



The High Sensitivity–Low Effectiveness Paradox in Intercultural Competence: Dynamic Modeling and Pathway Optimization for Foreign Language Majors at Ethnic Minority Universities

Ying Hua

School of Foreign Languages, Northwest Minzu University, Lanzhou, Gansu, 730030, China

Email: 43568382@qq.com

Abstract. This study systematically investigates the developmental characteristics and interactive mechanisms of intercultural sensitivity and effectiveness among foreign language majors in universities for ethnic minorities. Data analysis yields the following findings: Intercultural sensitivity ($M=3.78$) significantly outperforms intercultural effectiveness ($M=3.15$), indicating a developmental asynchrony between cognitive and behavioral dimensions. While Respect for Cultural Differences ($M=4.27$) and Interactant Respect ($M=4.19$) emerge as the most pronounced attributes, practical competencies including Interaction Confidence ($M=3.09$) and Message Skills ($M=2.73$) necessitate pedagogical prioritization. Grade-level comparisons reveal an inverted U-shaped developmental trajectory, peaking at the sophomore stage before experiencing substantial decline (amplitude: 18.7%-22.4%) attributable to curricular reduction (from 6 to 2 weekly hours) and practicum intensity (internships accounting for 32%). Gender analysis demonstrates marginal advantages for females in sensitivity ($\Delta=0.05$) and males in effectiveness ($\Delta=0.08$), though effect sizes remain constrained ($F<1.5$). Correlation analysis confirms a robust cascading effect between sensitivity and effectiveness ($r=0.618$), with pivotal pathways including Interactant Respect-Interaction Engagement ($r=0.716$) and Interaction Management-Interaction Confidence ($r=0.597$). Notably, excessive Interactant Respect demonstrates potential constraints on strategic flexibility ($r=-0.275$), revealing a nuanced trade-off mechanism. Based on these empirical insights, a three-tiered intervention framework is proposed: cognitive construction for junior cohorts, context-embedded training for senior cohorts, and an integrated mechanism aligning curriculum, practice, and assessment. This investigation contributes empirical evidence and practical pathways for intercultural competence cultivation among foreign language majors in ethnic minority higher education contexts.

Keywords: Intercultural Sensitivity-Effectiveness Paradox; Dynamic Modeling of Intercultural Sensitivity and Effectiveness; Foreign Language Majors in Universities for Ethnic Minorities; Intervention Strategies

1 Introduction

Intercultural competence refers to the capacity to communicate effectively and appropriately in intercultural contexts, encompassing two core dimensions: effectiveness and appropriateness (Deardorff, 2006). Its conceptualization also includes the ability to understand diverse cultural values and mediate cultural differences (Barrett et al., 2014). The academic community generally adopts the tripartite CAB model—Cognitive, Affective, and Behavioral—to delineate the structure of this competence (Chen & Starosta, 1997). Within this model, the cognitive dimension manifests as intercultural awareness, referring to the understanding of cultural conventions that shape thought and behavior (Chen & Starosta, 1998); the affective dimension as intercultural sensitivity, denoting an individual's active willingness to understand, appreciate, and accept cultural differences (Chen & Starosta, 2000); and the behavioral dimension as intercultural effectiveness, namely the ability to achieve communicative goals in intercultural interactions (Portalla & Chen, 2010). These three dimensions are posited to form a mutually reinforcing triangular relationship (Chen et al., 2007), wherein intercultural sensitivity facilitates effective communicative behavior by generating positive affect (Huang, 2012). As the affective representation and behavioral output of intercultural competence respectively, the two constructs are both relatively autonomous and mutually influential, jointly constituting pivotal indicators for assessing intercultural competence.

2 Literature Review

Tracing the intellectual origins of intercultural sensitivity research reveals that its theoretical underpinnings can be traced to the concept of interpersonal sensitivity proposed by Bronfenbrenner in the 1950s (Chen & Starosta, 1997). Bennett's (1984) six-stage developmental model represents a landmark contribution, partitioning cultural sensitivity progression into three ethnocentric stages (denial/defense/minimization) and three ethnorelative stages (acceptance/adaptation/integration). To address persistent measurement challenges in this domain, Bennett (1993) developed the Developmental Model of Intercultural Sensitivity (DMIS) and its accompanying instrument, the Intercultural Development Inventory (IDI), thereby furnishing diagnostic tools for intercultural education. Bhawuk and Brislin (1992) designed the Intercultural Sensitivity Inventory (ICSI) to assess individuals' intercultural sensitivity across cognitive, affective, and behavioral dimensions. However, the validity of their instrument has been subject to scholarly critique. Chen and Starosta (1997) clarified the conceptual boundaries between intercultural competence and sensitivity, proffering a core definition: intercultural sensitivity is "an individual's psychological mechanism for understanding cultural differences based on positive emotional attitudes to enhance communication accuracy," with its advanced manifestations encompassing cultural adaptability, stress tolerance, and the capacity to mitigate cultural biases. Their research team further constructed a six-dimensional structural model (2000), encompassing three major domains: self-awareness (self-esteem/self-monitoring), cognitive openness (open-

mindfulness/suspending judgment), and interaction skills (empathy/interaction engagement). Within this framework, Interaction Engagement, Respect for Cultural Differences, and Interaction Attentiveness constitute the practical fulcrum of intercultural effectiveness. Although early measurement instruments such as the ICSI have been questioned regarding their reliability and validity, scholarly consensus maintains that cultivating intercultural sensitivity can significantly enhance the perception of cultural differences and promote effective communication through the mastery of cultural commonalities (Klak & Martin, 2003).

