationalization of higher education, understanding the cross-cultural adaptation and global competence of international students has become increasingly important. This study systematically investigates the relationship between cross-cultural adaptation—encompassing academic, social, and psychological dimensions—and global competence, which includes cultural awareness, intercultural communication, global perspective, and cross-cultural problem-solving abilities. A mixed-methods approach was employed, combining surveys of 300 international students from diverse countries and disciplines with semi-structured interviews to capture in-depth experiences. Results indicate that cross-cultural adaptation significantly predicts global competence, with social and psychological adaptation showing particularly strong effects. Differences were observed across student backgrounds, with undergraduates and students from culturally distant countries facing greater challenges. Based on these findings, practical recommendations are proposed for universities and students to enhance adaptation and competence, including targeted academic support, social and cultural programs, psychological counseling, and proactive student engagement in cross-cultural experiences. The study contributes to theory by empirically validating the adaptation-to-competence pathway and provides actionable insights for international education management and policy development.

Keywords: cross-cultural adaptation; global competence; international students; higher education; academic adjustment; social integration; psychological resilience

I. Introduction

1.1. Research Background

With the acceleration of globalization, the internationalization of higher education has become a key trend in the development of universities. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO), the number of international students worldwide increased from over 2 million in 2000 to more than 6 million in 2023, showing a continuous upward trend. International students not only increase in number but also exhibit substantial diversity in terms of academic disciplines, cultural backgrounds, and social contexts. The convergence of multiple cultures makes university campuses important sites for cross-cultural communication and provides students with unique opportunities for learning and personal development. However, cultural differences, language barriers, and variations in social systems pose significant challenges for international students in adapting to new environments. Cross-cultural adaptation skills and global competence have therefore become critical indicators for evaluating international students' academic development, social integration, and personal growth [1].

1.2. Research Problem

Despite the rapid global expansion of international education, evidence indicates that many international students encounter considerable difficulties during the adaptation

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process. Academically, they may face challenges arising from different teaching methods, learning styles, and assessment standards, such as participation in classroom discussions, academic writing formats, and the requirements of independent research. Socially, they need to understand and integrate into new cultural practices, social norms, and interpersonal patterns, which may lead to feelings of isolation or culture shock. Psychologically, prolonged adaptation stress, frustration caused by cultural differences, and language barriers may result in anxiety, depression, or other mental health concerns. Moreover, students from different countries and regions exhibit variations in adaptation experiences, suggesting that educational management and cross-cultural support strategies need to be more targeted and diversified. Based on these challenges, this study aims to explore the relationship between cross-cultural adaptation and global competence, addressing the following core questions:

- 1) What is the current state of international students' cross-cultural adaptation in academic, social, and psychological domains?
- 2) How do international students from different backgrounds differ in terms of global competence?
- 3) What role does cross-cultural adaptation play in the development of global competence?

1.3. Research Objectives and Significance

The primary objective of this study is to systematically examine the relationship between international students' cross-cultural adaptation and global competence, and to propose feasible educational and management strategies. Theoretically, this research contributes to the expansion of cross-cultural adaptation theory and provides empirical support for studies on global competence, particularly in the context of higher education internationalization. Practically, the findings can guide universities in designing more effective cross-cultural training programs, enhancing psychological and social support systems for international students, and optimizing academic guidance and curriculum arrangements, thereby helping students integrate more quickly into their learning and living environments while improving their global competence and overall capabilities [2]. Additionally, this study offers references for policymakers to develop targeted educational policies, promoting the internationalization of higher education and enhancing the quality of talent cultivation.

2. Research Methodology

2.1. Participants and Sample

The participants of this study were international students enrolled in major universities across China, Europe, and North America, including undergraduate students, graduate students, and a subset of short-term exchange students. To ensure the representativeness of the sample, selection criteria considered students' nationality, disciplinary background, duration of study abroad, and language proficiency. Ultimately, approximately 300 valid responses were collected from students of diverse national origins, with a roughly balanced gender distribution. The academic disciplines represented included science and engineering, social sciences, humanities, and business studies, among others. The diversity of the sample allows for a comprehensive reflection of international students' differences in academic, social, and psychological adaptation, thereby providing a reliable foundation for analyzing the relationship between cross-cultural adaptation and global competence. Such a heterogeneous sample not only strengthens the generalizability of the findings but also ensures that multiple perspectives on adaptation and competence development are adequately captured [3].

