

Cultural Intelligence in the Diverse Classroom

By Ann M. Macaluso, Ed.D.

Abstract

It cannot be denied that our world has become increasingly interconnected. Improvements in transportation together with advances in technology have provided opportunities for individuals to explore the world beyond geographic and economic boundaries. Add in a global pandemic that forced individuals to interact via the Internet and you see the further erosion of boundaries and a recognition that life today can be essentially flat. A flattened world has fewer borders and allows for a fluid flow of people, goods, and services across national boundaries. To be successful in this flattened world, individuals must be culturally competent. Cultural competence is the ability to fluidly interact with individuals from other cultures and diverse backgrounds (Villagran & Hawamdeh, 2020). The purpose of this study was to identify if immigrant students lived multicultural experiences provided them with the competencies necessary for successful participation in an interconnected world. Participants were high school students in a large, diverse suburban public high school in the Northeast United States. Surveys were administered in-class via pencil and paper to students in general education and bilingual Social Studies classes. This non-experimental study utilized Earley and Ang's (2003) Cultural Intelligence Scale (CQS) to assess student's global competencies. The results of the study revealed that a student's immigrant generational status is related to their level of cultural intelligence. These results suggest that immigrant students, compared to their non-immigrant peers, may already have the globally desired skills, values, knowledge, and attitudes necessary to be highly successful leaders of tomorrow.

Introduction

Leaders across the globe recognize the need for individuals to be able to interact with people from other cultures. Whether during travel required for employment or throughout an individual's daily personal life, cross-cultural interactions with individuals born elsewhere are becoming the norm. In *The World is Flat*, Thomas Friedman (2005) recognizes the phenomenon of global melding. A flattened world has fewer barriers allowing individuals, goods, and services to flow freely across borders. Friedman identifies the necessity for individuals to be able to transcend cultural and language barriers to be competitive on a global scale. Being void of these cross-cultural competencies puts an individual at risk of losing

opportunities to others that already have these competencies. To prepare students for success in an interconnected world, schools must take the responsibility to ensure students are globally competent. Although immigration in the United States was on track to reach record highs, the COVID-19 pandemic coupled with unstable immigration policies has dramatically slowed immigration in recent years (Schachter et al., 2021). Despite these factors, the number of individuals born abroad is at one of its highest levels (Budiman, 2020) and this is reflected in classrooms across the country (Camarota et al., 2017). In order to meet the changing needs of society and to be proactive in preparing our children for the global environment in which they will thrive, educational leaders must develop not only curriculum but strategies to foster global competencies. They should recognize, harness, and cultivate the wealth of cultural intelligence already within the classroom to ensure that all students have the knowledge, skills, attitudes, and values necessary to interact with people from other cultures (Boix Mansilla & Jackson, 2011; Asia Society & OECD, 2018; UNESCO, 2014). The purpose of this study was to determine if students with international experiences by virtue of immigration possess some of the competencies necessary for successful participation in an increasingly competitive globalized environment. This study is centered around the following research question: Is there a difference in the cultural intelligence of a student based upon their immigrant generational status.

Review of Literature

This study was guided by several theoretical frameworks: Experiential and Constructivist Learning theories as well as the Cross-Cultural Learning Theory. Experiential and Constructivist Learning establishes that individuals that have a new experience will adapt by constructing new knowledge from that experience (Zijdemans-Boudreau et al., 2013). When faced with the same or similar experiences, individuals can draw from their memory of that prior experience and know how to behave or react (Piaget, 1965). If you walk on a wet marble floor and slip, you have learned that the wet marble may cause you to fall. The next time you walk into a building lobby with a marble floor after a heavy rain you decide, based on your experiences, to avoid the wet patches and walk ever so cautiously. The prior experience has informed your current action. When a student

immigrates to a new country, they often experience a new culture and language. Each new cultural interaction and experience will form knowledge from which to draw from for future decision making. Kolb (1984) explains the process by which individuals learn from prior experiences as the Experiential Learning Theory (ELT) which is the primary theory that guides this study. This construction of new knowledge falls within the constructivist learning theory and is specifically related to the theories of Piaget (cognitive constructivism) and Vygotsky (social constructivism) which imply the learning of new social norms and behaviors through interactions with others. When interacting with individuals from diverse backgrounds, one learns from the experience and then draws upon that new knowledge when faced with a similar cultural experience (Kolb, 2015). Vygotsky (1979) recognized that these personal experiences provide not only the ability to understand different cultures and behaviors, but also provides an individual with the ability to behave in a culturally appropriate manner by drawing from these experiences. The researcher has synthesized these points and represents them in **Figure 1** below.