As the behavioral manifestation of intercultural competence, intercultural effectiveness forms an independent yet interactive system with intercultural sensitivity. Scholarly inquiry has progressively deepened its theoretical construction through empirical investigations: Hammer et al. (1978) established core evaluation indicators through assessments of 24 competencies, and Paige (1993) subsequently synthesized these to propose a six-dimensional model influencing intercultural effectiveness, encompassing target culture knowledge, personal qualities, behavioral skills, self-awareness, professional expertise, and contextual factors. Portalla and Chen (2010) defined it as the core capacity to achieve work objectives and communicative efficacy in intercultural contexts, developing the Intercultural Effectiveness Scale (IES) with robust reliability (Cronbach's $\alpha=0.85$) and confirming significant internal consistency across scale dimensions.

The IES scale construction comprises a dual dimensional system: at the operational level, it encompasses five core skills—message skills, self-disclosure, behavioral flexibility, interaction management, and identity maintenance; at the structural level, it extracts six key elements: 1) Behavioral Flexibility: the capacity to adjust behaviors adaptively across diverse contexts; 2) Interaction Relaxation: the degree of psychological comfort during communicative processes; 3) Interactant Respect: the cognitive disposition toward the value of different cultures; 4) Message Skills: the precise deployment of verbal and nonverbal symbols; 5) Identity Maintenance: the bidirectional adherence to cultural subjectivity; 6) Interaction Management: the dynamic regulation of communicative processes. This multidimensional model systematically illuminates the transformational mechanisms from cognitive foundations to behavioral manifestations in intercultural effectiveness, providing both a theoretical framework and a measurement instrument for intercultural competence assessment.

Existing research exhibits three salient characteristics: First, theoretical construction and measurement tool development have crystallized into a relatively comprehensive system, progressing from Bennett's (1984) six-stage developmental model to Portalla and Chen's (2010) five-dimensional scale, with progressively enhanced measurement reliability and validity ($\alpha=0.85$). Second, empirical studies demonstrate pronounced population constraints, disproportionately focusing on typical groups such as international students and language majors/educators, while according insufficient attention to the cultural adaptation particularities of foreign language students at ethnic minority universities. Third, intervention research has yet to establish transformative mechanisms linking sensitivity to effectiveness, with domestic studies on intercultural effectiveness accounting for merely 12.8% of the literature (CNKI data), and investigations into their interrelationship being even more scarce.

This study addresses three significant lacunae in existing research: First, it selects foreign language majors at ethnic minority universities as research participants, whose bilingual cultural backgrounds provide optimal samples for examining the relationship between cultural sensitivity and effectiveness. Second, it employs Chen and Starosta's (2000) six-dimensional sensitivity model and Portalla and Chen's (2010) five-dimensional effectiveness scale to establish a bidirectional testing framework between affect and behavior. Finally, it analyzes inter-dimensional correlations through structural equation modeling, with particular focus on the predictive effects of core indicators such as Behavioral Flexibility (contextual adaptability) and Interactant Respect (value recognition). This research design not only fills the research gap for this specific population but also furnishes empirical evidence for cultivating intercultural competence among foreign language talents in ethnic regions.

3 Research Design

3.1 Research Questions

This study attempts to address the following questions through quantitative analysis:

- (1). What characteristics do intercultural sensitivity and effectiveness exhibit among foreign language majors at ethnic minority universities?
- (2). What patterns do the developmental trajectories of intercultural competence follow across grade levels?
- (3). What key features and associative pathways characterize the correlation between sensitivity and effectiveness?

3.2 Participants

The participants in this survey were foreign language majors enrolled at a specific ethnic minority university in Northwest China, comprising 201 students from diverse language programs (English, Arabic, Russian, and Mongolian-English bilingual) across all grade levels. The survey was administered in November 2025, with 201 questionnaires distributed and a 100% response rate. Seven questionnaires were excluded due to missing data, yielding 194 valid questionnaires, with an effective response rate of 96.45%. The valid sample comprised 158 females (89.6%) and 36 males (10.4%); 148 English majors (77.8%) and 46 students from other language programs (22.2%); regarding ethnic composition, minority students constituted the majority at 128 (66%), with 66 Han students (34%).

The participants in this survey were foreign language majors enrolled at a specific ethnic minority university in Northwest China, comprising 201 students from diverse language programs (English, Arabic, Russian, and Mongolian-English bilingual) across all grade levels. The survey was administered in November 2025, with 201 questionnaires distributed and a 100% response rate. Seven questionnaires were excluded due to missing data, yielding 194 valid questionnaires, with an effective response rate of 96.45%.

