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# Links Between Principal Intercultural Competency and Teacher Trust in EARCOS International Schools

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Links Between Principal Intercultural Competency and Teacher Trust  
in EARCOS International Schools

by Theodore John Mockrish

A Dissertation Draft Presented to the Graduate and Research Committee of Lehigh University in  
Candidacy for the Degree of Doctor of Education in Educational Leadership  
Lehigh University

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Approved and recommended for acceptance as a dissertation in partial fulfillment of the requirements for the degree of Doctor of Education.

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Throughout this process of completing this study, there have been several key people who have supported my efforts over the past several years. Any good work is never the result of a single person's efforts; I was introduced to the idea that rather than building my own academic wall, this work would contribute to an existing edifice that is the body of existing research particular to the work at hand. This is far more humbling of a model, and one far more grander to pursue than one's individual, isolated efforts.

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## **ABSTRACT**

This study hypothesized that higher principal intercultural competency leads to greater trust from teachers toward their principal in international schools. Two distinct and tested inventories, the Global Perspective Inventory (GPI) and the Omnibus Trust Scale's Comprehensive Teacher Trust Survey (CTTS), were used to test this hypothesis. The research informs intercultural competency theory, advances trust theory, and contributes to a more thorough understanding of intercultural competency and trust in international schools in the East Asia Regional Council Of Schools (EARCOS).

The study found no relationship between the intercultural competency of international school principals within the EARCOS region and teacher trust among their faculty members. Multiple regression analysis on predictor variables indicated that there were hypothetical relationships between a principal intercultural competency based on his or her ethnic minority status in the school within which they serve and a principal's multilingualism. Predictor variables related to schools hypothetically influenced teacher trust in their principals. These predictors include the division the teacher serves in, the size of the school, the profit status of the school, and the school's religious affiliation.

School leaders may consider aspects of their own organizational structures, skill sets, and cultural awareness of the candidates they seek to hire at their schools, and variables that may contribute to trust development or to mitigate issues that reduce trust among staff members. This study suggests that a new hypothesis is needed regarding variables present in international school culture may suppress, as well as enhance, individual culture, language, and multiculturalism may be worthy of investigation.

## CHAPTER 1

There is a growing body of research on the nature of international schools. As small, independent entities, international schools have been, until recently, overlooked as an area of focus for research (Cambridge & Thompson, 2001, 2004; Fine & McNamara, 2011). More and more, research describes these often-contradictory social organizations, but there is still much to be discovered. International schools are complex communities whose members may be required to navigate, negotiate, and collaborate within new and unknown cultural perspectives, and often situated in host countries whose culture is quite different than that created by the school community.

International school principals often serve communities with diverse populations of teaching faculty, students, and parents. Intercultural competency is a growing area of research, as it is increasingly recognized as an integral skill set for international school principals to possess (Irving, 2009; Tang, Yin & Nelson, 2010). Understanding, collaborating, and leading culturally diverse organizations requires leaders who can responsibly, intelligently, and compassionately interact with their community members.

Trust is an important social construct that builds individual, team, and organizational capacity. There is a significant body of research that describes trust in the United States and other national school systems (Bryk & Schneider, 2002. Hoy & Tschannen-Moran, 2001; Kramer, 1996; Sutherland & Yoshida, 2015); additionally, trust in global business settings has also received ample attention (Dietz, Dietz, & Hartog, 2006; Mishra & Mishra, 2013; Mishra, Schwartz & Mishra, 2012). However, the ways that trust develops and operates in multicultural,

international educational settings is an area where there is still much to be learned (Brooks & Normore, 2010).

The purpose of this study is to investigate the links between an international school principal's intercultural competency and trust development within his or her community. Specifically, does a school leader's intercultural competency, including his or her attention to intrapersonal, interpersonal and cultural cognitive skills, influence the level of trust created in the community? The larger purpose of this work is to contribute to the development of causal hypotheses and theories in this area.

A review of the literature on intercultural competence and trust will highlight the importance and connections to be examined in this study. First I will review the literature on intercultural competence, models of intercultural competency, and attributed skills sets to refine understanding within the context of international schools. Secondly, I will present the literature on the conditions necessary for trust to exist, facets of trust, organizational efficacy from trust, and inhibitors to organizational trust. I will define the working model of trust for this paper. A brief description of the context of this study, international schools, will help frame the purpose and need for this study.

### **Intercultural Competency**

Intercultural competency (IC) is the ability to act in culturally appropriate ways, and largely dependent on a person's intercultural sensitivity, or the degree of awareness a person has of cultural differences beyond his or her own (Hammer, Bennett, & Wiseman, 2003; Ibad, 2010; Spitzberg & Changnon, 2009). "Intercultural Competence is most often viewed as a set of cognitive, affective, and behavioral skills and characteristics that support effective and appropriate interaction in a variety of cultural contexts," (Bennett, 2008, p. 97). Intercultural

sensitivity is an individual's level of awareness of relevant cultural differences from his or her own culture, whereas intercultural competence is one's ability to consciously participate in interculturally appropriate ways (Hammer, Bennett & Wiseman). A measure of one's intercultural skill sets is likely to reveal one's intercultural competency.

Maintaining intercultural competency requires continual attention, awareness, and effort. Successful intercultural competency requires an intentional and purposeful effort of communication between people of differing cultural backgrounds, as unconscious acts of communication across cultural context cultures are mostly ethnocentric and ineffective (Bennett, 2013). Successfully and constructively interacting with cultures outside our own is not an innate ability. As an indication of how unnatural intercultural competency truly is, Bennett (1998) asks us to look no further than our primate past, the fight-or-flight instinct, and our history of conversion, war, and genocide. As a modern example, the intolerance of others' ideas is so anathema, like ISIS and the Taliban, that people are willing to wage wars, destroy countries, and murder entire generations of people rather than coexist or seek consensus.

### **Intercultural Competence and Cultural Perspective**

Zaharna (2009) regards Edward Hall as the father of the study of intercultural competence, whose seminal work delved heavily into many cultures, but classified them as monolithic blocks, like American culture, Arab culture, or German culture. Bennett (1993) refers to these cultural blocks as high levels of abstraction towards culture; low levels of abstraction are more specific to sub-groups within a larger culture. For instance, to understand a specific African culture in an interculturally competent manner, one must understand first, the aspects of universal African culture, and second, the aspects of that individual African culture (Nwasu, 2009). Consensus building, emphasis on community, and friendly hospitality may be

universal sub-Saharan African mores, but manifest differently in each unique culture (Nwasu).

Thus, to become interculturally competent, one must have an understanding of both the general culture and the specific culture with which one interacts. These are the main differences between etic research based in universalities and emic research based on endemic manifestations; etic and emic approaches will be discussed further throughout this paper.

### **Models of Intercultural Competency**

While culture cannot be homogenized, there are models of shared thoughts or behaviors that may be drawn to assess relationships (Eriksen, 2007). Various models of intercultural competency have been developed by researchers across many fields, both within the study of intercultural competency or nested in larger continua like global competency and global citizenry (Brasscamp, Brasscamp & Engberg, 2014; Deardorff, 2011; Hammer, Bennett & Wiseman, 2003; Hunter, White & Godbey, 2006).

