

# Empirical Study on the Intercultural Sensitivity of Students in Science and Technology Universities in Jiangxi Province

Xing Liu

*School of Foreign Languages, East China Jiaotong University, Nanchang, China*  
*Email: xingtracy505@aliyun.com*

## ABSTRACT

Intercultural communication has increasingly attracted global attention with the development of economic, cultural and political integration. Intercultural communication is not only one of the main components in College English Curriculum but also regarded as an important skill which global citizens must own. To meet the needs of China's social development and international exchanges, college students should develop their cultural awareness to communicate effectively. How to define the term of intercultural communicative competence becomes vital in developing and assessing learners' intercultural competence. In order to construct the performance model of intercultural communicative competence of Chinese university students, this research adopts an empirical study of the intercultural sensitivity of Chinese college students by taking science and technology universities in Jiangxi Province as example. The research is conducted through Intercultural Sensitivity Scale developed by Chen and Starosta. The findings validate the use of ISS and could awaken Chinese College English teachers to the intercultural sensitivity of their students which is often overlooked in practical teaching.

**Keywords:** ICC, ISS, awareness, attitudes, skills.

## 1. INTRODUCTION

With the development of economic and cultural globalization, cultural diversity has become the main subject and mission of UNESCO. The former Director-General of UNESCO, Irina Bokova, pointed out that cultural diversity is our wealth and our future. Intercultural communication plays an indispensable role in bridging cultural gaps and maintaining cultural diversity. Under the new circumstances, the China Academy of Translation was launched in Beijing on July 29, 2014. One of the major missions of the Academy is to set up a talent pool of translators and improve the evaluation system of China's translation professionals. With Master of Translation and Interpreting education included in over 253 higher education institutions in China, it is urgent to establish an effective competence model of modern translators. Despite a large number of translation talents in China, there is an increasing need for cultural masterminds in terms of cultural communication and promotion, and a need for those experts with international vision. This year, Intercultural Communication has been recognized

as a compulsory course for English and Translation majors of Chinese university. It is also included in the College English Curriculum Requirements. However, no consensus has been reached on the model of intercultural communicative competence. There is also a need to provide a certain way to measure the cultural awareness of university students in Jiangxi province for improvement of College English teaching. This study is an attempt to find out a consensus among intercultural scholars on the definition and model of intercultural communicative competence and to measure the intercultural sensitivity of students in science and technology universities in Jiangxi Province, thus offering some suggestions for College English teaching in those universities [1].

## 2. DEFINITION AND MODEL OF INTERCULTURAL COMMUNICATIVE COMPETENCE

Under the influence of theoretical linguistics, competence acquired a meaning derived from Noam Chomsky in translation studies, that is, the knowledge a

speaker-listener has of his language. Nevertheless, competence involves more than mental faculty. According to Werner Koller, translator's competence surpasses pure foreign language competence which is acquired in foreign language classes. Koller noted the difference between translator's competence and language competence, but the components of translator's competence were not stated specifically. Communicative competence is first presented by Dell Hathaway Hymes including all components of communicative events, especially attitudes and beliefs related to them. Hymes observed the cultural aspects and enriched Chomsky's linguistic competence. Since education for an intercultural citizenship was put on the agenda of UNESCO, great significance has been attached to intercultural communication in undergraduate and postgraduate education in China. It is not only among the most important courses in the curriculum, but also is an essential skill which the students must display.

Since there are a lot of synonyms of addressing intercultural communicative competence (ICC), it is a rather complicated term to be defined. Intercultural communicative competence is often considered to be a sub-field of communicative competence [2]. According to Alvino Fantini, the following description is a brief definition of intercultural communicative competence: "a complex of abilities needed to perform effectively and appropriately when interacting with others who are linguistically and culturally different from oneself" [3].

As for the components of ICC, the main four dimensions are knowledge, attitude, skills, and awareness. Fantini listed the commonly cited traits of ICC as follows:

Openminded, patience, motivation, interest, empathy, clear sense of self, flexibility, relativity, tolerance for differences, tolerance for ambiguity, and a willingness to suspend judgment among others [3].

