A Study of Factors Influencing Students' Intercultural Competence

Qi Cui

Department of Modern and Classical Languages, University of North Georgia, Dahlonega, USA

Abstract—This study explored the concepts of intercultural competence and cultural intelligence and clarified corresponding terms. Using the Cultural Intelligence Scale (CQS) as an instrument and conducting multiple regression tests, this quantitative research investigated individual scale factors that would influence the intercultural competence of the students who declared an education major or minor in the College of Education within the chosen university. Analysis of the 184 survey responses from an American state University indicated that the independent variables of perceived competence in non-native language or culture, frequency of interaction with people of diverse backgrounds, and teaching experience were significant predictors of pre-service teachers' levels of intercultural competence.

Index Terms—intercultural competence, cultural intelligence, teacher education, pre-service teacher, language, culture

I. INTRODUCTION

Although the term cross-cultural is often used synonymously with intercultural, Gudykunst and Kim (2007) clarified that the term cross-cultural "implies a comparison of some phenomena across cultures" (p. 18). In contrast, when discussing communication and interaction among different cultures, people often use the term intercultural. Marginson and Sawir (2011) proposed that intercultural relations that involve the potential for mutual transformation are within the broad category of cross-cultural relations. According to Marginson and Sawir, "the elements of openness and reciprocity are key, distinguishing intercultural relations from all other cross-cultural relations" (p. 17). There is not an agreed upon terminology about intercultural competence. Different disciplines and approaches adopt different terms to describe this concept (Deardorff, 2011). Sercu (2005) identified intercultural competencies and characteristics as the following:

The willingness to engage with foreign culture, self-awareness and the ability to look upon oneself from the outside, the ability to see the world through one's eyes, the ability to cope with uncertainty, the ability to act as a cultural mediator, the ability to evaluate others' points of view, the ability to consciously use culture learning skills and to read the cultural context, and the understanding that individuals cannot be reduced to their collective identities. (p. 2)

Intercultural competence includes one's knowledge, skills, attitudes, and awareness when interacting with people from diverse cultures. Intercultural communicative competence is the actual use of competence in the authentic context to communicate successfully across different cultures.

While research efforts have addressed the development of intercultural competence and its importance within the competitive global economy, few have sought to explore the intercultural competence of pre-service teachers. This topic, however, demands greater attention because teachers need to develop intercultural competence in order to effectively communicate with students of diverse cultural backgrounds. This is particularly relevant in the United States, a country of immigration, where there are many students of different ethnic backgrounds. In identifying the factors influencing pre-service teachers' intercultural competence, this study highlights several skills that need to be cultivated in the collegiate setting.

Fantini (2009) argued that a review of the assessment tools of intercultural competence reveals the dilemma. Some instruments address lingual aspects, but some address cultural customs. Other instruments focus on international rather than intercultural and therefore exclude diversity within a nation. However, others are simply unclear and their intent is uncertain. One construct, cultural intelligence (CQ), appears to address intercultural competence directly. CQ refers to "a person's capability for successful adaptation to new cultural settings, that is, for unfamiliar settings attributable to cultural context" (Earley & Ang, 2003, p. 9). CQ is defined in accordance with general intelligence, and it addresses a specific form of intelligence in authentic intercultural settings (Ang, Van Dyne, Koh, Ng, Templer, Tay, & Chandrasekar, 2007). Ang et al. (2007) depicted that CQ is "a multidimensional construct targeted at situations involving cross-cultural interactions arising from differences in race, ethnicity and nationality" (p. 336). The Cultural Intelligence Center (2005) introduced the Cultural Intelligence Scale (CQS) as an instrument to measure one's intercultural competence. Ang and Van Dyne (2008) compared the other 11 intercultural competency scales with the CQS and concluded that the CQS is a valid instrument that evaluates multiple aspects of intercultural competence. Van Dyne, Ang, and Koh (2008) suggested four dimensions of CQS: (a) metacognitive CQ, which is a person's foreknowledge, onsite adjustment, and post-evaluation of an interaction with people from different cultures; (b)

cognitive CQ, which is a person's comprehension of different languages, values, and customs; (c) motivational CQ, which is a person's inner drive to direct his or her appropriate behavior in a new cultural scenario; and (d) behavioral CQ, which is a person's ability to communicate appropriately with people of diverse backgrounds. Using the CQS as a survey instrument, this research assessed the levels of intercultural competence of pre-service teachers, at the age of 18 years or older, having declared an education major or minor at a Midwest state university.