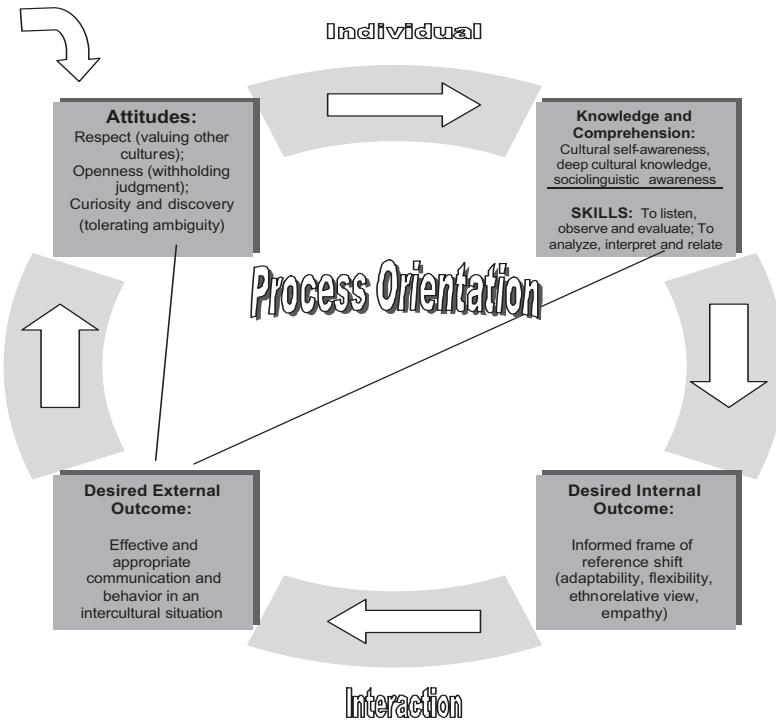
In any model, intercultural competency needs to be understood as a behavior with core attitudes, skills and knowledge that is context specific (Barrett, 2012). A behavior may be viewed as competent in one context or culture and incompetent in another (Spitzberg & Changnon, 2004); competence, in this definition, is a social evaluation with two criteria: appropriateness and effectiveness (Spitzberg, 2000).

Spitzberg and Chagnon (2009) reviewed models of intercultural competency aligning them into five model groups: compositional models detail the components of IC without showing relation; co-orientational models describing how meaning is constructed during interaction; developmental models depict the stages of growth related to intercultural competency; adaptional models propose how individuals change their stance dependent on cultural context; and causal path models postulate causal relationships specific to the different components of intercultural

competence. In each of these models, simple exposure to another culture is not sufficient to develop cultural competency (Deardorff, 2011); it requires a reflective process of critical thinking, attitudes of openness and curiosity, and the ability to see others' perspectives (Deardorff).

Deardorff's (2006) model (Figure 1) is an adaptational model that portrays intercultural competency as a dynamic process that requires intrapersonal skills (self-knowledge), the ability to listen effectively, analyze, interpret and relate to others (interpersonal and cognitive skills) and through specific behaviors including adaptability, flexibility, empathy, and an ethnoculturalist stance. Through active engagement, participation, observation and reflection, an individual becomes more competent within the culture with which they are involved. This leads to a set of attitudes (respect, openness, curiosity, ability to handle ambiguity) and the development of an ethnoculturalist perspective (Deardorff).

Figure 1: Process Model of Intercultural Competence (Deardorff, 2006, 2009)



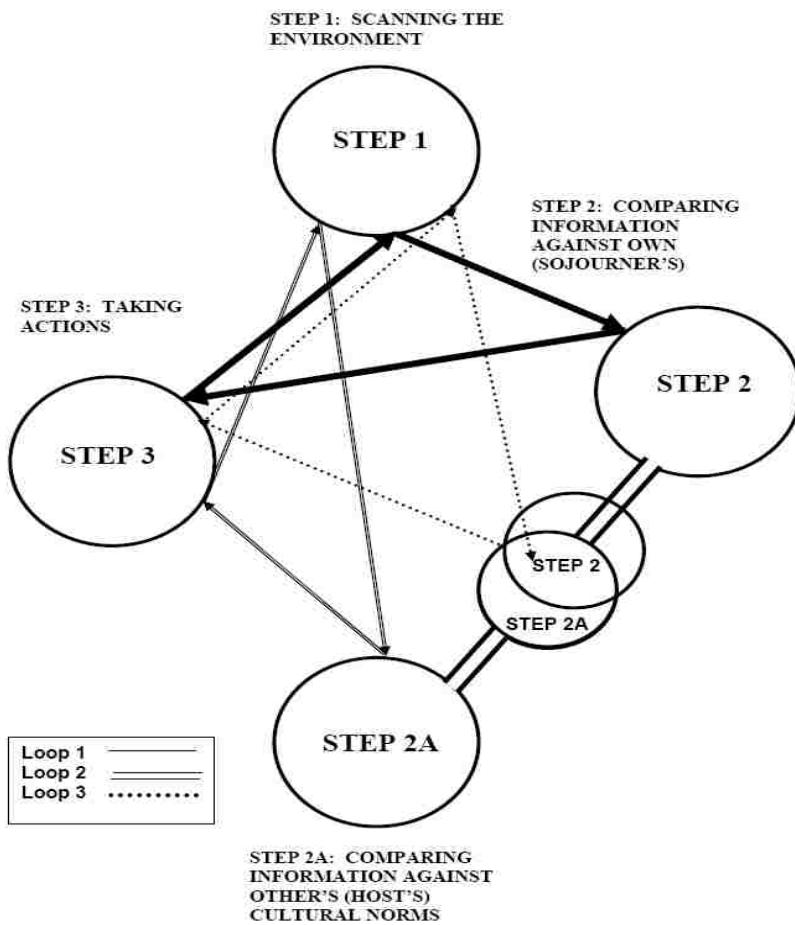
*Notes:*

- Begin with attitudes; move from individual level (attitudes) to interaction level (outcomes)
- Degree of intercultural competence depends on acquired degree of attitudes, knowledge/comprehension, and skills

Copyright 2006 by D.K. Deardorff

Bhawuk, Sakuda and Munusamy (2008) created a co-orientational/adaptational model of intercultural competence (Figure 2) in that through recursive feedback, a person may alter his or her interactions within a new culture based on the feedback received from interactions. They describe people who may change patterns and behaviors, like cultural chameleons, in their new context without understanding why they do so. “By definition, members of different cultures experience different organizations of reality and thus the use of one’s self as a predictor of how others will respond to messages is unlikely to be successful,” (Bennett, 2013, p. 4). It is only through comparison of sojourner norms with host country norms that relevant action and understanding may take place.

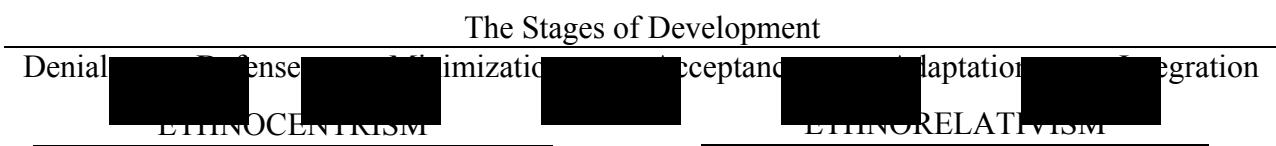
Figure 2. Triple Loop Cultural Learning Model (Bhawuk, Sakuda & Munusamy, 2008)



The Developmental Model of Intercultural Sensitivity (DMIS) is, as the name suggests, a developmental model graphed as a continuum with ethnocentrism and ethnorelativism defining each end of the spectrum of intercultural sensitivity. The DMIS describes a person with ethnocentric orientations as avoiding or denying other cultures, while those with more ethno-relative orientations seek out cultural difference and accept or adapt to them (Hammer, Bennett & Wiseman, 2003). Six kinds of experiences constitute this continuum, including denial, defense, and minimization (on the ethnocentric end of the spectrum) and acceptance, adaption, and integration (on the ethnorelativist end) (Bennett, 2004). Thus, on the DMIS developmental

continuum, intercultural competence can be described negatively and positively. Individuals may be placed either at the negative end of the continuum if their behavior denies, inhibits, or reduces intercultural understanding. Conversely, individuals may be placed at the positive end of the continuum when their behavior accepts, develops or promotes intercultural understanding. Research that describes these development behaviors addresses the underlying skills, attitudes, and understandings that frame each stage.

Figure 3. The Stages of Intercultural Competence Development (Hammer, Bennett & Wiseman, 2003)



### Ethnocentrism

Individuals in the denial stage see their culture as the only frame of reference and disavow cultural differences, are highly polarized, and believe in the superiority of their own culture (Medina-Lopez-Portillo, 2004). “Defense against cultural difference is the state in which one’s own culture (or an adopted culture) is experienced as the only viable one—the most “evolved” form of civilization, or at least the only good way to live.” (Bennett, 2004, p 3.)