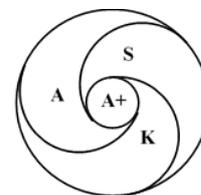
These attributes explained intercultural awareness and attitude in detail. Since a consensus has been reached that ICC is a developmental process, Michael Byram established comprehensive learning objectives for developing ICC, which are elaborate and can be used as reference in syllabus design.

Darla K. Deardorff carried out the first study to document the consensus on the notion and assessment of ICC among the internationally renowned intercultural experts and American higher education administrators. Deardorff developed two models of ICC with an attempt to provide guidance for administrators to assess intercultural communicative competence. Both the two models contain the same components of ICC. The first model focuses on the degree of competence, while the second model puts stress on the developmental process of ICC. Degree of intercultural competence depends on

degree of attitudes, knowledge/comprehension, and skills.

Consistency can be found by comparing the description of the external outcome with the definition provided by Fantini. Hence, there is at least a consensus on the definition of intercultural communicative competence among intercultural scholars. Effectiveness and appropriateness are accordingly the most important standards in judging the competence.

Despite the agreement on the definition of ICC, the ways of organizing the components remain different. While Deardorff regards attitudes as the keystone of her model, Fantini tends to emphasize that awareness outweighs the other dimensions such as attitudes, skills and knowledge by putting awareness in the central position in the following model [4].



**Figure 1.** A+ASK quartet of intercultural communicative competence

According to Fantini, the four dimensions are integrated, as awareness "leads to deeper cognition, skills, and attitudes just as it is also enhanced by their development" [4]. This perception stresses the interaction among the four components of ICC with awareness as the core. In the researched conducted by Deardorff [5], some American higher education administrators also hold that cultural awareness should be the top element for defining ICC. It is similar to the agreement of intercultural experts that understanding others' world views is pivotal to intercultural communication.

Furthermore, Deardorff's process model of intercultural competence generally shows the positive process orientation. However, Fantini observed that individuals might "experience moments of regression or stagnation" [4] during ICC development. An interesting study is carried out by Elisabeth Arévalo-Guerrero [6] to assess students' intercultural sensitivity by teaching culture in a foreign language class. The research proves that not all students develop intercultural sensitivity "in the same way and at the same rate". Two groups showed opposite developments in intercultural sensitivity through the experience of intercultural interaction. Group III even showed a movement from an ethnocentric view to a more ethnocentric worldview. As Fantini explained, how much one adapts to a different culture "ultimately resides in the choices one makes" [4]. The choice is the awareness about the relation between one's own culture and others' cultures.

Although intercultural experts hold different views on the model of intercultural communicative competence, sensitivity, awareness, attitudes, knowledge and skills are the common attributes to measure intercultural competence, among which sensitivity is a crucial element in developing intercultural competence [7].

### **3. EMPIRICAL STUDY ON STUDENTS' INTERCULTURAL SENSITIVITY**

This research mainly investigates the intercultural sensitivity of college students in two major science and technology universities in Jiangxi Province, and aims to provide certain reference for English classroom teaching. According to the Intercultural Sensitivity Scale published by Chen and Starosta [8], this project attempts to prove the correlation among interaction engagement, respect for cultural differences, interaction confidence, interaction enjoyment, and interaction attentiveness, and to answer the following questions: (1) Among the five factors, which factor can predict intercultural sensitivity? (2) What is the correlation among the five factors of intercultural communication? (3) Is the intercultural sensitivity of college students significantly related to their overseas study or travel experience? (4) Is there any significant difference in intercultural sensitivity between English majors and non-English majors? Do English majors have a higher level of intercultural sensitivity than non-English majors? Based on the above four questions, the following research hypotheses are made: (1) interaction engagement, respect for cultural differences, interaction confidence, interaction enjoyment, and interaction attentiveness can be combined to make the best prediction for intercultural sensitivity. (2) Respect for cultural differences, interaction confidence, interaction enjoyment, and interaction attentiveness are positively correlated with interaction engagement. Interaction confidence is positively correlated with interaction enjoyment. (3) College students who have studied or traveled abroad have a higher level of intercultural sensitivity than those who have not. (4) College students majoring in English have a higher level of intercultural sensitivity than those of non-English majors.