II. INTERCULTURAL COMPETENCE AND CULTURAL INTELLIGENCE SCALE

Intercultural competence is a capability of communicating with peoples of diverse backgrounds, which represents different cultural orientations in the world (Spitzberg & Changnon, 2009). It includes one's wisdom and strategy when interacting with people from different languages and cultures. Given the need to educate students for the interconnected and diverse world, educators must highlight intercultural competence in the curriculum of higher education (Deardorff, 2011). Global education, multicultural education, and intercultural education all address the development of intercultural competence, which enables an individual to interact and communicate appropriately in an alien culture.

In their book Crossing Cultures in the Language Classroom, DeCapua and Wintergerst (2007) wrote that different research fields such as linguistics, anthropology, sociology, psychology, and communication influenced the definition of culture. DeCapua and Wintergerst asserted that culture can be viewed as the set of fundamental ideas, practices, and experiences shared by a group of people. Culture can also refer to a set of shared beliefs, norms, and attitudes that are used to guide the behaviors of a group of people, to explain the world around them, and to solve their problems. (p. 12)

The elements of culture include beliefs, norms, taboos, and attitudes. "Beliefs are an individual's convictions about the world, convictions that are shaped by the culture a person is raised in" (DeCapua & Wintergerst, 2007, p. 17). Cultural beliefs represent the reality and the expectations of the world. People from the same culture hold similar beliefs. For example, American people will open gifts given to them and express their thanks. Chinese people also receive gifts from their relatives, friends, and colleagues, but they do not open the gifts immediately. They often open the gifts and find an opportunity to show their appreciation later. "Norms are the fixed behavior patterns for members of a cultural group. They are culturally shared notions about what is appropriate behavior. They may also be described as culturally established patterns of doing things" (DeCapua & Wintergerst, 2007, p. 19). In the United States of America, there is an age minimum for people purchasing alcohol or tobacco, but in other countries, there is no such regulation. Taboos regulate actions that are or are not allowed in a society, and attitudes are emotional reactions toward people and surroundings. When people enter or encounter an alien culture, they find a difference or conflict exists between cultures. They may feel uncomfortable or even frustrated. They are experiencing cultural shock. Intercultural competence enables people to communicate effectively.

According to Fantini (2009), there are different terms addressing intercultural abilities. They are bilingualism, multilingualism, multiculturalism, cross-cultural adaptation, cultural or intercultural sensitivity, global competence, and global competitive intelligence. For example, Cui and Cui (2015) researched monolingualism and multilingualism, concluding that the latter contributes to higher education and social expression whereas the former depresses cultural identification within children of immigrant parents. Deardorff (2011) suggested using the term intercultural competence because "it applies to any [people] who interact with those from different backgrounds, regardless of location" (p. 66). Rathje (2007) reviewed three models describing intercultural competence. The list models described intercultural competence using subsequent catalogues such as reducing anxiety or using empathy. The structural models described intercultural competence as a larger framework incorporating behavioral, cognitive, and affective dimensions. The situational and interactionistic models described intercultural competence in a social context where the interaction took place.