Individuals who minimize differences and augment similarities recognize cultural differences, but see them as essentially similar to their own (Hammer & Bennett, 2001); these individuals still see their own cultural schema as central and universal (Hammer, Bennett & Wiseman, 2003). The main barrier to intercultural communication is the inability to perceive differences in the first place. “Many people naively assume there are sufficient similarities among peoples of the world to make communication easy.” (Barna, 1994, p. 338) The minimization of cultural differences may be the most insidious and difficult to identify of the

three ethnocentric behaviors on the continuum.

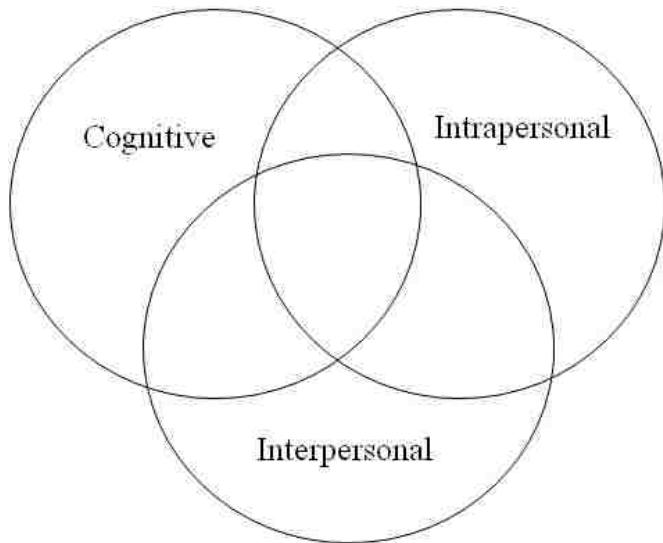
### **Ethnorelativism**

In acceptance, individuals recognize the subtleties of other cultures as different approaches equal in value to their own (Medina-Lopez-Portillo, 2004). At the ethno-relativist end of the DMIS, adaptation and integration are characterized, respectively, by a person's ability to consciously and effectively utilize the constructs of another culture and by an expansion of self to include another culture (Hammer, Bennett & Wiseman, 2003).

### **Skills Attributed to Intercultural Competency**

There is no blueprint for developing intercultural competence (Cushner & Mahon, 2009); however, specific personality traits have been linked to greater intercultural competence, including: curiosity, cognitive flexibility, cultural humility, an ability to suspend judgment, and tolerance for ambiguity (Bennett, 2009; Deardorff, 2009). Brasscamp and colleagues (2014) holistically integrate cognitive, intrapersonal, and interpersonal growth and development towards intercultural competence for university students before and after semesters abroad. In doing so, components of intercultural competency are connected through personal practice incorporating aspects of compositional, developmental, and causal models.

Figure 4: Domains of the Global Perspectives Inventory (Brasscamp, Brasscamp, & Engberg, 2014)



### **Measuring Intercultural Competence**

There are a host of intercultural inventories for assessing competency that detail the sensitivity, knowledge, and abilities a person may possess to be culturally competent. The following is a sampling of the range of inventories related to the models described by Spitzberg and Chagnon (2009): compositional, co-orientational, developmental, adaptional, and causal. Each of the inventories below measures some aspect of self-awareness, awareness of others, and cognitive skills to address and analyze one's experiences in relation to other cultures.

Deardorff (2011) supports assessments that base intercultural competence as a process and that assess four critical areas that occur within a cycle of competency: reflection, critical thinking, attitudes and perspective. Deardorff cites perspective as the only aspect of intercultural competency that experts agree upon. Perspective is the result of reflecting upon and understanding one's own cultural stance, critically listening to and understanding others' points of view, and objectively contextualizing all participants' relationship to each other. Regardless of the many definitions that exist to describe the ability to successfully interact with members of

other cultures, each model describes a similar quality (Bennett, 2009).

Cultural intelligence (CQ), a multidimensional construct similar to intercultural competence, directly relates to a person's ability to effectively operate in a multicultural environment (Kolosova, 2014). Broadly defined, cultural intelligence is a person's ability to adapt to and effectively operate within unfamiliar and diverse cultural settings (Ang, Van Dyne, Ko, Ng, Templar, Tay, & Chandrasekar, 2007). CQ is a four-factor model that includes meta-cognitive, cognitive, motivational, and behavioral components (Ramalu, Rose, Kumar, & Uli, 2010).

The Intercultural Communication Competency (ICC) model trains people over time to develop competencies (attitudes, skills, and knowledge) to mediate within a multicultural context; ICC development pays particular attention to self-knowledge, social skills, cultural awareness, and awareness of organizations (Dusi, Messitti & Steinback, 2014).

Cross-Cultural Adaptability (CCA) is a model that examines one's readiness to interact with others from another culture or to adapt to life in another culture (Davis & Finney, 2006). CCA was developed in 1987 by Kelley and Myers after a review of literature, and consists of a four-factor checklist, including flexibility, emotional resilience, perceptual acuity, and personal autonomy. The Cross-Cultural Sensitivity Scale (CCSS) was developed to measure dominant culture sensitivity and tolerance towards other cultures in Canada and showed a high correlation between verbal and full IQ scores (Pruegger & Rogers, 1993).

The Intercultural Developmental Inventory (IDI) was developed by Hammer and Bennett (2001) to directly measure the qualities found in the DMIS. The IDI uses 50 questions and a set of 10 demographic questions to reveal the respondents stages of intercultural competency. The IDI has been developed for both organizations and educational institutions to promote research

in these two distinct areas (IDI, 2015).

The Global Performance Inventory (GPI) was originally developed by Brasscamp (2012) to measure university students' intercultural competency prior to, and after, semesters abroad. The GPI focuses the milestones a person from any age group or cultural background can use to understand how they think about, feel towards, and relate to others. In this respect, the GPI can be used by a person or organization to assess a person's growth over time after engagement in intercultural settings. As such, it can also reveal a person's potential and successful practice within intercultural settings.

### **Intercultural Competence and Job Performance**

Businesses and organizations are finding that there is a competitive advantage to having effective internationally placed personnel (Zhang & Dodgson, 2007). However, an important aspect of this advantage is placing leaders internationally who are able to work well within new cultural settings. People engage or disengage from work and perform or avoid tasks for a variety of individual and situational factors, including: identity and self-esteem, the centrality of importance of one's work, willingness to endeavor for an organization, and alienating effects of social systems (Kahn, 1990). Researchers have also discovered that when people's personalities and the rigors of their job match, there is greater job satisfaction and likelihood of staying with the organization longer (O'Reilly, Chatman & Caldwell, 1991). Alienating effects for international workers include a person's inability to accept or adapt to cultural differences and make cross cultural connections, resulting in ineffectiveness in the work place, dissatisfaction, high turn over, and loss of revenue (Ramalu et al, 2010). In comparisons of managers with international and domestic job placements, those who work abroad tend to have higher levels of intercultural awareness including cultural flexibility, non-ethnocentrism, communication ability,

relational ability, and prior international experience (Rose, Ramalu & Uli, 2010). The reality of today's workforce is that workers from many different cultures are bound to work together, regardless of geography (Deardorff, 2009).

### **Intercultural Competence and Leadership**

Researchers and practitioners of intercultural competency are both highly interested in how successful global business leaders develop (Bird, Mendenhall, Stevens & Oddou, 2010; Caliguri & Tarique, 2009). Intercultural competency training, models, and research have been developed for grocery retailing (Ihtiyar, Ahmad, & Osman, 2014); teaching business Russian (Nazarenko, 2014); educating business graduates in 21<sup>st</sup> century communications (Briguglio, 2007); the travel industry (Muñoz & Katsioloudes, 2004); and understanding activators for international buyers in international markets (Ihtiyar & Ahmad, 2014), to name a few. There is a significant body of research detailing models of intercultural competency for global leaders and managers to improve cooperative effectiveness world-wide (Bennett, Aston & Colquhoun, 2000; Johnson, Lenartowicz & Apud, 2006; Morley & Cerdin, 2010).