#### **3.1. Respondents**

The respondents of this study are freshmen and seniors from two universities in Jiangxi province, half of whom are English majors and the other half are non-English majors, including six disciplines: economics, management, law, literature, science and engineering [9].

#### **3.2 Methods**

This research used a combination of two research methodologies in analyzing the intercultural sensitivity

of college students to provide suggestions for College English teaching in universities in Jiangxi province. The two methods were a quantitative research based on the questionnaire designed by Chen and Starosta [8] and a qualitative research carried out by research group for proving the credibility of the survey results.

##### *3.2.1. Quantitative Research*

The questionnaire mainly adopts the five-level Likert Scale of intercultural sensitivity designed by Chen and Starosta [8], because the validity and reliability of the questionnaire have been recognized internationally. The Intercultural Sensitivity Scale is a 24-item self-report measurement including five factors: interaction engagement, respect for cultural differences, interaction confidence, interaction enjoyment, and interaction attentiveness. Before issuing questionnaires, this research first obtained the consent of the student and the English teacher, and let the students understand that the purpose of this survey is to provide certain relevant suggestion for improving college English teaching. They are asked to truly reflect their feelings, and offer answers with the first impression, to ensure that the survey results to be real and effective. The questionnaire consists of two parts: The first part is the five-level Likert Scale of cross-cultural sensitivity designed by Chen and Starosta, which specifically includes five factors (cross-cultural communication participation, cultural difference identification, communication confidence, communication pleasure, and communication concentration) and there are 24-item self-report. The likert scale was used to score the forward statements from "1" to "5", with "1" representing "totally disagree", "2" representing "disagree", "3" representing "neutral", "4" representing "agree" and "5" representing "totally agree". The reverse statements should be scored in reverse order, including Items 2, 4, 7, 9, 12, 15, 18, 20, and 22. The second part is the personal information of the respondents, including their major, grade and overseas experience.

##### *3.2.2. Qualitative Research*

After collecting the questionnaire, members of the research group designed five open-ended questions centering on cross-cultural sensitivity, and randomly selected 100 students from the respondents for interviews, so as to enhance the credibility of the survey results.

##### *3.2.3. Data Analysis*

The research team issued a total of 1082 questionnaires and collected 1,000 valid papers, with an effective rate of 92%. The descriptive data and frequency of the questionnaire were mainly analyzed by SPSS, while Excel was also used as a reference and double-checked the analysis results.

### 3.3 Results and Discussion

Before reaching for the results of the research hypotheses, there are some preliminary data coming out first which are worth noticing.

#### 3.3.1. Preliminary Statistics

The following table presents what this research group has discovered though data collection and analysis.

**Table 1.** Differences in the approval degree between English majors and non-English majors

Chi-square value	P value	Items
47.933	0.000	20. I think my culture is better than other cultures.
36.060	0.000	7. I don't like to be with people from different cultures.
15.684	0.0035	2. I think people from other cultures are narrow-minded.
14.762	0.0052	22. I avoid those situations where I will have to deal with culturally-distinct persons.
12.085	0.0167	8. I respect the values of people from different cultures.
11.933	0.0179	18. I would not accept the opinions of people from different cultures.
11.231	0.0241	1. I enjoy interacting with people from different cultures.
10.915	0.0275	24. I have a feeling of enjoyment towards differences between my culturally-distinct counterpart and me.

According to the analysis of the frequency of the respondents' choice of each question, 90.4% of the students showed respect for different cultural values, 87% did not think that people from other cultures were narrow-minded, and 85.4% of the students showed respect for the behaviors of people from different cultures. These data show that the respondents generally show respect for cultural differences.

Based on the classification of Chen and Starosta, cultural difference identification includes items 2, 7, 8, 16, 18 and 20. The average value of the six items is 4.103. Moreover, more than 70% of the items 2, 7, 8, 16 and 18 are unified. Therefore, it can be concluded that those students have a high level of respect for cultural differences.