2.2. Research Design and Methods

To investigate international students' cross-cultural adaptation and global competence in depth, this study employed a mixed-methods research design. On the quantitative side, a structured questionnaire was administered to measure students' performance across multiple dimensions of cross-cultural adaptation and global competence. The cross-cultural adaptation scale included three domains: academic adaptation, social adaptation, and psychological adaptation. The global competence scale measured dimensions such as cultural awareness, intercultural communication skills, global perspective, and cross-cultural problem-solving ability [4]. On the qualitative side, semi-structured interviews were conducted with a purposive subsample of participants to gain detailed insights into their cross-cultural adaptation experiences, strategies for overcoming challenges, and the developmental trajectory of their global competence. By integrating quantitative and qualitative methods, the study ensured both breadth of data collection and depth of individual experiences, thereby providing a richer understanding of the phenomena under investigation.

2.3. Data Collection and Analysis Procedures

Questionnaires were distributed via online platforms, with confidentiality and anonymity strictly maintained for all participants. Interviews were conducted with informed consent, recorded, and subsequently transcribed for analysis. Data analysis proceeded in three stages. First, descriptive statistics were employed to summarize the basic characteristics of the sample and the overall levels of cross-cultural adaptation and global competence across dimensions. Second, correlation and regression analyses were performed to examine the relationships and predictive effects of various cross-cultural adaptation dimensions on global competence, assessing their statistical significance. Third, qualitative content analysis was applied to interview transcripts through coding and thematic categorization, complementing the quantitative findings and providing illustrative examples. This multi-method analytical approach enabled a comprehensive presentation of international students' adaptation status and global competence levels while allowing for a nuanced exploration of the underlying mechanisms linking these constructs [5].

2.4. Validity and Limitations

To enhance the validity of the study, both the questionnaire and the interview guide were reviewed by subject-matter experts and pre-tested through a pilot survey to ensure reliability and measurement accuracy. Moreover, random sampling and multidimensional controls were applied to minimize potential sampling bias. Nevertheless, several limitations should be acknowledged. First, the sample was primarily drawn from selected countries and universities, which may limit the generalizability of the findings. Second, the data were predominantly self-reported, introducing the possibility of subjective bias. Finally, given the cross-sectional design of the study, it is not possible to fully capture the dynamic evolution of cross-cultural adaptation and global competence over time. Future research employing longitudinal designs could provide deeper insights into the temporal development and causal relationships between these constructs.

3. Results

3.1. Cross-Cultural Adaptation

Analysis of the questionnaire and interview data revealed significant differences in international students' cross-cultural adaptation across academic, social, and psychological dimensions. In terms of academic adaptation, the majority of students were able to adjust relatively quickly to course content and teaching methods; however, approximately 35% reported difficulties with classroom participation and academic writing, particularly among students from non-English-speaking countries. Regarding social adaptation, about

40% of students experienced challenges in establishing social relationships and integrating into campus culture, mainly due to language barriers, cultural differences, and limited social networks. In terms of psychological adaptation, roughly 25% of students reported varying degrees of anxiety or feelings of loneliness during the initial stage of studying abroad, with some experiencing culture shock and homesickness. Interview findings indicated that building supportive networks, actively participating in campus activities, and proactively learning about local culture were the primary strategies students employed to overcome adaptation challenges. Overall, the level of cross-cultural adaptation was closely associated with students' language proficiency, availability of social resources, and cultural background, highlighting the multifaceted nature of the adaptation process [6].

3.2. Global Competence Levels

Students' performance in global competence varied across different dimensions. Cultural awareness and intercultural communication skills were generally high, with more than 60% of students demonstrating an understanding of and respect for different cultures, as well as a degree of flexibility and adaptability in cross-cultural interactions. However, in terms of global perspective and cross-cultural problem-solving ability, some students still exhibited limitations, particularly lacking in-depth understanding of international affairs and systematic analytical skills. Comparisons across different student backgrounds revealed that undergraduate students tended to have weaker academic and problem-solving capabilities, whereas graduate students displayed higher levels of global competence. Interviews further suggested that participation in international exchange programs, academic discussions, and practical internships significantly enhanced students' global perspectives and their capacity to handle cross-cultural challenges.