Rathje (2007) discussed the current debate of intercultural competence in terms of goal, scope, application, and foundation. There are two viewpoints toward the goal of intercultural competence: the efficiency model focuses on productivity and sees intercultural competence as "an instrument and a means to success" (Rathje, 2007, p. 256) in an intercultural environment; the human development viewpoint "emphasizes the importance of effective human interaction in the expectation that successful intercultural competence will manifest itself in the participants as a kind of palpable personal development" (Rathje, 2007, p. 257). The scope of intercultural competence includes culture-specific competence that discusses intercultural competence rooted in one or more specific foreign cultures; generalized intercultural competence discusses intercultural competence as a means of human development among people with different cultures; general social competence gathers the separate intercultural competences as a whole and regards it as a form of social competence; transfer of generalized action competence places intercultural competence in the framework of action competence, which is necessary for a successful communication. The application of intercultural competence falls in two categories as either inter-national or inter-collective. Intercultural competence with inter-national interpretation describes the interaction between individuals from different national cultures. Intercultural competence with inter-collective interpretation describes interaction between individuals of specific collectives with distinct culture. The cultural foundation uses the scenario of intercultural competence to address the term culture. The coherence-oriented approach is a traditional understanding on culture, which describes culture as "something unifying which produces common characteristics shared by a significant number of the members of that culture" (Rathje, 2007, p.

260). Rathje (2007) called the opposite approaches, which choose to "accentuate differentiation within a specific culture and embrace the fundamental contradictions present within them" (p. 261)—cohesion-oriented approaches.

Rathje's (2007) research addressed intercultural competence in both global and multicultural settings. Rathje reviewed the existing definitions of intercultural competence and analyzed the goal, scope, application, and foundation of it. Based on the above analysis, Rathje proposed a tentative definition of intercultural competence: it is a cultural-oriented capability focusing on communication and interaction between peoples of diverse cultural backgrounds to achieve the goal of mutual understanding of the difference between cultures and thus become familiar with, and be able to appreciate, a different culture.

According to Deardorff (2011), the increase of intercultural competence is a continuing process. It involves the progress of critical thinking skills, the development of a global perspective, and other worldviews. Additionally, it hinges upon the progress of attitudes including respect, openness, and curiosity. Based on M. J. Bennett's Development Model of Intercultural Sensitivity (DMIS) and the related instrument, the Intercultural Development Inventory (IDI), DeJaeghere and Zhang (2008) investigated factors that influenced the intercultural competence through an in-service American teachers' professional development program. In their study, they regarded intercultural competence as "the ability to think and act in interculturally appropriate ways as applied to the school/classroom setting for teachers" (p. 256). Guo, Arthur, and Lund (2009) suggested that educational institutions are the primary vehicles for developing pre-service teachers' intercultural competence through a trial and error process of learning their own and others' cultures.

Cultural intelligence is a capability of communicating effectively in a new culture scenario. It is a construct that "assesses multiple aspects of intercultural competence in a single instrument, based on a theoretically grounded, comprehensive, and coherent framework" (Ang & Van Dyne, 2008, p. 10). In developing the CQS and examining its validity and reliability, Ang et al. (2007) followed Schmidt and Hunter's definition of general intelligence and described cultural intelligence as "a specific form of intelligence focused on capabilities to grasp, reason and behave effectively in situations characterized by cultural diversity" (p. 337). They conceptualized cultural intelligence through four dimensions according to Sternberg's multiple-loci of intelligence in cultural diversity settings (Ang et al., 2007). Metacognitive CQ refers to the abilities of planning, evaluating, and adjusting cultural norms in intercultural settings. "While metacognitive CQ focuses on higher-order cognitive processes, cognitive CQ reflects knowledge of the norms, practices, and conventions in different cultures acquired from education and personal experiences," and "motivational CQ reflects the capability to direct attention and energy toward learning about and functioning in situations characterized by cultural differences" (Ang et al. , 2007, p. 338). Behavioral CQ demonstrates the overt actions while communicating with people from diverse cultures. The CQS was developed in accordance with the constructs of CQ. Ang et al. (2007) concluded that CQS is a powerful tool to predict three aspects of intercultural effectiveness: "cultural judgment and decision making (a cognitive outcome), cultural adjustment and wellbeing (an affective outcome), and task performance (a behavioural outcome)" (p. 340). It is a scale that measures language, culture, intercultural, and communication issues. Many researchers (Amiri, Moghimi, and Kazemi, 2010; B áez, 2012; Banning, 2010; Franklin-Craft, 2010; Shannon and Begley, 2008; Tarique and Takeuchi, 2008) have utilized CQS to assess people's intercultural competence.