These models for international business look to operationalize models from academic research of the cognitive, affective, and behavioral intercultural competencies to improve individuals' responses (Brownell, & Goldsmith, 2006; Lloyd & Härtel, 2010). Similar proposals for operationalizing research models of intercultural competency for educational leaders are also growing (Irving, 2009; Tang, Yin & Nelson, 2010). As globalization continues to rise, the need for school leaders that are globally aware and interculturally competent also grows (Irving, 2009). Revitalizing school leadership programs with a focus on global awareness will support current and future leaders to make more informed decisions when addressing a more globalized society (Fine & McNamara, 2011).

In social organizations, like schools, leaders must be able to navigate and communicate with educators from many different cultural backgrounds (Irving, 2009). Staffing decisions in international educational organizations are often based on pedagogical and academic competencies and years of experience (Greenholtz, 2000). He suggests a model that specifically utilizes the Developmental Model of Intercultural Sensitivity (DMIS) and the Intercultural Development Inventory (IDI) to assess educator and school leader intercultural competencies as equally valid criteria for recruitment and training. Often, expatriate teachers' résumés list travels and languages spoken as evidence of intercultural abilities, but expatriate teachers tend to live in insulated communities that only become more isolating with more experience (Greenholtz). The transformation of international educational institutions' hiring and promoting of intercultural competency among teachers and leadership will come when intercultural competency is held in the same high regard as academic and pedagogical ability.

Bustamante, Bustamante and Nelson (2009) checked the validity of the Schoolwide Cultural Competence Observation Checklist (SCCOC) and found, through responses from school leaders from two large western states, that school programs are integral to the development of cultural competency and that school culture and climate are integral to the growth of schoolwide intercultural competency. School leaders indirectly influence student achievement through developing high teacher morale (Hattie, 1992). Developing distributed leadership has a direct correlation to building morale and school culture and climate, as it empowers teachers within the culture of the school (Sheppard, Hurley & Dibbon, 2010). The interpersonal communication necessary to the development of distributive leadership requires successful leaders to be interculturally competent (Irving, 2009). Interculturally competent school leaders are also more likely to engender trust in their communities, as they are able to describe, understand and bridge

differences, build respect for diversity, and promote school culture that is accepting of many viewpoints.

### **The Nature of Trust**

Trust is a foundational, dynamic social construct that bridges virtually all human relationships. Its power allows for positive human interactions between unknown parties, from personal one-to-one interactions to those between large organizations. The power of trust can develop instantly or over time. It may grow in strength based on personal and organizational history, and yet remain so fragile that it can be destroyed by a single act of betrayal.

Trust has been the focus of research across multiple disciplines and over many decades, yet there is no consensus on the definition of trust (Hosmer, 1995). However, several researchers (Hoy & Tschanen-Moran, 2001; Kramer, 1996; Mishra, 1999; Sutherland & Yoshida, 2015; Tschanen-Moran, 2012) consistently describe qualities of trust that begin to create a dynamic, holistic model. From a philosophical perspective, trust engenders ethical and moral behavior (Baier, 1986; Hosmer, 1995). In the field of education, many researchers have also sought to define how tightly-correlated facets of trust interact together. Tschanen-Moran (1999, 2004) uses five facets to define trust as "...one's willingness to be vulnerable to another based on the confidence that the other is benevolent, honest, open, reliable, and competent." (Tschanen-Moran, 2004, p. 17) Tschanen-Moran's model also includes how different stakeholders perceive each facet's importance. Mishra (1999) describes similar, but fewer, facets of trust to define trust in an educational setting. This paper will utilize Hoy and Tschanen-Moran's definition of trust as one's willingness to be vulnerable to another party based on the confidence that the latter party is benevolent, reliable, competent, honest, and open (Hoy & Tschanen-

Moran, 1999; Tschannen-Moran & Hoy, 1998). This paper will broadly define these five facets of trust and discuss their importance to different members of school communities.

### **Facets of Trust**

The literature contains a variety of definitions of the qualities Tschannen-Moran identified as the five facets of trust, including benevolence and honesty (Tschannen-Moran & Hoy, 1999). Belief in benevolence, that others will operate with the best of intentions and do no harm, and honesty, are facets common to many researchers' definitions of trust (Larzelere & Huston, 1980; Mishra & Mishra, 1994; Tschannen-Moran & Hoy, 2004). Benevolence is also described as exercising good will and refraining from exploiting vulnerability, even when there is an opportunity to do so (Cummings & Bromily, 1996). Vulnerability implies an imbalance of power in that the trusting party has little or no control over whether the recipient of trust will behave benevolently or otherwise. (Ting-Toomey, 2009). This applies in situations of mutual trust between equal parties and those in asymmetrical power relationships. Honesty is a cornerstone of trust (Cummings & Bromily) and concerns a person's integrity. Tschannan-Moran (2012) describes an honest person as one who is truthful from his or her own perspective, and that a person is truthful from that person's perspective of events.

Researchers also include openness, reliability, and competence as facets of the construct (Fulmer & Gelfand, 2012; Mishra & Mishra, 1994). Openness includes sharing information and control, thereby making oneself vulnerable (Tschannen-Moran, 2012). Reliability is not simply being consistent and predictable, as one can be consistently ineffective; reliability, in this definition, requires consistent competence (Tschannen-Moran). Reliability implies a confidence in one's ability to accomplish what one sets out to do (Mishra, 1996).

Competence most often describes an effective set of skills or abilities; however, when describing behaviors, competence in one context may not be viewed as such in a different context (Spitzberg & Chagnon, 2009). This is because cognitive factors alone do not define competence, but include emotional and affective components that change from context to context (Dervin, 2010). According to Tschannen-Moran and Hoy (1999, 2004), all five facets are interdependent and vital to trust. Depending on contextual factors, such as the people involved and their places within an organizational hierarchy, the five facets may play varying roles in forging trust and its development or decline. At various times, to various people, at different organizational levels, these facets play varying roles in trust creation, development or decline (Mishra & Mishra, 2013).

### **Risk, Vulnerability, and Confidence**

While there are differences endemic for how trust is created, maintained or declines within various organizational hierarchies and disciplines, there is broad consensus regarding the conditions that must be present for trust to exist between individuals and organizations; these include risk, vulnerability, and the confidence that each party involved will do no harm to the other (Rousseau, Sitkin, Burt & Camerer, 1998). Trust can only exist when both parties have something to lose if trust is breached (Mishra & Mishra, 2012), make themselves vulnerable to each other (Mishra, 1996), and rely on each other based on a confidence they will not be harmed (Baier, 1994; Edmundson, 2004).

Risk and trust are inextricably linked, although there is little agreement on whether trust or risk is the antecedent or outcome of the other (Mayer, Davis & Schoorman, 1995). Risk, as an opportunity for trust, may be viewed as its antecedent (Tschannen-Moran & Hoy, 2000). If trust is viewed as a measure of the one's level of confidence in another, it acts as the antecedent to

taking risks (Rousseau et al, 1998). Das and Teng (2003) distinguish between subjective trust, which develops from a person's experience and is reflective of perceived risks, and behavioral trust which is based on organizational or positional history and reflects the degree of risk taken. Individual or organizational capacity for trust and the propensity to take risks are directly proportional to each other (Schoorman, Mayer & Davis, 2007). According to Rousseau, Sitkin, Burt, and Camerer (1998), "Because risk and interdependence are necessary conditions for trust, variations in these factors over the course of a relationship between parties can alter both the level and the form that trust takes" (p. 395).

### **Trust and Organizational Efficacy**

Trust is a multifaceted social construct that lubricates organizational interactions (Tschannen-Moran, 2004). Research shows that trust is positively correlated with improved effort and citizenship behaviors (Cosner, 2009; Konovsky, Konovsky & Pugh, 1994), teamwork (Fulmer & Gelfand, 2012), and job satisfaction among group members (Garmston, 2004; Lewicki, McAllistar & Bies, 1998). Trust is highly important to social organizations, because participants operate with greater efficacy, and performance outcomes improve when strong trust relationships exist at and between each level within an organization (Bryk & Schneider, 2003; Dirks & Ferrin, 2002).