3.3. Relationship Between Cross-Cultural Adaptation and Global Competence

Correlation analyses indicated significant positive relationships between the dimensions of cross-cultural adaptation and global competence. Academic adaptation had a notable effect on students' intercultural communication skills and problem-solving abilities, social adaptation significantly influenced cultural awareness and global perspective, and psychological adaptation was moderately positively correlated with overall global competence levels. Regression analyses further demonstrated that the overall level of cross-cultural adaptation could predict the development of global competence, with social and psychological adaptation playing particularly critical roles in explaining variance in global competence. Interview findings complemented these results, revealing that students who adapted well socially, psychologically, and cognitively to cultural contexts tended to exhibit higher levels of global competence and were more adept at resolving complex problems in cross-cultural settings.

3.4. Key Challenges and Potential Areas for Improvement

The findings also highlighted several challenges in the development of cross-cultural adaptation and global competence. Language barriers, cultural differences, insufficient social networks, and psychological stress were the most frequently encountered difficulties among international students. In addition, the lack of systematic cross-cultural training courses and practical opportunities within the educational environment limited further enhancement of students' global competence. These results suggest that universities have room for improvement in curriculum design, academic advising, and student support services. Specifically, institutions could increase opportunities for cross-cultural exchange, provide psychological counseling and social support, and encourage student participation in international projects and practical experiences. Such measures would help students comprehensively enhance their cross-cultural adaptation skills and global competence, thereby fostering their academic success and personal growth in an increasingly interconnected world.

4. Discussion

4.1. Theoretical Implications

The findings of this study provide significant empirical support for theories of cross-cultural adaptation and global competence. First, the results confirm the core role of the three dimensions of academic, social, and psychological adaptation in the development of international students. Academic adaptation not only directly affects students' learning efficiency and academic performance but also significantly enhances intercultural communication skills and problem-solving abilities. For example, interview data revealed that some students reported more effective expression and collaboration in team projects and cross-cultural initiatives after adapting to classroom discussion formats and academic writing conventions. Similarly, social and psychological adaptation are critical, as they directly influence global perspective and overall competence levels, indicating that students' abilities in cultural interaction, social network building, and psychological regulation strengthen their capacity to navigate complex international environments.

Second, this study integrates the concept of global competence with actual cross-cultural adaptation experiences, revealing the dynamic relationship between adaptation skills and competence development. This finding enriches the theoretical understanding of global competence and provides empirical evidence for talent development research in the context of higher education internationalization. Specifically, cross-cultural adaptation is not only a foundation for individual survival and growth but also a prerequisite for developing cross-cultural cognition, problem-solving ability, and a global perspective. This theoretical insight emphasizes the "adaptation-to-competence" pathway in educational research and offers a reference framework for constructing cross-cultural education models in the future.

Furthermore, the results highlight differences among students from diverse backgrounds in adaptation processes and competence development. For instance, undergraduate students exhibited lower global perspective and problem-solving abilities compared to graduate students, while students with higher language proficiency performed better in intercultural communication. These findings suggest significant individual differences in cross-cultural adaptation and global competence development, indicating that theoretical research should further consider background factors such as nationality, cultural distance, prior study abroad experience, and disciplinary field.

4.2. Practical Implications for University Education Management

The results of this study offer important implications for the management of international education in universities. First, institutions should provide systematic academic adaptation support for international students, including guidance on academic writing, classroom participation, learning strategies, and cross-cultural project management. The data show that approximately 35% of students still experience difficulties in academic adaptation; targeted support could substantially improve students' performance in class discussions, writing assignments, and collaborative projects.

Second, universities need to strengthen support for social adaptation. Organizing cultural exchange activities, student organizations, language corners, volunteer programs, and alumni networks can help students establish stable social networks, reducing feelings of isolation and culture shock. The study indicates that students with strong social adaptation exhibit significantly higher global competence than socially isolated peers.