Shannon and Begley (2008) conducted confirmatory analyses on psychometric measures of CQ. The result of the study based on 333 Irish and international business students supported the validity of CQS. Their first hypothesis was that second language acquisition will positively relate to (a) cognitive CQ and (b) behavioral CQ. They found that there was a statistically significant relationship between second language acquisition and cognitive CQ. This finding suggested that multilingual people are sensitive to use language as a tool to obtain intercultural knowledge. Their second hypothesis was that international work experience will positively relate to (a) metacognitive CQ, (b) motivational CQ, and (c) behavioral CQ. They found that there was a statistically significant relationship between international work experience and motivational CQ. This finding indicated that people with multiple international work experiences are inclined to work with people from diverse backgrounds and are willing to explore different cultures and traditions in an unfamiliar cultural setting. Their third hypothesis was that diversity of social contacts will positively relate to (a) metacognitive CQ, (b) cognitive CQ, and (c) behavioral CQ. They did not find a positive relationship between diversity of social contacts and self-reported CQ. Shannon and Begley suggested future research exploring additional antecedents beyond language acquisition, international work experiences, and diversity of social contact. Besides that, it would be of great value to conduct a future study that focuses on the evaluation of the ongoing CQ dimensions.

Tarique and Takeuchi (2008) stressed that the amount of intercultural exposure is one of the factors that contributes to the development of cultural intelligence. The participants in this study were undergraduate students in a management course at a medium-sized university in New York City. The research results showed that the increase in number of international non-work experiences was associated with higher scores of all four latent variables of cultural intelligence. Tarique and Takeuchi suggested that future researchers investigate this important area following their initial empirical research.

Using CQS as a research instrument, Amiri, Moghimi, and Kazemi (2010) conducted a study to investigate the relationship between CQ and employees' performances in a university in Iran. The research method was a correlation-survey. They received 80 returned questionnaires from the staff of a religious–scientific entity. Data analysis showed

that three out of the four cultural intelligence dimensions, except behavior CQ, had a statistically significant relationship with employees' performance. There was a statistically significant relationship between overall CQS and the employees' performance. Amiri, Moghimi, and Kazemi (2010) recommended that future research may consider other demographic variables' influence on cultural intelligence.

Banning (2010) examined the predicative relationships in a study abroad population. Participants were from three public research universities in the Southeastern United States. A total of 166 students responded to the CQS survey. Among them, 68% were undergraduates, and 32% were graduate students. They all had a first, short-term study abroad experience. This non-experimental post-test only research was to determine the extent that gender, degree level, major, and previous international travel experience could predict the levels of CQ. Through quantitative data analysis, degree level was found to be a significant predictor of all four constructs of CQ. Students' majors were found to be a significant predictor of cognitive CQ, motivational CQ, and aggregate scores of CQS. International travel experience was found to be a significant predictor of behavioral CQ. Banning suggested a future study using pre-tests and post-tests to detect the effects of study abroad on CQ scores. A comparative analysis between short-term and long-term study abroad participants was also suggested as an area for further study. Banning also suggested a qualitative study utilizing interviews with targeted populations as another way to examine the relationships between study abroad programs and CQ.

Franklin-Craft (2010) adopted the CQS, a Multicultural Competence in Student Affairs-Preliminary 2 Scale (MSCA-P2), and a personal data form as survey instruments to answer three questions. Are there relationships between student affairs practitioners' identities and intercultural competence? Which and to what degree do experiential variables influence the outcomes of intercultural cultural competence? Are student affairs practitioners' self and peer-assessment of intercultural competency related? A sample of 465 student affairs practitioners nationwide responded to the survey. The research results showed that there were no relationships between race, identification, and CQS scores. Experiential variables including international exposure, frequency of workshop attendance, workplace interaction with people of diverse backgrounds, and workplace conversation about intercultural difference were found to account for 20% of the variance in intercultural competence holding demographic characteristics constant. There was not a statistically significant relationship between self-and peer-reported CQS scores.