Cultural Adaptation vs. Cultural Assimilation

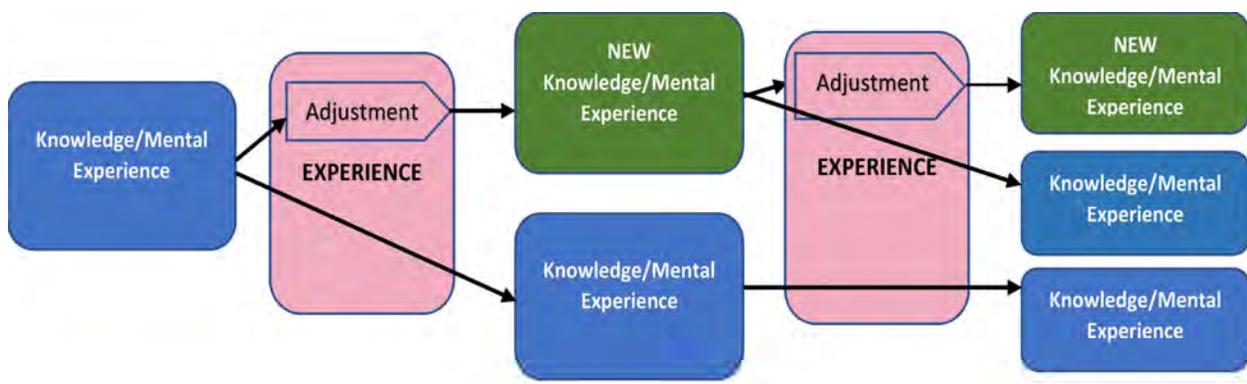
Kim (2001) further refines Vygotsky's premise of social constructivism and applies it to cultural experiences resulting in cross-cultural adaptation. Cross-cultural adaption should not be confused with cultural assimilation. The exposure to new experiences allows individuals the ability to adapt to these new situations, yet it does not eliminate prior cultural identification. In the late 20th century, Portes and Zhou (1993) describe how immigrants assimilated into American culture by rejecting their native language and conforming to the behaviors and ideals of their new communities. Cross-cultural adaptation differs in that it does not require assimilation into and becoming a member of the existing dominant culture, but rather indicates the acquisition of knowledge that allows for appropriate participation in the new culture, without losing one's cultural identity.

Many cross-cultural interactions are short-term. One may travel for several weeks for international busi-

ness purposes or to participate in a semester abroad while in college. Kehl and Morris (2008) studied the impact of short-term study-abroad programs on student global competencies at three private universities. A sample of students enrolled in a short-term study-abroad experience ($n = 144$) was utilized. An analysis of variance indicated that the difference in global competency scores for students that participated in a short-term study-abroad program and those that remained on campus ($n = 183$) was non-significant. LeCrom, Greenhalgh, and Dwyer (2015) sought to identify if students that participated in a short-term two-week study-abroad program had an increase in global competency scores. Their study included alumni of a master's program that included the option to study-abroad as part of a sports related curriculum. The participants ($n = 198$) had been out of the program for up to twelve years (2000-2012). Results of the t-test indicated that the levels of global competence for students that participated in the two-week study-abroad program were not statistically different from those that did not study-abroad, and an analysis of variance test indicated that the time since participation was not significant. Immigrants have a new country as their permanent home. These individuals tend to become more immersed in their new environment and as a result, are better able to adapt compared to those who are in a new cultural environment for a short period of time. According to Kim (2017), individuals that experience cross-cultural adaptation develop an openness to new information without concerns for making mistakes when encountering an unfamiliar cultural situation. As an individual experiences the cross-cultural adaptation process, he/she begins to add to their cultural identity, developing an intercultural global identity.