Third, psychological adaptation is an essential component of international education. Cultural shock, emotional stress, and psychological discomfort during the early stages of studying abroad can adversely affect learning outcomes and overall well-being. Universities should therefore provide counseling services, peer support programs, cultural adaptation training, and crisis intervention mechanisms to enhance students' psychological resilience and cross-cultural adaptation capacity.

Moreover, institutions should consider differences among student subgroups, such as those with lower language proficiency, first-time study abroad undergraduates, or students from culturally distant backgrounds, and provide differentiated support strategies to improve the efficiency and equity of educational resources.

4.3. Practical Implications for Individual Student Development

The findings also have important implications for the personal development of students. First, students should actively engage in cross-cultural exchange and academic practice activities to enhance their global competence. Specific strategies include proactively learning about and respecting diverse cultural backgrounds, participating in classroom discussions and team projects, expanding social networks, seeking guidance from mentors and peers, and taking part in international exchanges, internships, and research projects. Interviews revealed that students who actively confronted cross-cultural challenges and utilized campus resources and international opportunities demonstrated markedly higher levels of global competence compared to those who adopted a passive approach.

Second, students should focus on improving psychological adjustment and cultural cognitive abilities. The study found that students with strong psychological adaptation skills integrated more rapidly into new environments and maintained composure and flexibility when facing cross-cultural conflicts, directly promoting the development of global competence. In addition, students are encouraged to enhance academic and language skills through multiple channels to provide a solid foundation for improving intercultural communication and problem-solving abilities.

4.4. Challenges and Recommendations for Improvement

Although the study demonstrates a positive relationship between cross-cultural adaptation and global competence, several challenges remain. Language barriers and cultural differences continue to be prevalent issues, with some students experiencing frustration in academic writing, classroom participation, and daily social interactions, affecting their confidence and engagement. Additionally, limited social resources and psychological pressure hinder students' adaptation and competence development. Students lacking friends or social support generally exhibited lower levels of global competence.

To address these challenges, universities could implement the following improvements:

- 1) Increase cross-cultural courses and practical projects: Provide cross-cultural team projects, international exchanges, and community service opportunities to allow students to develop adaptation skills and competence in real-world contexts.
- 2) Enhance psychological and social support systems: Offer counseling, peer mentoring, and cultural adaptation training to help students manage stress and establish supportive networks.
- 3) Implement differentiated educational strategies: Tailor guidance and resources based on students' language proficiency, cultural background, and academic level to maximize educational effectiveness.
- 4) Encourage proactive student engagement: Motivate students to participate in campus activities, international conferences, research internships, and other experiential opportunities to integrate cross-cultural adaptation with global competence development.

Through coordinated efforts by both universities and students, international students' cross-cultural adaptation and global competence can be effectively enhanced, laying a solid foundation for their academic success, personal growth, and future career development in an increasingly interconnected world.

5. Conclusion and Recommendations

5.1. Key Findings

Through a systematic investigation of international students' cross-cultural adaptation and global competence, this study arrived at the following key conclusions:

- 1) Cross-cultural adaptation significantly influences global competence. All three dimensions—academic adaptation, social adaptation, and psychological adaptation—positively correlate with global competence. Social and psychological adaptation, in particular, play a critical role in predicting global competence levels. Students with higher adaptation abilities demonstrate superior performance in intercultural communication, global perspective, and cross-cultural problem-solving.
- 2) Differences exist among students from diverse backgrounds. Undergraduate students generally show weaker academic adaptation and global perspective, whereas graduate students and those with higher language proficiency exhibit overall higher levels of global competence. Students from culturally distant backgrounds face more challenges in social and psychological adaptation.
- 3) Enhancing cross-cultural adaptation requires joint efforts by universities and students. Institutional support and resources, combined with students' active engagement in cross-cultural practice, together effectively foster the development of global competence.

These findings validate cross-cultural adaptation theory and enrich the empirical foundation of global competence research, emphasizing the pivotal role of adaptation abilities in international education and talent development.

5.2. Policy and Practical Recommendations—University Level

Based on the study findings, the following recommendations are proposed for universities to support international education, as summarized in Table 1.

Table 1. Recommendations for Supporting International Students' Adaptation in Higher Education.