Báez (2012) used the CQS as an instrument to examine students' cultural awareness, sensitivity to diversity, and holistic application, which were three out of four objectives of the Foundational Studies 2010 Non-Native Language Program for Spanish 101 at Indiana State University. Among the students enrolled in the six sections of the Spanish 101 course during the spring semester of 2012, 105 students participated in the pre-test, and 89 students participated in the post-test. The research results revealed that there was a significant difference between students' pre-test and post-test mean scores with respect to cognitive, motivational, and behavioral dimensions of CQ. There was also a significant change in the motivational dimension between female and male students. Báez (2012) suggested future research addressing different majors and different programs with respect to cultural intelligence.

III. RESEARCH DESIGN AND DATA ANALYSIS

The research question for this study is: Can pre-service teachers' levels of intercultural competence be predicted from demographic variables of (a) gender, (b) perceived competence in non-native language or culture, (c) frequency of interaction with people of diverse backgrounds, and (d) teaching experience? The null hypothesis is: Gender, perceived competence in non-native language or culture, frequency of interaction with people of diverse backgrounds, and teaching experience do not predict a significant proportion of the variance in cultural intelligence total scores. To assess pre-service teachers' intercultural competence, I used the CQS as a research instrument. According to Deardorff's (2011) grounded theory-based intercultural competence model, a successful assessment tool ought to evaluate students' critical thinking skills; their attitudes regarding respect, openness, and curiosity; and their holistic, contextual understanding of a culture. Van Dyne et al. (2008) claimed that metacognitive CQ promotes active thinking, triggers critical thinking, and increases the awareness of diverse cultures; cognitive CQ provides knowledge for decision-making in intercultural settings; motivational CQ addresses the curiosity in novel settings; and behavioral CQ exhibits appropriate and effective communication in diverse backgrounds. The four dimensions of CQ coincide with Deardorff's theories in the intercultural competence model. CQS measures the internal and external outcomes of intercultural competence. With regard to cross-validation of the CQS, "corrected item-to-total correlations for each subscale (0.46–0.66) demonstrated strong relationships between items and their scales, supporting internal consistency" (Ang et al. , 2007, p. 345). The aggregated reliabilities of CQS surpassed .70 (Ang et al., 2007). A request for using the CQS was sent and permission to use it was granted. I used a demographic questionnaire to collect the data to measure the participant demographics with respect to the following: gender, class standing, perceived competence in non-native language or culture, frequency of interaction with people of diverse backgrounds, and teaching experience. Participants in the study defined people of diverse backgrounds as those of different ethnicities. For example, if the participant identifies himself as Caucasian, he would mark his frequency of interaction with non-Caucasian people.

I designed a survey that combined the CQS and the demographic questionnaire to collect data and conducted the survey through Qualtrics with privacy protection. I used the Statistical Package of the Social Science (SPSS), version 19, and run multiple regression tests to analyze the data. The CQS, which includes 20 items on a seven-point Likert-type

scale, provides responses that range from strongly disagree to strongly agree. The range of the scores is from 20 to 140. I recoded the variables of gender, perceived competence in non-native language or culture, and teaching experience. Evaluation of frequency statistics and cross tabulation outcomes indicated that the new variables were successfully created. Table 1 shows the descriptions of independent variables predicting the intercultural competence total scores.

TABLE 1
DESCRIPTIONS OF INDEPENDENT VARIABLES PREDICTING CQS SCORES ($N = 184$)

Name	M	SD	Min	Max	Description
Gender	.77	--	0	1	0 = Male; 1 = Female
Perceived competence in non-native language or culture	.42	--	0	1	0 = Not feel competent; 1 = Feel competent
Frequency of interaction with people of diverse backgrounds	3.46	.89	2	5	5-point Likert-type scale from 1 Never to 5 Always
Teaching experience	.49	--	0	1	0 = No; 1 = Yes

Among the 184 participants, 77% were female and 49% had teaching experience. There were 42% of participants in this sample who felt competent in using a non-native language or interacting with others of another culture. The average score of frequency of interaction with people of diverse backgrounds was 3.46 ($M = 3.46$, $SD = .89$). I ran the multiple regression analysis using the recoded independent variables. Table 2 shows the results.