Educators have addressed the ideal of global competence by modifying curriculum to teach about other cultures through their history, government, practices, religions, and values. However, these efforts are stagnant and do not include the authentic lived experiences necessary for cultural adaptation to take place. The International Baccalaureate Organization (IB) offers a program of study that focus on global competencies. The goal of the IB is to develop

Figure 1: A framework for the construction of appropriate cross-cultural experiences based upon lived experiences



internationally minded students who develop a sensitivity and understanding of global issues and a recognition of oneself in a global context (International Baccalaureate Organization [IBO], 2017). Lope (2014) sampled students ($n = 620$) at a suburban high school and did not find a significant difference ($p = .17$) between the international mindedness scores of 9th grade students who came from a middle school that had the IB Middle Years Programme and those who came from a middle school that did not offer the IB programme.

Methodology

For this study, the U.S. Census bureau definitions for an individual's generational status were used which identify a first-generation individual as one that was born in another country; a second-generation individual has at least one immigrant parent; and a third-and higher generation individual as having both parents being born in the U.S. (U.S. Census Bureau, 2021).

An ex post facto research design was selected to identify if there is a relationship between student immigrant generational status and their level of global competency as measured by Earley and Ang's (2003) Cultural Intelligence Scale (CQS). Creswell (2015) identifies a causal-comparative research design as a method that compares outcomes from groups on an area of interest (in this study, generational status) on one or more dependent variables (CQS) without experimental manipulation. Data were analyzed using descriptive and inferential statistics for results on the independent variable (immigrant generational status) and CQS subscale. This study controlled for gender, years in the U.S., and Country of Origin. The CQS has four subscales: metacognition, cognition, motivational and behavioral. Separate analysis of variances were conducted for the dependent variable followed by appropriate post hoc tests (Tukey) to identify which groups differed from each other. This research sought a significance level of $p < .05$. Multivariate analysis of variance was conducted to identify if there was a relationship between the independent variable and the four subscales of the CQS. The significance level for these tests was set at $p < .01$.

Participants

A convenience sample of participants was obtained from a large suburban high school in the Northeast United States containing 10th - 12th grades. Approximately 82% of the students that attend this school are on free and reduced lunch and 29% are English Language Learners. Teachers in the Social Studies department ($n = 49$) were asked if they were interested in having their students participate in the study. Seventeen regular Social Studies teachers, three bilingual teachers and zero special education teachers agreed to offer an invitation to participate in the study to their students. A usable sample size of 809 surveys ($n = 809$) was obtained. This sample was comprised of 257 students that identified as 1st generation (32%), 451 that identified as 2nd generation (56%) and 102 students identified they were 3rd and higher generation

(13%). Demographic questions indicated that most of the 1st generation students ($n = 257$) were from South and Central American countries ($n = 202$). Many students that were 2nd or 3rd and higher generation identified as Hispanic ($n = 72$). Individuals that identify as Hispanic are those whose heritage includes "Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture" (U.S. Census Bureau, 2022).

Survey Instrument

Intelligence scales have been in existence for many years. Binet and Simon (1916) developed a scale to numerically measure the magnitude or quotient of an individual's intelligence. This Binet-Simon Scale or Intelligence Quotient (IQ) test was the precursor to the Stanford-Binet IQ test and has inspired many similar measurement instruments. The ability to effectively adapt and understand local culture is measured by cultural intelligence, or CQ (Earley & Ang, 2003). The CQS was originally developed for use within the field of business to identify individuals within an expanding workforce that could successfully interact within global markets as well as with an increasingly diverse domestic employee base (Earley & Ang, 2003). CQ is characterized by an individual's motivation to interact in a culturally responsive manner and has four components or subscales. Metacognition is the process of thinking about thinking. It incorporates higher order cognitive processes that allows an individual to reflect upon the knowledge they have, plan, and revise that knowledge in order to connect new information to prior learning experiences. Individuals with high metacognitive CQ are "consciously aware of the cultural preferences and norms of different societies prior to and during interactions" (Ang & Van Dyne, 2015, p. 5). Cognitive CQ is the knowledge an individual may have regarding the practices, religious rituals, as well as the economic, legal and social systems of different cultures. Individuals with high cognitive CQ, due to their knowledge base, are better able to interact in culturally diverse settings (Ang & Van Dyne, 2015). Motivational CQ is the intrinsic desire to engage in cross cultural situations (Early & Ang, 2003). Individuals with high motivational CQ willingly and actively seek opportunities to participate in situations which involve different cultures. Behavioral CQ reflects the ability of an individual to exhibit appropriate behavior, both verbal and nonverbal when in cross-cultural situations. For example, when having a meal, finishing what is on your plate is viewed very differently in different cultures. Some hosts may view a clean plate as an indication that they did not serve you enough as they did not satisfy your hunger, and others view a clean plate as a sign that you are not wasteful and enjoyed what was served. Individuals with high behavioral CQ would not only have the cognitive CQ (knowing), the motivational CQ (desire), but would follow through with action (Early & Ang, 2003).