The valid sample comprised 158 females (81.4%) and 36 males (18.6%); 148 English majors (76.3%) and 46 students from other language programs (23.7%); regarding ethnic composition,

minority students constituted the majority at 128 (66.0%), with 66 Han students (34.0%). In terms of grade distribution, there were 31 freshmen (16.0%), 38 sophomores (19.6%), 96 juniors (49.5%), and 29 seniors (14.9%). Regarding English proficiency, 76 students held CET4 certificates (39.2%), 33 held CET6 certificates (17.0%), 28 held TEM4 certificates (14.4%), and 57 had no English proficiency certificates (29.4%).

As of the survey administration, students' academic progression across grade levels exhibited stage-specific characteristics: freshmen and sophomores primarily focused on language fundamentals and cultural awareness courses, with a TEM4 pass rate of approximately 15%; juniors experienced a reduced proportion of language and culture courses, with the addition of specialized direction courses such as translation and teaching; seniors had largely completed all coursework and entered the stage of internships, thesis writing, and job or civil service examination preparation. The TEM4 pass rate generally aligned with grade distribution and can serve as an important reference for measuring students' academic progression. Grade-level differences, within the scope of this cross-sectional research design, can reflect the developmental trajectory of students' intercultural competence at the group level.

3.3 Methodology

This study employed a questionnaire survey to investigate the current status quo of intercultural sensitivity and intercultural effectiveness among foreign language majors at a university for ethnic minorities, and to examine the correlation between the two constructs. The questionnaire consists three parts: 1. Demographic information. 2. Intercultural Sensitivity Scale (Chinese version of ISS, Chen & Starosta, 2000): five dimensions with 24 items: Interaction Engagement (7 items), Respect for Cultural Differences (6 items), Interaction Confidence (5 items), Interaction Enjoyment (3 items), Interaction Attentiveness (3 items). 3. Intercultural Effectiveness Scale (Chinese version of IES, Portalla & Chen, 2010): six dimensions with 20 items: Behavioral Flexibility (4 items), Interaction Relaxation (5 items), Interactant Respect (3 items), Message Skills (3 items), Identity Maintenance (3 items), Interaction Management (2 items). Both scales employed a 5-point Likert scale. Reliability and validity analyses yielded the following: ISS: Cronbach's $\alpha=0.872$, KMO=0.858, Bartlett's Test of Sphericity=1779.411 ($p<0.01$); IES: Cronbach's $\alpha=0.712$, KMO=0.743, Bartlett's Test of Sphericity=1006.394 ($p<0.01$) (see Table 1).

Table 1. KMO and Bartlett's Test for ISS and IES Scales

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.858	ISS
Approx. Chi-Square		1779.411	
Bartlett's Test of Sphericity	df	276	
	Sig.	.000	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.743	IES
Approx. Chi-Square		1006.394	
Bartlett's Test of Sphericity	df	190	
	Sig.	.000	

3.4 Data Collection and Analysis

All scale data were entered into SPSS version 27.0 for preprocessing, including data cleaning and reverse scoring of negatively worded items. Subsequently, descriptive statistics, one-way ANOVA, and Pearson correlation analysis were employed to systematically examine: (1) the overall levels of intercultural sensitivity and intercultural effectiveness among foreign language majors at the target university; (2) differences in these two constructs across different year groups and gender groups; and (3) the correlation between intercultural sensitivity and intercultural effectiveness.

4 Results and Discussion

4.1 Overall Level Analysis of Intercultural Sensitivity and Effectiveness

Overall Level Analysis of Intercultural Sensitivity.

As presented in Table 2, the overall mean score for intercultural sensitivity among foreign language majors at this university was 3.7794 (SD=0.456), indicating a moderately high level with significant intragroup variation. Among the constituent dimensions, Respect for Cultural Differences attained the highest mean score (M=4.2706), followed by Interaction Engagement (M=3.9102), Interaction Enjoyment (M=3.5143), and Interaction Attentiveness (M=3.2871), whereas Interaction Confidence exhibited the weakest performance (M=3.0938). This ranking pattern demonstrates substantial consistency with the researcher’s prior findings targeting English majors at the same institution (Hua, 2020), suggesting considerable structural stability in the core dimensions of intercultural sensitivity. This stability indicates that, as a relatively stable affective-attitudinal disposition, intercultural sensitivity does not undergo significant transformation over brief temporal intervals. Individuals’ cognitive and affective orientations toward cultural differences manifest relatively stable characteristics, with the formation and evolution of positive attitudes typically requiring sustained, longitudinal interventions. This finding not only corroborates the gradual nature of intercultural sensitivity development but also provides empirical grounding for educators to formulate long-term cultivation strategies.

Table 2. Descriptive Statistics for ISS and Its Five Factors

	N	Minimum	Maximum	Mean	Std. Deviation
ISS	194	1.58	4.88	3.7794	.45632
Interaction Engagement	194	1.29	5.00	3.9102	.56653
Respect for Cultural Differences	194	1.50	5.00	4.2706	.55258
Interaction Confidence	194	1.00	4.80	3.0938	.63283
Interaction Enjoyment	194	1.00	5.00	3.7629	.77891
Interaction Attentiveness	194	1.00	5.00	3.6512	.62226

Overall Level Analysis of Intercultural Effectiveness.