TABLE 2
REGRESSION ANALYSIS FOR VARIABLES PREDICTING CQS SCORES (N = 184)

	B	^{+}SEB	β
Gender	-1.26	2.69	-.03
Perceived competence in non-native language or culture	8.33	2.36	.25**
Frequency of interaction with people of diverse backgrounds	4.18	1.33	.22**
Teaching experience	4.59	2.29	.14*

Note. $R^2 = .17$; Adjust $R^2 = .15$. *$p < .05$, **$p < .01$, two tailed. $^{+}$Standard Error of B

Concerning the F-test in the ANOVA table, $F = 9.17$, $p < .001$, the model was significant. The model was significantly better at predicting the outcome than the mean. There was a total of 17% of the variance in the pre-service teachers' levels of intercultural competence that could be explained by the model. When adjusted for sample size and numbers of predictors, the variance explained dropped to 15%. The test results rejected the null hypothesis. Therefore, the pre-service teachers' levels of intercultural competence could be predicted from demographic variables of (a) gender, (b) perceived competence in non-native language or culture, (c) frequency of interaction with people of diverse backgrounds, and (d) teaching experience.

The independent variables of perceived competence in non-native language or culture and frequency of interaction with people of diverse backgrounds were significant predictors of pre-service teachers' levels of intercultural competence, $p < .01$, two tailed. The independent variable of teaching experience was a significant predictor of pre-service teachers' levels of intercultural competence, $p < .05$, two tailed. Students who felt competent in using a non-native language or interacting with others of another culture scored 8.33 points higher on the CQS than students who did not feel competent in using a non-native language or interacting with others of another culture, holding the other variables constant. For every additional point on the frequency of interaction with people of diverse backgrounds, the pre-service teachers' levels of intercultural competence increased by 4.18 points, holding the other variables constant. Students who had teaching experience scored 4.59 points higher on the CQS than students who did not have teaching experience, holding the other variables constant. The variable of gender was not a significant predictor of the pre-service teachers' levels of intercultural competence.

IV. FINDINGS AND IMPLICATIONS

I ran a multiple regression test for the research question. Concerning the F-test in the ANOVA table, $F = 9. 17$, $p < .001$, the model was significant. The test results rejected the null hypothesis: Gender, perceived competence in non-native language or culture, frequency of interaction with people of diverse backgrounds, and teaching experience do not predict a significant proportion of the variance in cultural intelligence total scores. The independent variables of perceived competence in non-native language or culture, frequency of interaction with people of diverse backgrounds, and teaching experience were significant predictors of pre-service teachers' levels of intercultural competence.

Students who felt competent in using a non-native language or interacting with others of another culture scored higher on the CQS than students who did not feel competent in using a non-native language or interacting with others of another culture. The research results supported Shannon and Begley's (2008) findings that multilingual students are likely to use language as a method to gather intercultural knowledge. The results concurred with Báez's (2012) research results that a university's Spanish 101 course made a significant difference between students' pre-test and post-test mean scores concerning cognitive, motivational, and behavioral dimensions of the CQS. Sercu (2005) stated that the willingness to engage with foreign cultures is one of the characteristics of interculturally competent students. Colleges and universities, therefore, should make great efforts to maintain and extend non-native language courses in order to develop students' intercultural competence. For example, colleges and universities should continue to recruit students

from other cultures in order to enhance diversity on campus. Other methods, as suggested by Deardoff (2011) include designing appropriate media to bring American and international students together. University departments, such as the Office of Overseas Studies and the Office of Global Programs, should encourage students to participate in domestic and study abroad exchange programs to develop intercultural competence.