Although the research data shows that more than 70% of the respondents have the same view on the identification of cultural difference, there is a difference in the proportion of the degree of approval between English majors and non-English majors. In Table 1, in items 20 and 7,  $P < 0.0001$ , there is an extremely significant difference; In items 2 and 22,  $0.001 < P < 0.01$ , there was a significant difference. In items 8, 18, 1 and 24,  $0.01 < P < 0.05$ , the results were considered to be significantly different.

Intercultural Communication is playing an increasingly powerful role in participating in global dialogue and promoting intercultural understanding [10]. To develop students' intercultural communicative competence is an important goal of higher education institutions in China. Since there are a large number of definitions of intercultural communicative competence given by academic scholars, it is becoming an urgent need to clarify the components.

#### 3.3.2. Statistics Results Testing the Hypotheses

Through the correlation test of the five factors of the intercultural sensitivity based on the survey results, the study found that the five factors were significantly correlated with the intercultural sensitivity. Through enter regression, stepwise regression, forward and backward regression, it was concluded that the comprehensive relationship between the five factors and the intercultural sensitivity was completely linear (the correlation coefficient was 1.000). Hence the first hypothesis is true.

The data also confirmed the second hypothesis via SPSS analysis, but only respect for cultural difference and interaction engagement were significantly correlated (correlation coefficient  $r = 0.520$ ), and interaction confidence and interaction pleasure were significantly correlated (correlation coefficient  $r = 0.538$ ). While the other factors presented weak correlation, which is shown in Table 2.

After excluding other factors, the relationship between respect for cultural difference and interaction engagement is still significant (partial correlation coefficient is  $R = 0.410$ ), and the relationship between interaction confidence and interaction pleasure is still significant (partial correlation coefficient is  $R = 0.431$ ). This result can provide some reference for College English teaching. College English teachers should focus on cultivating college students' intercultural sensitivity from the aspects of respect for cultural difference and interaction confidence.

However, the result about the third hypothesis is unlike those of the first two hypotheses. Through the homogeneity test of variance, it is found that there is only a significant difference between those who have overseas experience and those who don't have regarding the factor of interaction confidence (significance coefficient 0.29) and interaction pleasure (significance coefficient 0.47). This proves the viewpoint held by some intercultural scholars that studying abroad or traveling alone cannot improve one's intercultural sensitivity without training in intercultural communication [11].

**Table 2.** Correlation between five factors

		Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Factor 1	PCC	1	0.52**	0.49**	0.41**	0.42**
	Sig.		0	0	0	0
Factor 2	PCC	0.52**	1	0.29**	0.41**	0.17**
	Sig.	0		0	0	0
Factor 3	PCC	0.49**	0.29**	1	0.54**	0.35**
	Sig.	0	0		0	0
Factor 4	PCC	0.41**	0.41**	0.54**	1	0.15**
	Sig.	0	0	0		0.001
Factor 5	PCC	0.42**	0.17**	0.35**	0.15**	1
	Sig.	0	0	0	.001	

Note: PCC=Pearson Correlation Coefficient; Sig.=Significance test (two-sided); \*\*= There was a significant correlation at the .01 level (two-sided).

**Table 3.** Average Value Differences between English majors and Non-English majors

Descriptive statistics		
English majors	Average value	Standard deviation
interaction engagement	3.93	0.54
respect for cultural difference	4.36	0.47
interaction confidence	3.14	0.64
interaction pleasure	3.73	0.78
interaction attentiveness	3.66	0.61
Non-English majors	Average value	Standard deviation
interaction engagement	3.78	0.56
respect for cultural difference	4.09	0.56
interaction confidence	3.19	0.65
interaction pleasure	3.64	0.77
interaction attentiveness	3.65	0.63

As for the fourth hypothesis that English majors have a higher level of intercultural sensitivity than those of non-English majors, the study finds that the English majors among those respondents only have a slight advantage in the aspects of interaction engagement and respect for cultural difference, but have a slight deficiency in the aspect of interaction confidence, as is seen from Table 3. In the future teaching process, it is necessary to strengthen the cultivation of students' interaction confidence in science and technology universities in Jiangxi Province.

The data shows that all the respondents have a higher level of respect for cultural difference, but their interaction confidence needs to be developed in order to have more effective intercultural communication.