In schools, trust supports stronger learning environments for students and teachers by increasing instructional efficacy and organizational efficiency (Parish & DiPaolo, 2006; Tschannen-Moran, 2012). Trust also binds intra-organizational interactions more cohesively, positively, effectively and efficiently (Baier, 1986). Trust facilitates adaptive responses in non-transactional situations, such as aspects of a job beyond contractual obligations, motivating faculty through change, or crises that effect an organization (Goodwin, 1996). In fact, trust is

diminished in schools where principals rely on bureaucratic devices and greater trust found in schools where principals cultivate professionalism among faculty members (Tschanen Moran, 2009). Ideally, trust exists at all levels of social organizations.

### **Relational and Positional Trust**

At individual, team, and organizational levels, hierarchy influences trust (Mishra, 1996). Authority itself may be a basis for trust, as the mantle of position and power may inspire trust, especially when those in positions of authority perform their responsibilities with integrity (Heifetz, 1994). However, trustworthiness may also be based on relational concerns, like the personal relationship between subordinates and managers, rather than position in terms of accepting decisions and dispute resolution (Tyler & Degoey, 1996). Teachers, as subordinates, remain acutely aware of even minor actions in determining how much they trust principals and often remember both positive and negative trust-related events more so than principals do, with negative trust events often outweighing trust-building events for teachers (Kramer, 1996).

Trust is important for both teachers and principals, yet the facets of trust each positional group seeks tends to focus on different facets of trust. In the asymmetrical power relationship between teachers and principal, teachers desire openness and benevolence from principals, whereas principals look for reliability and competence in teachers (Tschanen-Moran, 2004). Teachers often must rely on the good will of principals as they experiment with new teaching strategies and, inevitably, make mistakes (Hoy & Sabo, 1998). Principals who involve teachers in an important decision risk losing control of the decision while remaining responsible for the outcome (Hoy & Tarter, 1995).

## **Organizational Inhibitors of Trust**

A new employee's perception that organizational structures are in place may perpetuate greater initial trust (McKnight, Cummings & Chervany, 1998). However, at an organizational level, instruments meant to build trust, such as contracts and job descriptions, may actually erode trust (Molm, Takahashi & Peterson, 2000; Sitkin & Beis, 1994). The very instruments that develop initial trust erode trust over time. Additionally, these organizational controls that include job descriptions, contracts, and rules and regulations, are not as powerful as organizational motivators as trust is (Mishra, Schwartz, & Mishra, 2011). It is impossible for a contract to cover all aspects of a job's requirements making the development of generalized trust necessary (Murnighan, Malhotra, & Weber, 2004).

Extreme elaborations of bureaucratic rules are likely to be counterproductive because they communicate distrust of those to whom they are directed (Sitkin and Beis, 1994); they are based on the premise that workers desire to evade responsibilities and withhold proper and full performance of obligations (Fox, 1974). Formal control, meant to order and organize employee behaviors, may actually become coercive and diminish informal controls including emotions, values, and beliefs (Adler & Borys, 1996). Rigid bureaucracies work only in situations where known routines and outcomes are highly likely; as organizations, schools are meant to nurture and develop diverse populations of students, making rigid structures untenable (Bryk & Schneider, 2002).

Culture may also act as an inhibitor of trust. By both default and design, social systems self-organize according to cultural codes (Gharajedaghi, 2006). In other words, trust and culture are both guides to and products of behavior (Dietz, Den Dietz & Hartog, 2006). Trust may be more difficult to develop in situations of cultural diversity because people are uncertain about the

cultural norms of others (Kipnis, 1996). Knowledge of one another's culture may be limited and based on stereotypes or partial and misleading images. Stereotypes and bias may cause suspicion towards non-group members and leniency towards group members (Brewer, 1995). "Overconfidence in the collective to which one belongs can lead individuals to defer too readily to other members, and [they] may inhibit expressions of doubt or engage in inappropriately severe self-censorship rather than press their claims as vigorously as they might (Kramer et al., 1996, p. 381).

Distrust reduces interpersonal and organizational efficacy and efficiency as members spend valuable time verifying each other's motivations, participating in self-protective behaviors, and contributing to an atmosphere of anxiety that is counterproductive to collaboration (Lewicki, McAllistar & Bies, 1998). Research shows that managers consistently distrust people whom they view as out for themselves, not team players, or non-supportive; consistently, these manager/employee relationships have been more distant, and the parties tend to meet less frequently than in relationships characterized as trusting (Burt & Knez, 1996). In the absence of trust, "people are increasingly unwilling to take risks, demand greater protections against the possibility of betrayal, and increasingly insist on costly sanctioning mechanisms to defend their interests" (Tyler & Kramer, 1996, p. 4).

Trust decline, a stage of trust development, may occur in a singular incident that eliminates all trust, or may result from a more gradual erosion in response to smaller incidents that accumulate over time (Lewicki & Bunker, 1996). Once established, distrust has a strong tendency to self-perpetuate (Tshcannen-Moran & Hoy, 2000). In fact, once trust has been violated, it may be impossible to regain (Tyler & Kramer, 1996).

## Culture and Trust

Trust and culture are always shaped by context (Wright & Enhert, 2010). As social constructs, trust and culture are dynamic, non-neutral, and include the actors' past, present, and future actions; they do not occur in a vacuum, thus must be contextualized within the specific context observed (Dyer & Chu, 2003). Chao and Moon's (2005) model of a cultural mosaic allows for the multiplicity of contributing perspectives within diverse social organizations. Zaheer and Zaheer (2006) describe studies from outside a culture, where one examines universal, unchanging aspects as etic. A study of trust in this manner would look for universal threads that would consistently appear regardless of cultural, ethnic or socio-economic differences. For example, members of minority groups are reported to have lower levels of trust than those in the majority in regard to generalized trust, is an etic approach (Smith, 2010). Zaheer and Zaheer also describe emic studies as ones where trust may be universal, but internal cultural differences need to be taken into account. As Deietz and colleagues (2006) point out, many specific interpersonal, cultural and organizational influences all inform trust within organizations.

People have a tendency to extend trust more readily to people they perceive as similar to themselves, known as characteristic-based trust (Zucker, 1986). This kind of trust is based on social similarity stemming from norms of obligation and cooperation; similarity may depend on characteristics such as family background, social status, and ethnicity. However, those who have an involuntary membership in a racial or ethnic minority may be able to form bonds of trust with people outside their community by joining organizations or associations with diverse memberships (Paxton, 2007). Shared pastimes as well as racial, cultural, and educational similarities are also linked to positive relationships, particularly between supervisors and subordinates, and in developing more trusting relationships (Tsui & O'Reilly, 1989). These

factors may be attributable to more successful communication and reduction of ambiguity.

Research on heterogeneous groups in organizations points to cultural diversity in an organization as both opportunity and challenge that provide both benefits and negative outcomes. Diversity affects organizational outcomes, including satisfaction, creativity and turnover (Milliken & Martens, 1996). Heterogeneous groups show greater creative ability (Nemeth & Nemeth-Brown, 2003) but may suffer from greater turnover, dissatisfaction and miscommunication (Milliken & Martens). Cultural complexity (Erikson, 2007) can be operationalized through descriptive multidimensional relationships to create nuanced perspectives of majority and minority stakeholders, social and cultural factors, and enforced or chosen integration. International schools, by nature, are generally complex cultural settings with schools often serving students and families from many different nations, linguistic backgrounds, and cultures (Powell & Powell, 2000). Opportunities and challenges based on culture and trust exist in international school settings as described for other organizations. Faculty benefit from working with members from diverse pedagogical backgrounds, providing more diverse teaching styles, creativity and approaches to teaching and learning; conversely, high turnover rates, miscommunication, and in-group/out-group dissatisfaction may also challenge organizational efficacy. Relational trust, or its absence, either increases teacher buy-in, support for reform or extending efforts beyond contractual obligations or, in its absence, creates controversy, inefficiency and conflict (Bryk & Schneider, 2003). Bryk and Schneider also found that voluntary association, or community members and faculty who chose to be a part of the community, was also a factor for increased levels of trust.