Area	Recommendations	Expected Impact
Academic Support	Provide academic writing guidance, classroom participation training, and cross-cultural learning methodology courses	Enhance students' academic adaptation and performance
Social and Cultural Support	Organize cross-cultural exchange activities, student clubs, language corners, and volunteer programs	Build social networks and improve social adaptation
Psychological Support	Offer counseling services, peer mentoring, and cultural adaptation training	Reduce culture shock and stress, strengthen psychological adaptation
Differentiated Education	Provide tailored support according to students' language proficiency, disciplinary background, and cultural distance	Improve equity and effectiveness of educational resources

5.3. Policy and Practical Recommendations—Student Level

Students themselves should take proactive steps to enhance their cross-cultural adaptation and global competence:

- 1) **Actively engage in cross-cultural and academic activities:** Participation in classroom discussions, team projects, internships, and international exchanges can enhance intercultural communication skills and global perspective.

- 2) **Improve language and academic abilities:** Strengthening English or the host country language proficiency and mastering academic writing and research methods provides a solid foundation for cross-cultural problem-solving.
- 3) **Psychological adjustment and cultural understanding:** Actively learning about and respecting diverse cultures, building supportive networks, and developing psychological resilience help students cope with challenges during their study abroad experience.

Through proactive engagement and skill enhancement, students can more effectively leverage university resources to comprehensively improve both cross-cultural adaptation and global competence.

Research Limitations and Future Directions

Despite its contributions, this study has several limitations:

- 1) **Sample limitation:** Participants were primarily drawn from selected countries and universities, which may affect the generalizability of the findings.
- 2) **Methodological limitation:** Data relied largely on questionnaires and self-reports, which may introduce subjective bias.
- 3) **Temporal limitation:** The cross-sectional design precludes observation of long-term development trends in cross-cultural adaptation and global competence.

Future research could address these limitations by:

- 1) Conducting longitudinal studies to track the evolution of students' cross-cultural adaptation and global competence over time.
- 2) Expanding sample coverage to include more countries and educational systems, thereby increasing generalizability.
- 3) Exploring how disciplinary background, cultural background, and gender differences influence the mechanisms of cross-cultural adaptation and global competence development.

In summary, cross-cultural adaptation is a critical foundation for the development of global competence among international students, and universities and students should establish a reciprocal, interactive mechanism. Through systematic educational management, differentiated support, and proactive student engagement, international students' academic, social, and psychological adaptation can be effectively enhanced, thereby comprehensively improving their cross-cultural communication skills, global perspective, and cross-cultural problem-solving abilities. The research indicates that cross-cultural adaptation is not only a guarantee for successful study abroad experiences but also a core element in cultivating internationally competent talent and developing global competence, laying a solid foundation for students' academic progress, personal growth, and future career development.

References

1. Q. Meng, C. Zhu, and C. Cao, "Chinese international students' social connectedness, social and academic adaptation: The mediating role of global competence," *Higher Education*, vol. 75, no. 1, pp. 131–147, 2018.
2. E. Zylkiewicz-Plonska and E. Acienė, "The need for creating and developing intercultural competences among international students," *Tiltai: Socialiniai Mokslai*, no. 2, pp. 89–107, 2014.
3. L. Sheng, J. Dai, and J. Lei, "The impacts of academic adaptation on psychological and sociocultural adaptation among international students in China: The moderating role of friendship," *International Journal of Intercultural Relations*, vol. 89, pp. 79–89, 2022.
4. W. T. Gebregers and C. Csukonyi, "Unveiling psychological and sociocultural adaptation patterns of international students in Hungary," *Journal of International Students*, vol. 15, no. 4, pp. 97–118, 2025.
5. W. Xue and M. K. M. Singh, "Unveiling the academic, sociocultural, and psychological adaptation challenges of Chinese international students in Malaysia: A systematic review," *Journal of International Students*, vol. 15, no. 2, pp. 69–86, 2025.
6. F. Trede, W. Bowles, and D. Bridges, "Developing intercultural competence and global citizenship through international experiences: Academics' perceptions," *Intercultural Education*, vol. 24, no. 5, pp. 442–455, 2013.

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