The pre-service teachers' levels of intercultural competence increased with additional points on the frequency of interaction with people of diverse backgrounds. One must be reminded that the independent factor of the frequency of interaction with people of diverse backgrounds was self-reported and there was no criterion given to establish a basis for judgment in terms of frequency. The research results were in accordance with Tarique and Takeuchi's (2008) findings that intercultural exposure is one of the factors that contributes to the development of cultural intelligence. Deardoff (2011) proposed to bring American and international students together through meaningful interaction on campus. By breaking barriers between the two groups, colleges and universities would be integrating the campus, facilitating the exchange of language and cultural information, thereby increasing students' awareness of the diverse global environment. This type of experimental learning is especially important in developing the intercultural competence of pre-service teachers, who benefit from first-hand interactions with people of different ethnicities. Caine and Caine (2006) stated that students develop awareness and become mature in the solutions that are relevant to them. A collaborative approach is most consistent with an experiential perspective and is the most appropriate way to present meaningful interaction (Posner, 2004). Colleges and universities should continue creating more opportunities to engage students who were not very successful in their global-mindedness and intercultural competence to collaborate with each other and participate in activities on and off campus. Faculty members should continue designing appropriate projects and assignments to encourage their students to interact with people of diverse backgrounds. Deardorff (2011) stated that there were two ways to develop intercultural competence. One was through the curriculum; the other was through co-curricular activities. University offices, such as the Office of Diversity Management and Equal Opportunity, should sponsor more co-curricular activities to involve domestic and international students.

Students who had teaching experience scored higher on the CQS than students who did not have teaching experience. The United States of America is a country of diversity. The student teachers in a school which might have students from different ethnic groups and have different language and cultural backgrounds. Interaction with the students of diverse backgrounds in a classroom can assist pre-service teachers to develop their intercultural competence. Teacher education programs in colleges and universities should highlight the role of student teaching and accommodate the future teachers with real classroom teaching experience as early as possible.

The variable of gender was not a significant predictor of the pre-service teachers' levels of intercultural competence in this model. There were other variables that might affect the pre-service teachers' levels of intercultural competence, such as the number of culturally-oriented courses and the number of friends from other countries, which were not included in the model. Further research should take into account other factors that would impact the overall CQS scores. For instance, Hett (1993) suggested that interaction with persons from other countries and cultures might influence scores.

Language and culture are rooted in people's lives as means of maintain the heritage and distinction of a nation. On a larger scale, the world is an integrated and interrelated unit with groups sharing common values and world view. Intercultural competence enables communication between different ethnic groups and serves to create a more coherent community. Pre-service teachers, being educators of future generations, hold the responsibility of developing intercultural competence progressively. In doing so, they are expanding their abilities to appreciate different cultures and values. Through obtaining greater cultural awareness, pre-service teachers may cultivate intercultural competence within students in the classroom and contribute to the global-mindedness of citizens of the world.

REFERENCES

[1]   Amiri, A. N., Moghimi, S. M., & Kazemi, M. (2010). Studying the relationship between cultural intelligence and employees' performance. *European Journal of Scientific Research, 42*(3), 418-427.

[2]   Ang, S., & Van Dyne, L. (2008). Conceptualization of cultural intelligence: Definition, distinctiveness, and nomological network. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence theory, measurement, and applications* (pp. 3-15). Armonk, NY: M. E. Sharpe.

[3]   Ang, S., Van Dyne, L., Koh, C.K.S., Ng, K.Y., Templer, K.J., Tay, C., & Chandrasekar, N.A. (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation, and task performance. *Management and Organization Review, 3:* 335-371.

[4]   Báez, D. (2012). Cultural intelligence in foreign language classes. (Unpublished doctoral dissertation). Indiana State University, Terre Haute, IN.

[5]   Banning, B. J. (2010). Cultural intelligence: An examination of predictive relationships in a study abroad population (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3407397).