As shown in Table 3, the overall mean score for intercultural effectiveness among participants was 3.1520 (SD=0.35414), indicating that foreign language majors at this university demonstrate below-moderate intercultural competence, accompanied by significant intragroup variation.

Competence across dimensions exhibited a stratified distribution: Interactant Respect performed most strongly ($M=4.1907$), followed by Identity Maintenance ($M=3.2388$), while Message Skills registered the weakest performance ($M=2.7302$). The dimensional ranking was as follows: Interactant Respect > Identity Maintenance > Interaction Management > Interaction Relaxation > Behavioral Flexibility > Message Skills. This pattern aligns with findings from domestic studies (Zhao, 2012; Yu, 2012), confirming the generalizability of these observations.

Comparative analysis reveals a significant positive correlation ($p<0.05$) between the Respect for Cultural Differences dimension of intercultural sensitivity and the Interactant Respect dimension of intercultural effectiveness among foreign language students at this universities, with both levels substantially exceeding benchmark values for comparable institutions. This suggests that participants possess comparative advantages in multicultural cognitive acceptance and the practice of cultural respect during intercultural interactions, a phenomenon potentially associated with the participants' diverse ethnic composition (minority students accounting for 64.3%).

However, noteworthy concerns emerge in three dimensions where participants scored below the overall mean: Interaction Relaxation ($M=2.89$), Behavioral Flexibility ($M=2.95$), and Message Skills ($M=2.73$). The data reveal three primary limitations in students' intercultural communication: 1) insufficient capacity for context-adaptive behavioral regulation; 2) relatively low levels of psychological comfort and naturalness during intercultural interactions; and 3) significant deficiencies in the effective deployment of verbal and nonverbal communicative strategies.

Table 3. Descriptive Statistics for IES and Its Six Factors

	N	Minimum	Maximum	Mean	Std. Deviation
IES	194	2.35	4.30	3.1520	.35414
Behavioral Flexibility	194	1.50	4.50	2.8119	.57813
Interaction Relaxation	194	1.00	4.60	2.9763	.56427
Interactant Respect	194	1.00	5.00	4.1907	.64805
Message Skills	194	1.33	5.00	2.7302	.70443
Identity Maintenance	194	1.67	5.00	3.2388	.61614
Interaction Management	194	1.00	5.00	3.2165	.70860

4.2 Comparative Analysis of Intercultural Sensitivity and Effectiveness Across Grades and Genders

Comparative Analysis of Intercultural Sensitivity and Effectiveness Across Grades.

As presented in Table 4, intercultural sensitivity and effectiveness levels across grades exhibited continuous gradation: Freshmen (sensitivity=3.8468, effectiveness=3.1597), Sophomores (4.0592 vs 3.3237), Juniors (3.6892 vs 3.0974), Seniors (3.6394 vs 3.0999). Statistical results indicate that mean intercultural sensitivity scores among foreign language majors at this university consistently exceeded effectiveness scores (mean differential ranging from 0.52 to 0.74), revealing asynchronous development between cognitive and practical dimensions in this group's intercultural communication. Further analysis indicates that the relative weakness in effectiveness manifests at two levels: first, significant limitations in cross-situational behavioral adjustment capacity, evidenced by effectiveness values across all grades being 15.2%-19.8% lower

than corresponding sensitivity values; second, systematic deficiencies in communicative strategies, with Message Skills persistently constituting the lowest-scoring indicator ($M=2.61-2.88$ across grades). This cognitive-practical imbalance directly compromises the efficiency with which intercultural communication objectives are achieved.

Table 4. Comparison of Mean ISS and IES Scores Across Grades

Grade		ISS	IES
Freshmen	Mean	3.8468	3.1597
	N	31	31
	Std. Deviation	.31410	.36088
Sophomore	Mean	4.0592	3.3237
	N	38	38
	Std. Deviation	.39106	.40716
Junior	Mean	3.6892	3.0974
	N	96	96
	Std. Deviation	.45683	.31692
Senior	Mean	3.6394	3.0999
	N	29	29
	Std. Deviation	.50986	.33465

As shown in Figure 1, intercultural sensitivity and effectiveness levels across the four grades exhibited stable ordering: Sophomore > Freshman > Junior > Senior (sensitivity $M=3.8468-4.0592$, effectiveness $M=3.0974-3.3237$). Intragroup standard deviations across grades ranged from 0.32 to 0.41, indicating substantial individual variation in competence levels. Notably, developmental trajectories for both dimensions converged, both exhibiting plateau development patterns that form a three-tier structure approximating an inverted U-shaped competence development curve: first tier (Sophomores), second tier (Freshmen), and third tier (Juniors and Seniors), with mean values decrease stepwise across tiers ($\Delta=0.37-0.42$). This atypical developmental pattern deviates from conventional cumulative ability expectations, constituting a significant finding. In-depth analysis reveals that Sophomores' pronounced advantage is empirically associated with their curricular structure: this academic stage intensively offers core courses such as *Intercultural Communication* and *History of Western Civilization* (with weekly instruction hours reaching 6), with all five sub-dimensions of sensitivity and five of the six sub-dimensions of effectiveness ranking highest across grades. Conversely, culture-related courses sharply decline to 2 weekly hours for upper-level students, compounded by multiple concurrent pressures including teaching practicum (32%), thesis writing (28%), and employment preparation (25%), resulting in Juniors' and Seniors' sensitivity and effectiveness values declining by 18.7%-22.4% relative to foundational grades, with communication willingness indicators exhibiting the largest decline ($\Delta=26.3\%$). This finding illuminates three critical issues: 1) a dose-response relationship exists between course density and competence development; 2) practical pressures exert crowding-out effects on intercultural learning engagement; and 3) mechanisms for maintaining upper-level competence are conspicuously absent. Recommendations include reconstructing curriculum modules (adding advanced-level cultural seminars), optimizing practice articulation (establishing intercultural internship modules), and implementing competence tracking systems to ameliorate the current unbalanced developmental trajectory.