## **Measuring Trust**

After World War II, studies of trust began to proliferate, in part, a reaction to Cold War

attitudes of distrust (Tschannen-Moran & Hoy, 2000). Deutsch (1958) ran a series of studies based on trust as a mutual choice through mixed motive games. A mixed motive game rewards cooperation between two players while rewarding those that exploit the other player and penalizing those that are unilaterally cooperative. Similar games, called the prisoner's dilemma, were also utilized to assess levels of trust and mutual cooperation. However, these types of games for research began to come into question, as the motivation for the games could be competitive in nature and not a true assignment to qualities of trust (Tschannen-Moran & Hoy). Rotter (1967) developed paper and pencil assessments to measure interpersonal trust, also stemming from an era where reaction to distrust grew towards the establishment.

Recently, three broad areas have become the focus of the study and measurement of trust: intra-organizational studies (Tscahnne-Moran, 2000, 2004; Cummings & Bromily, 1996), inter-organizational studies (Mishra, 1999), and organization to client based research (Dietz & Hartog, 2006). This paper will focus on the study and measurement of trust within an organization, international schools specifically.

The Omnibus Trust Scale (OTS) was developed by Hoy and Tschannen-Moran between 1999-2003. The scale was developed to measure generalized trust teachers had toward three groups, clients (students and parents), colleagues, and principals. An early study of trust in schools was performed with 898 teachers from an urban school in district in Midwestern United States; this study found that the five facets tightly co-varied in all the trust relationships tested including faculty trust in parents and students, in colleagues and in principals (Hoy & Tschannen-Moran, 1999). Future studies by Hoy and Tschannen-Moran (2003), that included factor analysis, led to the development of the valid and reliable OTS.

## **School Qualities and Trust**

Other factors may influence organizational trust within schools as well, specifically school size and division. Bryk and Schneider (2003) found that schools that greater relational trust was more likely to develop in smaller schools and with populations of community members that remained more stable. A school's size may influence levels of trust within the entire school organization, particularly among students who may not feel a part of the organization or develop trusting relationships (Barker & Gump, 1964). So too may the division of an organization affect trust levels within a school. Trust between parents of elementary school students and elementary teachers has been found to be greater than that among middle school and high school parents and their corresponding teachers (Adams & Christenson, 2000). However, other studies have found that factors including school size, ethnic and socio-economic diversity, and school division do not limit the ability for principals to build trust among faculty and clients (Adams, Forsyth & Mitchell, 2009).

## **The Context of International School Settings**

The purpose of this brief background is to provide the context within which this study will take place. Within schools, and by extension international schools, trust is a major factor at the individual, team, and organizational levels (Fulmer & Gelfand, 2012). Trust is a necessary condition between principal and teacher to build collective efficacy and an adaptive organization (Tschannen-Moran & Hoy, 1999; Garmston, 2004). Trust between a principal and a teacher occurs at an individual level, between principal and a subgroup of teachers at the team level, and the faculty-principal team at the school or organizational level. Individual, interpersonal, and organizational referents change depending on the focus of study (Fulmer & Gelfand). However, “No construct is level free.” (Klein, Klein, Dansereau, & Hall, 1994, p. 198) meaning that studies

of a social construct like trust, or intercultural competence, cannot take place at a singular level. Many researchers argue the need for studies of trust in context and examining interpersonal and institutional factors that create or inhibit trust simultaneously (Alexopoulos & Buckley, 2013; Mishra & Mishra, 2013).

This study highlights the meanings of trust and described a number of models of intercultural competency. The need to contextualize both constructs has also been described as indispensable to their study. To understand the interplay between trust and intercultural competence, defining the specific context is critical. From an etic perspective, or that which studies culture in relation to an objective external schema (Zaheer & Zaheer, 2006), we can certainly find consistencies or universal traits between different organizational groupings, like U.S. public school, European public schools, corresponding private schools, or international school organizations. It is from the emic perspective, or the study of a specific culture's internal functions and elements (Zaheer & Zaheer), that the cultural, interpersonal, and organizational qualities of trust and intercultural competence specific to a particular environment come to light. Factors specific to each environment make differentiating between school organizational groupings important to focus research.

Cultural competence accepts the premise that we are formed and bound by culture; that we are all, to some degree, different; and all of us need to address our cultural modifiers in each encounter to find understanding (Barna, 1994). With this in mind, there is a natural tension between etic and emic approaches in the study of intercultural competence, especially in the diverse contexts present in international schools. While there exist congruent statements about intercultural competencies in researcher models (Bennett, 1993; Deardorff, 2011; Hammer, 2003;), these same studies point to the need of understanding competencies between one specific

culture and another. This would imply that the study of intercultural competence may reveal etic qualities to the construct that describe universalities, but that to understand intercultural competency, its study requires an emic approach that contextualizes competency.

Data shows that international schools have opened at increasing rates, particularly in nations with rapidly expanding economies, including China, Singapore, Hong Kong, and other South East Asian countries (EARCOS, 2012). International schools are largely private, thus exclusive. Most schools' admissions practices are exclusive. International schools are often contradictory, in that they seek contact with the global society, yet are insular; celebrate diversity, but are often monocultural; based on experiential learning, but strive for global certification; and promote community service action while building competitive advantage (Cambridge & Thompson, 2001).

International schools may look and feel exactly the same as U.S. independent schools. Many of these independent organizations, particularly those linked to embassies, strive to recreate the American school experience. The presence of international schools is so institutionalized as to warrant an Office of Overseas Schools (O.S.S.) nested within the U.S. Department of State. According to the O.S.S. home page: "The mission of the Office of Overseas Schools is to promote quality educational opportunities at the elementary and secondary level for dependents of American citizens carrying out our programs and interests of the U.S. Government abroad." (O.S.S., 2012). However, international schools operate wholly outside the oversight of any local, regional, or national school system.

International schools are often exempt from many national laws that seek to bring balance and access to educational, economic, and political resources. There is no external accountability or laws, like the IDEA, that govern international schools, other than accreditation

agencies that make recommendations towards school development. Accountability is left to the ethics of those who write and enact school policies. The exclusivity that results from admissions screening and high tuition costs contributes to insulating the international school environment from self-reflexive monitoring and action. Administrators and faculty answer only to the local governing board or school owner. The only link to national education systems is through accrediting bodies from national organizations that verify the academic rigor of an international school's program as sufficient for students to pass from them into national K-12 or university programs.

Multi-national corporations are increasingly becoming more diverse culturally and ethnically as specialists are hired from around the globe. Accredited international schools provide families with viable educational opportunities while overseas and are an important commodity to support this global trend (Cambridge and Thompson, 2004). International schools, by nature, are generally complex cultural settings, with schools often serving students and families from many different nations, linguistic backgrounds, and cultures (Powell & Powell, 2000).

### **Need for the Study**

There are several critical reasons to study the hypothetical effect of a principal's intercultural competency on trust relationships within international school settings. There is a growing body of work specific to international schools, and this research contributes directly to existing and on-going investigations. Specifically, while there is a plethora of research on trust and in intercultural competency, a combined search for intercultural competency and trust yielded not a single piece of research on EBSCO, ERIC, and Google Scholar. Several protocols exist to assess organizational trust as well as to assess individual cultural competency. No

studies found have combined the use from a cross study of how these two complex social constructs interact or inform each other.

The intricacies of trust require context be a part of research and a need for longitudinal contextualized research (Mishra & Mishra, 2012). Zaheer and Zaheer (2006) discuss contextualizing trust through culture in regard to business and other international organizations. This study seeks to contextualize how international school principals' intercultural competence hypothetically affects trust relationships within the international school settings. The study provides salient information directly related to international schools for international school leaders to utilize.