**4. CONCLUSION**

Most scholars agree to provide a general definition of the abilities to interact with different cultures in a foreign language. The two crucial objectives are effectiveness and appropriateness. The most commonly cited four components are awareness, attitudes, skills and knowledge which are interactive rather than

separate. However, sensitivity is an important factor in measuring students' intercultural competence, which has often been neglected in College English teaching, especially in some science and technology universities in Jiangxi Province.

Through the empirical study of two major science and technology universities in Jiangxi Province, the survey results are generally positive that more than 70% percent of the respondents showed high respect for cultural differences. However, their interaction confidence is relatively low compared with the other four factors of intercultural sensitivity measurement. This could directly affect their interaction pleasure. Thus intercultural communication teaching is necessarily needed to further contribute to eliminating cultural misunderstanding and facilitating student's future intercultural communication.

In addition, awareness should be given priority in developing students' intercultural competence [11]. The awareness includes both awareness of one's own culture and that of others' culture. The development is an on-going process as one experiences the interaction with different cultures. The interaction engagement does not necessarily lead to students' higher level of intercultural sensitivity, according to the research results of those respondents who have overseas experience. It is important that desirable degrees of intercultural communicative competence be attained through the development or training program worked out by higher education institutions. The question as to how College English teachers could assist students to develop intercultural sensitivity is to be explored in future study.

**REFERENCES**

- [1] Indu Purnahayu, Puspa Eosina, Budi Susetyo, Immas Nurhayati. Indonesian Universities Readiness in Providing Professional HR in Geospatial Information[J]. International Journal of Modern Education and Computer Science, 2020, 06(08): 26-32. DOI: 10.5815/ijmecs.2020.03.04
- [2] Deardorff, D. K. Exploring Interculturally Competent Teaching in Social Sciences Classrooms[J]. Enhancing Learning in the Social Sciences, 2010, 2(1): 1-18.
- [3] Fantini, A. E. Reconceptualizing Intercultural Communicative Competence: A Multinational Perspective[J]. Research in Comparative and International Education, 2020, 15(1): 52-61. DOI: 10.1177/1745499920901948
- [4] Fantini, A. E. A Central Concern: Developing Intercultural Communicative Competence[J]. School for International Training Occasional Papers Series, 2020, Inaugural Issue. 25-42.

- [5] Deardorff, D. K. The Identification and Assessment of Intercultural Competence as a Student Outcome of Internationalization at Institutions of Higher Education in the United States[D]. North Carolina State University, 2004.
- [6] Arévalo-Guerrero, E. Assessing the Development of Learners' Intercultural Sensitivity and Intercultural Communicative Competence: The Intercultural Spanish Course[D]. University of Maryland, 2009.
- [7] Jia-Fen Wu. Impact of Foreign Language Proficiency and English Uses on Intercultural Sensitivity[J]. *I.J. Modern Education and Computer Science*, 2016(8), 28-35. DOI: 10.5815/ijmecs.2016.08.04
- [8] Chen, G-M., Starosta, W. J. The Development and Validation of the Intercultural Sensitivity Scale[J]. *Human Communication*, 2000, 3(1): 3-14.
- [9] Arnold A. OJUGO, Andrew O. EBOKA. Assessing Users Satisfaction and Experience on Academic Websites: A Case of Selected Nigerian Universities Websites[J]. *International Journal of Modern Education and Computer Science*, 2018, 10(08): 53-61. DOI: 10.5815/ijitcs.2018.10.07
- [10] Avgousti, Maria Iosifina. Intercultural Communicative Competence and Online Exchanges: a Systematic Review[J]. *Computer Assisted Language Learning*, 2018, 31(8): 819-853.
- [11] Lucinda C. West. Evaluating the Intercultural Sensitivity Scale with Counselors in International Schools[D]. Regent University, 2009.
- [12] Kortunov, Vadim V., Lapshin, Ivan Y., Zorina, Natalya M., Kireenkova, Zoya A. Teaching Students Intercultural Communicative Competence: Methodological Aspect[J]. *International Multidisciplinary Scientific Conference on Social Sciences & Arts SGEM*, 2016, 1041-1046.