[6]   Caine, G., & Caine, R. N. (2006). Meaningful learning and the executive functions of the brain. *New Directions for Adult and Continuing Education* (110), 53-61. doi: 10.1002/ace.219.

[7]   Cui, Q. & Cui, T. (2015). Multilingualism alive. *Theory and Practice in Language Studies, 5*(5), 889-893. doi:10.17507/tpls.0505.01.

[8]   Cultural Intelligence Center. (2005). The Cultural Intelligence Scale (CQS). Retrieved from http://www.linnvandyne.com/papers/The%20CQS.pdf (accessed 29/1/2011).

[9]   Deardorff, D. K. (2011). Assessing intercultural competence. *New Directions for Institutional Research, 2011*(149), 65-79. doi: 10.1002/ir.381.

[10]   DeCapua, A., & Wintergerst, A. C. (2007). Crossing cultures in the language classroom. Ann Arbor, MI: The University of Michigan Press.

[11]   DeJaeghere, J. G., & Zhang, Y. (2008). Development of intercultural competence among US American teachers: professional development factors that enhance competence. *Intercultural Education, 19*(3), 255-268.

[12]   Earley, P. C., & Ang, S. (2003). Cultural intelligence: Individual interactions across cultures. Stanford, CA: Stanford University Press.

[13]   Fantini, A. E. (2009). Assessing intercultural competence: Issues and tools. In D. K. Deardorff (Ed.), *The SAGE handbook of intercultural competence* (pp. 456-476). Thousand Oaks, CA: Sage.

[14]   Franklin-Craft, A. (2010). An assessment of the intercultural competence of student affairs administrators (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3435119).

[15]   Gudykunst, W. B., & Kim, Y. Y. (2007). Communicating with strangers: An approach to intercultural communication. Shanghai, China: Shanghai Foreign Language Education Press.

[16]   Guo. Y., Arthur, N., & Lund, D. (2009). Intercultural inquiry with pre-service teachers. *Intercultural Education, 20*(6), 565-577.

[17]   Hett, E. J. (1993). The development of an instrument to measure global-mindedness (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 9408210).

[18]   Marginson, S., & Sawir, E. (2011). Ideas for international education. New York, NY: Palgrave Macmillan.

[19]   Posner, G. J. (2004). Analyzing the curriculum (3rd ed.). New York, NY: McGraw-Hill.

[20]   Rathje, S. (2007). Intercultural competence: The status and future of a controversial concept. *Language & Intercultural Communication, 7*(4), 254-266. doi: 10.2167/laic285.0

[21]   Sercu, L. (2005). Teaching foreign languages in an intercultural world. In L. Sercu (Ed.), *Foreign language teachers and intercultural competence* (pp. 1-18). Tonawanda, NY: Multilingual Matters, Ltd.

[22]   Shannon, L. M. & Begley, T. M. (2008). Antecedents of the four-factor model of cultural intelligence. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence theory, measurement, and applications* (pp. 41-55). Armonk, NY: M. E. Sharpe.

[23]   Spitzberg, B. H., & Changnon, G. (2009). Conceptualizing intercultural competence. In D. K. Deardorff (Ed.), *The SAGE handbook of intercultural competence* (pp. 2-52). Thousand Oaks, CA: Sage.

[24]   Tarique, I., & Takeuchi, R. (2008). Developing cultural intelligence: The roles of international non-work experience. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence theory, measurement, and applications* (pp. 56-70). Armonk, New York: M. E. Sharpe.

[25]   Van Dyne, L., Ang, S., & Koh, C. (2008). Development and validation of the CQS. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence theory, measurement, and applications* (pp. 16-38). Armonk, NY: M. E. Sharpe.

Qi Cui received his PhD in curriculum and instruction with a focus on language education from Indiana State University in May 2013. He is an Assistant Professor at the University of North Georgia in the United States of America. His research fields are language and culture acquisition with a current emphasis on intercultural communication. Dr. Cui is an active member of the Chinese Language Teachers Association, USA and Mid-Western Educational Research Association.