With changing community populations, potentially higher turnover rates of faculty and community members, and demands for 21<sup>st</sup> Century learning the capacity to address issues with known technical responses in international school settings becomes less tenable (Sutherland, Price, Harris & Strong, 2012). In order for international schools to remain adaptive and flexible, principals need to develop high trust organizations (Brooks & Normore, 2010). School leaders who develop high levels of trust with staff create higher levels of adaptability and professionalism among staff (Hoy, Gage, & Tartar, 2006). Two motivations to trust that are closely bound to culture include identification with a group and internalized moral values that determine right and wrong (Kramer & Tyler, 1996). Kinship is the first collaborative network, before common membership in a professional community, in the development of trust (Powell, 1996). "Principals need to understand the cultural context within which they serve and expected actions and structures of power and leadership within that culture or risk diminishing relational trust from teachers," (Bryk & Schneider, 2004, p. 650) This requires both principal and teachers to participate in code switching, and consciously deviating from one's regular cultural response

to engage in behavior culturally appropriate to the organization (Dietz, Gillespie & Chao, 2012).

There is a need to discover how a principal's intercultural competence may hypothetically be a significant factor in building trust within international school communities. Principals find themselves in new, more-highly-diverse school settings with little or no training or background to understand their new environment. Host country educators are also joining the ranks of international schools in growing numbers creating an even more diverse polyglot of educators within a given international school. The need to develop interculturally competent school leaders who can make informed and appropriate decisions has never been more urgent (Fine & McNamara, 2011).

### **Purpose of the Study**

The purpose of this study is to measure the relationship of school principal's intercultural competency and the level of trust among teachers and community members in international school settings. The study seeks to build upon the extensive, but separate, bodies of research on trust and intercultural competence relationship exists between these two significant interpersonal and organizational constructs, and if so what is the nature of the relationship. The review of literature will focus on the hypothetical influence of a school leader's cultural competency in international school settings on the hierarchical relationships of trust between principals and teachers. The correlation between these two constructs is also the focus of direct research on trust and intercultural competence through an overarching question: What is the relationship between a principal's intercultural competence and the degree of trust perceived by teachers in international school settings in the East Asia Regional Council of Schools (EARCOS) region?

### **Research Questions**

This study is guided by the following research questions

1. What is the current state of principals' intercultural competence in the EARCOS region?
2. To what extent does:
  - a. gender correlate to a principal's intercultural competence in the EARCOS region?
  - b. education correlate to a principal's intercultural competence in the EARCOS region?
  - c. educational experience correlate to a principal's intercultural competence in the EARCOS region?
  - d. the number of long-term intercultural experiences correlate to a principal's intercultural competence in the EARCOS region?
  - e. time spent in other cultures correlate to a principal's intercultural competence in the EARCOS region?
  - f. a match between a principal's mother tongue and the main language of the school correlate to a principal's intercultural competence in the EARCOS region?
  - g. the number of languages a principal is fluent in correlate to a principal's intercultural competence in the EARCOS region?
  - h. a match between a principal's ethnicity and the main ethnicity of the school correlate to a principal's intercultural competence in the EARCOS region?
3. What is the current state of teachers' trust in principals in the EARCOS region?
4. To what extent does
  - a. school size correlate to teacher trust in their principals in the EARCOS region?
  - b. the organizational nature of a school (proprietary or non-profit) correlate to teacher trust in their principals in the EARCOS region?

- c. the religious or secular nature of the school correlate to teacher trust in their principals in the EARCos region?
  - d. the school division (elementary, middle, high, K-12) correlate to teacher trust in their principals in the EARCos region?
  - e. host country educational training correlate to teacher trust in their principals in the EARCos region?
5. What is the relationship between a principal's intercultural competence and the degree of trust perceived by teachers in international school settings in the EARCos region over and above the control predictors addressed in questions 2 and 4?

## **Limitations**

This study's limitations include the types of schools studied, geography of schools, school community members included in the study, the methodology of the study, and generalizations, rather than specificity, of ethnicity and language. The self-reporting nature of both inventories and corresponding variable factors for both the GPI and the CTTS also provide both opportunities and limitations to this study.

**School type:** Only independent, international schools in the EARCos region will be included in this study. The schools may comply with host country laws and regulations but predominantly offer international curricula independent of host country requirements. The study will be limited to schools in the Asia region, and more specifically, The South East Asia EARCos region. Schools may be not-for-profit or proprietary in nature as listed in the EARCos member guide (2015); however, schools listed as non-profit may technically fulfill host country requirements for calling identifying as such, but may in fact be proprietary in nature. Some schools in the study report as non-profit as they fit the host country requirements for doing

so, but in fact create profit that benefits individual or parent company interests. These qualifications are indiscernible within the scope of this study.

Schools may also identify as religious or secular. However, for this study, the nature, degree or denomination of the school will not be investigated. Schools may have religious affiliations as they receive grants or funds from religious organizations but do not openly practice a religion on campus. Others may hold mandatory services or include religious affiliation as an aspect of their admissions or hiring practices. These aspects of schools participating in this study will not be considered. Further studies could more clearly parse the distinctions regarding school organization or religious affiliation.

Lastly, and perhaps most importantly, international schools are loosely defined at best (Keller, 2014), has been referred to in contrasting usages in educational researcher, as a whole, with each individual word “international” and “education” under dispute (Cambridge & Thompson, 2004), and thusly producing multiple research models with which to study this context (Dolby & Rahman, 2008). This study will utilize the requirements for joining EARCOS as the definition of international schools as this is the region the study was made. However, it is to be noted that this is not necessarily aligned with other research models, like comparative analysis, internationalization of education, and international teaching and training to name a few.

**Response rates:** Response rate and type may also be a limitation of this study. At least one principal from a school must respond along with a significant portion, described in chapter 2, of his or her direct staff will be included in the study; this would be minimum of 5 teachers from schools with more than 20 teachers or 25% of faculty from schools with less than 20 teachers. Principals from elementary, middle, and high schools within the same international school responses may be included, but only aligned with responses from educators within their direct

school. This study will be limited to perceived trust by teachers of their principals and exclude parents and students from the research.

Additionally, the teacher:principal ratio that occurs in this study may or may not reflect the actual teacher:principal ratio in the EARCOs region. While a disproportionate ratio may raise some concern over external validity, the purpose of this study is to link a closed set of one principal's self-reported intercultural competency to his or her faculty's self-reported perceptions of trust in the principal. Aggregated data sets will provide more generalized findings for the EAROCS region

**Data collection:** The survey will be given electronically over distance; it will be impossible to ascertain if a response is that of an individual's perceptions of trust and intercultural competence or if respondents completed the survey with one or more people. Individual responses may differ from actual perceptions, as there are reasons for respondents to enter answers other than one's perceptions. These may include personal issues with a principal, personal trust issues from life experiences, or issues beyond the scope of this research that affect a respondent's answers, like a death in the family.

Data from the EARCOs Membership Guide (EARCOs, 2015) does not always list a full breakdown for the number of faculty members in each of member school's divisions. While some schools list current faculty numbers for elementary, middle, and high schools that comprise their campus, not all schools do so. Additionally, some schools are made up of only two divisions, elementary and secondary, or in one case, one division, a secondary school. Approximations for the participating schools will be made in chapter three when reviewing data sets from participating schools as accurately as possible. However, the ability to empirically

state that the sample population of divisions represents the EARCOS region divisional populations will not be possible.

While actual school population numbers, rather than categorical sizes, will be used in this study, other factors that are not discoverable in this study may actually influence responses from both principal GPI responses and teacher CTTS responses. Schools that may be growing exponentially may significantly influence a principal's sense of competency as he or she grapples with new faculty members from possibly more diverse ethnicities or language bases. Similarly, schools that are shrinking from historical norms may create psychological influences on faculty members in regard to their levels of generalized trust in their principals that will not be measurable in this study.