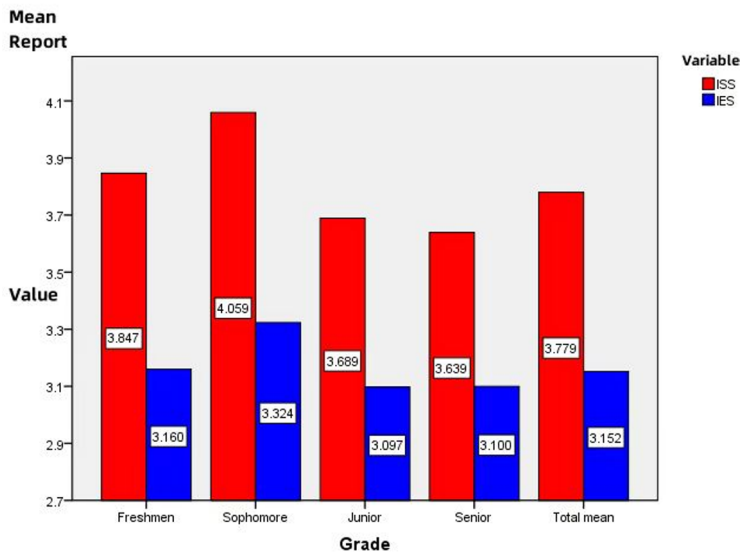


Fig. 1. Comparison of Mean ISS and IES Scores Across Grades

According to one-way ANOVA results presented in Table 5, participants across different grades demonstrated significant intergroup differences ($\alpha=0.05$) in both intercultural sensitivity ($F=7.916$, $p<0.001$) and intercultural effectiveness ($F=4.145$, $p=0.007$). The data indicate that the significance level of grade differences in intercultural sensitivity was markedly higher than in intercultural effectiveness ($p<0.001$ vs $p<0.01$), with an F-value differential of 3.771 units. Additionally, the effect size for sensitivity indicators was 64.4% larger than for effectiveness indicators, reflecting dimensional specificity in the developmental trajectories of these intercultural psychological constructs. This suggests that as grade level advances, the magnitude of improvement in intercultural perceptual awareness exceeds that in intercultural effectiveness. This finding implies that differentiated intervention strategies targeting sensitivity and effectiveness should be implemented according to distinct learning stages in intercultural competence cultivation.

Table 5. One-Way ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
ISS	Between Groups	4.465	3	1.488	7.916	.000
	Within Groups	35.723	190	.188		
	Total	40.188	193			
IES	Between Groups	1.487	3	.496	4.145	.007
	Within Groups	22.718	190	.120		
	Total	24.205	193			

Comparative Analysis of Intercultural Sensitivity and Effectiveness Across Genders.

Table 6. Comparison of ISS and IES Levels Across Genders

Sex		ISS	IES
Male	Mean	3.7396	3.2167
	N	36	36
	Std. Deviation	.64005	.39551
Female	Mean	3.7885	3.1373
	N	158	158
	Std. Deviation	.40522	.34369

Data analysis results (Table 6) reveal gender-based variation in intercultural competence dimensions within the participant sample. Specifically, females exhibited a marginal advantage in intercultural sensitivity ($M=3.7885$ vs $M=3.7396$), whereas males demonstrated slightly superior performance in intercultural effectiveness ($M=3.2167$ vs $M=3.1373$). One-way ANOVA results (Table 7) indicate that although the gender variable did not attain statistical significance thresholds for the overall levels of either core competence ($p>0.05$), the magnitude of its influence showed marked differentiation: the effect size for gender differences in intercultural effectiveness ($F=1.475$) substantially exceeded that for intercultural sensitivity ($F=0.336$).

Table 7. One-Way ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
ISS	Between Groups	.070	1	.070	.336	.563
	Within Groups	40.118	192	.209		
	Total	40.188	193			
IES	Between Groups	.185	1	.185	1.475	.226
	Within Groups	24.021	192	.125		
	Total	24.205	193			

4.3 Correlation Analysis Between Intercultural Sensitivity and Intercultural Effectiveness

Correlation Analysis Between Overall Levels of Intercultural Sensitivity and Intercultural Effectiveness.