Results

A one-way ANOVA shows that CQS scores differ significantly based on generational status ($F(2, 806) = 23.08, p < .001, \eta^2 = .05$). A post hoc Tukey indicates CQS

scores for 1st generation students were significantly higher than scores for both 2nd generation students ($p < .001$) as well as 3rd and higher generation students ($p < .001$). The difference between 2nd generation and 3rd and higher generation students was nonsignificant ($p = .422$). A multivariate analysis of variance (MANOVA), used to identify any relationship between student generational status and the separate components of the CQS, also reached significance (Wilks' Lambda = .945, $F = (8, 1606.000) = 5.91$, $p < .001$, $\eta^2 = .06$). Subsequent one-way ANOVAs were estimates for each subcomponent, each with a significance level set at $p = .01$. Mean scores for the subcomponents of the CQS are provided in **Table 1**. Each of the four subcomponents of the CQS reached significance, suggesting scores differed by generational status for Metacognitive, Cognitive, Motivational, and Behavioral CQ. These results indicate that the level of CQ diminishes with each generation. Immigrant students are more culturally intelligent than 2nd generation students and both 1st and 2nd generation students are more culturally intelligent than 3rd and higher generation students. Immigrant students are more aware of cultural differences, are aware of the knowledge they have relative to social norms, have the desire to seek opportunities to engage with individuals from other countries and cultures, and utilize their knowledge to behave in a culturally appropriate manner in cross-cultural situations.

Discussion

As our world becomes increasingly interconnected and borders between economies continue to become more fluid, the need for students to be globally competent becomes critical for personal and professional success. World leaders and academic researchers have established that authentic international experiences increase an individual's ability to be globally competent. Study-abroad experiences are restricted to a specific period of time. Additionally, these study-abroad experiences are typically available to students enrolled in a university program and are experienced by a limited number of students that may have the time and/or financial resources to participate in them. Those that can participate in study-abroad experiences typically are not from underrepresented groups nor are they from economically disadvantaged backgrounds, thereby

excluding a critical demographic of American society (Norton, 2008).

Much of the literature on global competencies identifies research focused on the collegiate level or within the business domain. Measuring and developing global competencies while a student is already in college or after he or she is gainfully employed is after the fact and does not address college and career ready goals designed to ensure that k-12 students have the necessary skills to be successful in their personal and professional lives. So how do educators "teach" global competencies. Educators must take inventory when students first enter the classroom allowing the educator to create custom "instructional environments that propel learning by connecting new learning to each student's background and prior experience" (D'Agati, 2017). Vygotsky and Piaget have long theorized that knowledge is not passed from teacher to student, but constructed from what students know and experience, with help from the instructor. Immigrant students already have these authentic cross-cultural experiences yet have been neglected in the literature. This study suggests immigrant students in the k12 classroom are more globally competent as evidenced by significantly higher scores on the CQS.

Conclusion

The study revealed that immigrant students have statistically higher scores on the CQS than students that are not immigrants. The immigrant students in this study have international experiences by virtue of their immigration to the United States and have constructed new knowledge evidenced by their higher scores. These students have the competencies necessary for success in a globalized world, and educators must find a way to harness and share these lived experiences so that all students graduate as globally competent individuals.

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Table 1					
Mean Scores for Each Subcomponent of the CQS Based on Student Generational Status					
Generation	n	CQS Subscales			
		Metacognitive	Cognitive	Motivational	Behavioral
1st	246	5.24 (.93)	4.20 (1.16)	5.45 (.95)	4.72 (1.16)
2nd	451	4.91 (1.02)	3.85 (1.13)	5.09 (1.05)	4.34 (1.09)
3rd and higher	102	4.93 (1.06)	3.66 (1.20)	5.00 (1.05)	4.24 (1.09)

Note $p < .01$, Standard deviations in parenthesis.

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