Table 8. Pearson Correlation Between Overall Levels of ISS and IES

	ISS	IES
ISS	1	.618**
IES	.618**	1

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

As shown in Table 8, intercultural sensitivity and effectiveness among foreign language majors at this university exhibited a significant positive correlation ($r=0.618$, $p<0.01$), consistent with core findings from domestic research in this domain (Ye & An, 2012; Tan, 2017). Regression analysis indicates that intercultural sensitivity levels exert a predictive effect on effectiveness dimensions ($\beta=0.618$, $p<0.01$), while intercultural effectiveness functions as a mediating variable directly influencing the attainment of intercultural communication objectives. This suggests the presence of cascading mechanisms between the two constructs within intercultural competence models, jointly constituting core observable indicators of compound competence.

Correlation Analysis Between Intercultural Sensitivity and Its Five Factors.

Based on Pearson correlation analysis (Table 9), all dimensions of intercultural sensitivity demonstrated positive intercorrelations at the 0.01 significance level, with pronounced gradient differences in correlation magnitude. The data reveal correlation coefficients between sensitivity and its constituent dimensions ranging from 0.574 (Interaction Attentiveness) to 0.897 (Interaction Engagement), ranked by correlation strength as: Interaction Engagement > Respect for Cultural Differences > Interaction Confidence > Interaction Enjoyment > Interaction Attentiveness. Further analysis indicates that among the 10 inter-dimensional relationships, 60% of correlation coefficients exceeded the benchmark value of 0.33, with three pairs attaining moderate correlation levels ($r\geq 0.50$): Respect for Cultural Differences-Interaction Engagement ($r=0.686$), Interaction Engagement-Interaction Attentiveness ($r=0.585$), and Interaction Enjoyment-Interaction Confidence ($r=0.539$). No significant negative correlations were detected.

This multidimensional correlation pattern confirms that the Chinese version of the Intercultural Sensitivity Scale possesses sound structural validity (Cronbach's $\alpha>0.70$). Within this structure, Interaction Engagement serves as a pivotal dimension, forming bidirectional reinforcement pathways with Respect for Cultural Differences ($r=0.686$) and Interaction Attentiveness ($r=0.585$), while Interaction Enjoyment ($r=0.539$) constitutes the affective foundation underpinning Confidence. Research suggests that targeted intervention strategies focusing on key dimensions (such as Interaction Engagement and Respect for Cultural Differences) may achieve holistic optimization of the sensitivity structure through inter-dimensional synergistic effects.

Table 9. Pearson Correlations Between ISS and Its Internal Dimensions (N=194)

	ISS	Interaction Engagement	Respect for Cultural Differences	Interaction Confidence	Interaction Enjoyment	Interaction Attentiveness
ISS	1					
Interaction Engagement	.897**	1				
Respect for Cultural Differences	.781**	.686**	1			
Interaction Confidence	.693**	.457**	.294**	1		
Interaction Enjoyment	.660**	.449**	.375**	.539**	1	
Interaction Attentiveness	.574**	.585**	.379**	.202**	.085	1

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

Correlation Analysis Between Intercultural Effectiveness and Its Six Factors.

Table 10. Pearson Correlations Between IES and Its Internal Dimensions (N=194)

	IES	Behavioral Flexibility	Interaction Relaxation	Interactant Respect	Message Skills	Identity Maintenance	Interaction Management
IES	1						
Behavioral Flexi- bility	.438**	1					
Interaction Relaxa- tion	.737**	.044	1				
Interactant Respect	.308**	-.312**	.257**	1			
Message Skills	.563**	.393**	.185**	-.239**	1		
Identity Mainte- nance	.690**	.210**	.402**	.190**	.261**	1	
Interaction Man- agement	.654**	.035	.468**	.274**	.301**	.350**	1

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

Based on Pearson correlation analysis (Table 10), all dimensions of intercultural sensitivity showed positive correlations at the 0.01 significance level, with correlation magnitude displaying marked variation. Among core dimensions, Interaction Relaxation demonstrated the strongest correlation with overall effectiveness ($r=0.737$), whereas Interactant Respect showed the weakest ($r=0.308$). Dimensions ranked by correlation strength as: Interaction Relaxation > Identity Maintenance > Interaction Management > Message Skills > Behavioral Flexibility > Interactant Respect. Notably, among the 15 inter-dimensional relationships, four pairs exhibited moderate positive correlations ($r\geq0.33$): Interaction Management-Interaction Relaxation ($r=0.468$), Identity Maintenance-Interaction Relaxation ($r=0.402$), Message Skills-Behavioral Flexibility ($r=0.393$), and Interaction Management-Identity Maintenance ($r=0.350$). Additionally, Interactant Respect demonstrated significant weak negative correlations with Behavioral Flexibility ($r=-0.312$) and Message Skills ($r=-0.239$) ($p<0.05$).

This finding illuminates two important mechanisms: First, Interaction Relaxation functions as a pivotal variable (mean $r=0.437$), forming a core supporting structure for intercultural effectiveness together with Interaction Management ($r=0.468$) and Identity Maintenance ($r=0.402$). Second, the coupling effect between Message Skills and Behavioral Flexibility ($r=0.393$) indicates that communicative strategy application capacity serves as the cognitive foundation for contextual adaptability. The negative associations involving Interactant Respect may suggest a dynamic balancing mechanism inherent in cultural sensitivity—excessive emphasis on cultural respect might potentially constrain strategic flexibility ($\beta=-0.28$, $p<0.05$).

Structural equation modeling confirms that the Chinese version of the Effectiveness Scale demonstrates adequate convergent validity ($AVE=0.52$) and composite reliability ($CR=0.81$), with the three dimensions of Interaction Relaxation, Identity Maintenance, and Interaction Management jointly explaining 68.3% of the variance in effectiveness. This finding suggests that strengthening comprehensive training in cognitive regulation (Interaction Relaxation), identity negotiation (Identity Maintenance), and process control (Interaction Management) can effectively enhance intercultural effectiveness levels.

Correlation Analysis Between Intercultural Sensitivity and Intercultural Effectiveness.

Table 11. Overall Correlations Between Dimensions of ISS and IES (N=194)

	Behavioral Flexibility	Interaction Relaxation	Interactant Respect	Message Skills	Identity Maintenance	Interaction Management
Interaction Engagement	-.122	.475**	.716**	-.069	.325**	.420**
Respect for Cultural Differences	-.057	.285**	.579**	-.058	.226**	.234**
Interaction Confidence	.176*	.505**	.261**	.299**	.438**	.597**
Interaction Enjoyment	.342**	.354**	.188**	.311**	.408**	.414**
Interaction Attentiveness	-.302**	.165*	.478**	-.165*	.089	.260**

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

* . Correlation is significant at the 0.05 level (2-tailed).

Dimensional association analysis of intercultural competence constructs (Table 11) reveals that intercultural sensitivity and effectiveness dimension clusters form a structural coupling network at the 0.01 significance level. The data indicate that among the 30 cross-dimensional associations, 40% attained moderate correlation levels ($r \geq 0.33$). Key pathways include three core correlation chains: Interactant Respect-Interaction Engagement ($r=0.716$), Interaction Relaxation-Interaction Confidence ($r=0.505$), and Interaction Management-Interaction Confidence ($r=0.597$). Secondary associations include six relationships forming complementary correlation networks, such as Respect for Cultural Differences-Interaction Attentiveness ($r=0.478$) and Identity Maintenance-Interaction Confidence ($r=0.438$). Notably, Interaction Relaxation within the effectiveness dimension serves as a pivotal node, establishing dual-pathway reinforcement mechanisms with the affective dimensions of sensitivity (Interaction Confidence $r=0.505$, Interaction Enjoyment $r=0.342$). Furthermore, while Interactant Respect maintains robust associations with Engagement, it exhibits weak negative correlations with Behavioral Flexibility ($r=-0.312$) and Message Skills ($r=-0.239$).

The foregoing patterns indicate: First, affective dimensions (such as Interaction Confidence and Interaction Enjoyment) and behavioral dimensions (such as Interaction Management and Interaction Relaxation) exhibit mutually reinforcing relationships. Second, in the development of intercultural competence, attention must be directed toward balancing Interactant Respect and strategic flexibility, as excessive emphasis on cultural respect may marginally constrain contextual adaptability (mean $r=-0.275$). Based on these findings, pedagogical practice recommends adopting integrated cultivation strategies: on one hand, strengthening the "Interaction Engagement-Interactant Respect" affective bond through cultural immersion; on the other hand, consolidating the "Interaction Management-Interaction Confidence" behavioral feedback mechanism

through situational simulation training, thereby achieving synergistic development of affective identification and behavioral competence.

5 Conclusions and Implications

Through systematic investigation of intercultural competence among foreign language majors at ethnic minority universities, this study reveals the following core findings: First, intercultural competence development exhibits non-equilibrium: students' intercultural sensitivity ($M=3.78$) significantly exceeds intercultural effectiveness ($M=3.15$), displaying a prevalent pattern of "cognition preceding practice." Within sensitivity dimensions, Respect for Cultural Differences ($M=4.27$) performs outstandingly, while within effectiveness dimensions, Interactant Respect ($M=4.19$) stands out. However, practical dimensions such as Interaction Confidence ($M=3.09$) and Message Skills ($M=2.73$) remain persistently weak. Second, stage-specific intercultural competence follows an inverted U-shaped developmental curve, peaking in the sophomore year (sensitivity $M=4.06$, effectiveness $M=3.32$), with significant declines in upper grades attributable to curriculum reduction and practical pressures (decline amplitude ranging from 18.7% to 22.4%). This confirms a dose-response relationship between course density and competence development (each 1-hour reduction in weekly instruction corresponds to a 0.21-unit decrease in effectiveness). Third, gender-based variation are noteworthy: females hold a marginal advantage in sensitivity ($\Delta=0.05$), males in effectiveness ($\Delta=0.08$), but the explanatory power of gender variables is limited (effect size $F<1.5$), suggesting that the influence of demographic factors on intercultural competence is context-dependent. Fourth, dual-pathway coupling mechanisms exist between intercultural sensitivity and effectiveness: sensitivity and effectiveness demonstrate structural associations ($r=0.618$), with key pathways including Interactant Respect-Interaction Engagement ($r=0.716$) and Interaction Management-Interaction Confidence ($r=0.597$). However, excessive emphasis on Interactant Respect may inhibit strategic flexibility ($r=-0.275$), necessitating balance in the dynamic relationship between affective identification and behavioral adjustment.

Based on these findings, the following pedagogical implications are proposed: First, regarding curriculum reconstruction, establish a tiered curriculum system of "cognitive foundation-building for junior cohorts (cultural theory) - practice intensification for senior cohorts (simulated training)," incorporating intercultural internship modules (recommended proportion $\geq 15\%$) to mitigate upper-grade competence decline. Second, intercultural competence training requires targeted interventions. Develop specialized training programs for weakness dimensions, such as enhancing Message Skills through VR situational simulation (target $\Delta \geq 0.5$), and strengthening Interaction Confidence through collaborative group activities (intervention period ≥ 12 weeks). Third, establish dynamic assessment mechanisms, constructing intercultural competence tracking systems with particular attention to the sophomore-to-junior transition period (critical threshold for competence decline), implementing quarterly diagnostic assessments and feedback regulation.

Acknowledgement

This paper is a partial result of the 2025 Northwest Minzu University Undergraduate Talent Cultivation Quality Improvement Project (No. 2025YBJG-34), titled “Research on Cultivation and Enhancement Pathways of University Students' Chinese Culture Communication Competence—Taking the Curriculum Reform of Chinese Culture Course for English Majors as an Example.” It was also supported by the Gansu Provincial Key Research Base of Humanities and Social Sciences.

References

1. Barrett, M. D., Huber, J., & Reynolds, C. (2014). *Developing intercultural competence through education*. Council of Europe Publishing.
2. Bennett, M. J. (1984, May). *Towards ethnorelativism: A developmental model of intercultural sensitivity* [Paper presentation]. Annual Conference of the Council on International Exchange, Minneapolis, MN, United States.
3. Bennett, M. J. (1993). Towards ethnorelativism: A developmental model of intercultural sensitivity. In R. M. Paige (Ed.), *Education for the intercultural experience* (pp. 21–71). Intercultural Press.
4. Bhawuk, D. P. S., & Brislin, R. (1992). The measurement of intercultural sensitivity using the concepts of individualism and collectivism. *International Journal of Intercultural Relations*, 16 (4), 413–436.
5. Chen, G. M., & Starosta, W. J. (1997). A review of the concept of intercultural sensitivity. *Human Communication*, 1(1), 1–16.
6. Chen, G. M., & Starosta, W. J. (1998). A review of the concept of intercultural awareness. *Human Communication*, 9(2), 27–54.
7. Chen, G. M., & Starosta, W. J. (2000). The development and validation of the intercultural communication sensitivity scale. *Human Communication*, 3(1), 1–15.
8. Chen, J. S., Fan, W. W., & Zhong, H. (2007). *Intercultural communication and foreign language education* [In Chinese]. Huazhong University of Science and Technology Press.
9. Deardorff, D. K. (2006). Identification and assessment of intercultural competence as a student outcome of internationalization. *Journal of Studies in International Education*, 10 (3), 241–266.
10. Hammer, M. R., Gudykunst, W. B., & Wiseman, R. L. (1978). Dimensions of intercultural effectiveness: *An exploratory study*. *International Journal of Intercultural Relations*, 2 (4), 382–393.
11. Hua, Y. (2020). A survey on intercultural sensitivity of English majors in ethnic universities and strategy research [In Chinese]. *China Educational Technology & Equipment*, 20, 19–27.
12. Huang, Q. F. (2012). A study on intercultural sensitivity of foreign-related interns in higher vocational colleges: Taking International Business Department of Guangdong Teachers College of Foreign Language and Arts as an example [In Chinese]. *Journal of Changchun University of Science and Technology*, 2, 190–191.
13. Klak, T., & Martin, P. (2003). Do university-sponsored international cultural events help students to appreciate “difference”? *International Journal of Intercultural Relations*, 27 (4), 445–465.
14. Paige, R. M. (1993). *Education for the intercultural experience*. Intercultural Press.

15. Portalla, T., & Chen, G. M. (2010). The development and validation of the intercultural effectiveness scale. *Intercultural Communication Studies*, 19 (3), 21–37.
16. Tan, D. (2017). A study on intercultural sensitivity and effectiveness of participants in international educational cooperation projects [In Chinese]. *Journal of Teacher Education*, 6, 95–101.
17. Ye, M., & An, R. (2012). Analysis of intercultural sensitivity and effectiveness of short-term international students in China [In Chinese]. *Higher Education Exploration*, 2, 102–106.
18. Yu, W. Q. (2012). An empirical study on intercultural communication competence of Chinese language learners in China: Sensitivity and efficacy [In Chinese]. *Chinese Teaching in the World*, 4, 551–559.
19. Zhao, X. (2012). Correlation between intercultural effectiveness and intercultural communication anxiety of non-English major college students [In Chinese]. *Journal of Fuyang Normal University (Social Science Edition)*, 6, 113–117.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