**Study design:** Finally, this study will look at generalized trust at each school level and the correlation to that building principal's degree of intercultural competence. This would imply that each building could be studied from an emic approach, looking at the specific nuances endemic to each school. This may be taken up in future studies, but will not be a part of this study. Instead, aggregate data will be aligned with data by school division, schools of like size, organizational structure (non-profit or proprietary), religious affiliation, and in/out host country teacher certification.

As the design of this study will provide only a "snapshot" of anonymous responses, the findings of the study cannot be used for a longitudinal study and will not contribute to the continua models of intercultural competency. (Bennett, 2004; Deardorff, 2006; Spitzberg and Chagnon, 2009). No follow up will be made to discover if principals move from more ethnocentric responses to ethnorelativist stances. A mixed methodology study that begins with a quantitative baseline, informed by ongoing qualitative data, and concludes with a final set of

quantitative data to assess individual growth of intercultural competency would be worthwhile to consider in the future.

### **Definition of Terms**

*Culture*- A social construct that operates both as a guide and an outcome of human interactions and an organizer of in-group and out-group behaviors.

*EARCOS* – The East Asian Regional Council of Overseas Schools is comprised of 146 international schools members, 3 affiliate members, and 184 associate institution members (publishers, company and university) in the East Asian region. Of the schools, there are currently 14,180 teachers, 327 principals (all divisions) and 1,430 “other” educators (Krajczar, 2015). There are currently EARCOS is supported by the U.S. Department of State Office of Overseas Schools, whose regional director sits on the EARCOS board of directors. EARCOS creates a network of independent international schools to share resources in the form of funding for professional development weekend workshops, annual teacher and administrator conferences, and other support programs including those that involve students.

*Ethnocentric Orientations*- The end of the spectrum on the Developmental Model on Intercultural Sensitivity describing a person who has lower intercultural competence and consisting of the levels denial, defense, minimization and reversal.

*Ethnorelativist Orientation*-The end of the spectrum on the Developmental Model on Intercultural Sensitivity describing a person who has higher intercultural competence and consisting of the levels acceptance, adaption and integration

*Etic*- an approach to the study of a particular language or culture that is generalized, objective in perspective and thus, seeks universalities.

*Emic*- an approach to the study of a particular language or culture that looks at the internal mechanisms and functions rather than relating to external schema.

*Intercultural Competency*- the ability to purposefully act in culturally appropriate ways

*Intercultural Sensitivity*- the degree of awareness a person has of cultural differences beyond one's own culture.

*International School*- schools that operate western curricula and are accredited by western accrediting bodies. International schools may provide services to host country nationals, but this is often limited by host country governments. International schools may be elementary schools (K-5), K-8, or K-12 schools. They may have an elementary, middle, and high school. For the purposes of this study, teachers and principal respondents will self-identify with the school division to which they belong.

*Trust*- A social construct that operates in connection with other social constructs like culture, reliant on vulnerability and risk, and comprised of the facets: benevolence, honesty, openness, reliability, and competence.

## **Chapter 2**

This study proposed to identify the current levels of principal intercultural competency (IC) and teacher trust in principals in the East Asian Region Council of Schools (EARCOS) region. After a critical review of the literature on intercultural competency and trust, the study was designed to measure intercultural competency using the Global Perspective Inventory (GPI) and trust using the Comprehensive Teacher Trust Survey (CTTS) in international school settings, specifically within the EARCOS region. Personal experiences and qualities that may contribute to a principal's intercultural competency were studied against the collected IC data to determine any links that may have contributed to a principal's intercultural competency responses.

The main focus of the study correlated principal intercultural competency and generalized teacher trust in principals at the school level. The study sought to discover how IC may influence the climate of trust within a school. Additionally, school setting information also helped qualify how the correlation between intercultural competency and trust may be affected by the type of schools within which people serve in the EARCOS region.

### **Conceptual Model**

A thorough review of the literature and connecting ideas from significant numbers of research on intercultural competency and trust framed the development of the conceptual model of the study. The conceptual model of this study is anchored to four distinct components: that the study is quasi-experimental in nature and seeks to find a correlation between two distinct social constructs for further investigation; the distinct nature of intercultural competency and trust are each described as having dynamic subscales; the subscales of IC and trust are greatly influenced by individuals' perceptions, assumptions, and beliefs; and that the nature of the instrumentation relies on self-reporting, perceptions, assumptions, and beliefs of respondents. In these aspects,

the two chosen models for intercultural competency and trust, and their respective inventories align quite well.

**Quasi-Experimental:** While it might seem obvious that the study is quasi-experimental in nature, it is important to note that the purpose, the data analysis, and findings are based on a hypothetical model on the connection between a principal's intercultural competency and the develop of trust among his or her faculty members. Any findings will not be causal, but may indicate direction for future investigations. Correlations within each construct to variable factors, correlations between intercultural competency and trust, and how variable factors may also influence these correlations between intercultural competency and trust formed the basis for the research design.

**Models of Intercultural Competency and Trust:** The model for intercultural competency used for this study, developed by Brascamp, Brascamp, and Engberg (2014), and the model for trust, developed by Tschannen-Moran and Hoy (2000) and further refined by Tschannen-Moran (2012) both rely on cognitive skills, interpersonal skills, and intrapersonal awareness. Connecting these links between each respective model is critical for understanding the design of the study, the choice of instrumentation, and how this connects to perception, assumptions, and beliefs that drive social organizations.

The GPI is based on three key questions: How do I know [cognitive]? Who am I [intrapersonal]? and How do I relate to others [interpersonal]? (Brascamp, Brascamp & Engberg, 2014). At various times and to various people, each of these key domains to the GPI take a greater role in the individual's interactions with other cultures and in his or her intercultural competency development. As a dynamic construct, and depending on with whom a person interacts, their relationship to each other, and the nature of their interaction, each of these three

domains work in varying degrees based on need and situation. For instance, is the person the sole representative of his or her culture among a completely different culture? Is there a significant minority of same-culture peers that an individual may rely upon for both grounding and supporting in reaching out to a new culture? Are their hierarchical differences between a person in a new culture, for instance being the expatriate supervisor to locally hired staff in a new cultural setting? All of these factors hypothetically influence the interaction of the three key domains of the GPI and may hypothetically serve to inhibit or enhance an individual's intercultural competency.

Similarly with trust, five tightly correlated facets (benevolence, honesty, openness, reliability, and competence) come to the fore or recede to other facets based on the individuals involved in the trust relationship, the situation, and relationship to each other. For instance, teachers require benevolence and openness from principals to perform their roles in a school most effectively, relying on a principal's benevolence and openness to experiment with new pedagogical strategies and grow as an educator. Conversely, principals require competence and reliability from teachers to ensure students are receiving consistently rigorous learning experiences. The other facets are important to each of the individuals, but may take lesser or greater roles.

**Perception, Assumptions, and Beliefs:** Each model requires cognitive skills on the part of the individual to distinguish opportunities and threats for both interculturally competent trusting responses. Principal and teacher perceptions over the short-term and long term will influence long-standing assumptions and beliefs. For instance, new leaders coming to the school may have to overcome negative assumptions and beliefs developed over time from teachers who have worked in schools that have had leaders with whom they had little trust for, even if the new

leader may be acting in a highly trusting manner. Conversely, teachers in a high trust culture may not perceive new leaders who may have not have their best interests at heart because the assumptions and beliefs of the school culture influence their perceptions of the new leaders words and actions.

A leader from an outside culture may come to a new organization and be perceived to be “superior” or “inferior” based on his or her cultural background. Significant leeway or suspicion may be awarded to this outside individual based on host cultures perceptions, assumptions and beliefs of the outsider’s culture. Self and other perceptions create the assumptions and beliefs that guide organizations and mediate levels of intercultural competency and trust among and between individuals and groups within a school. In this regard, instrumentation that measures the perceptions of participants towards the nature of trust teachers have for principals, and of an individual’s perceptions of her or his own intercultural competency inherently account for these perceptual factors.

**Nature of the Instrumentation:** The basis of the Global Perspective Inventory (GPI) is that it is self-reporting and based on individuals’ self-perception of their intercultural competency. Within the Omnibus Trust Scale (OTS) lies the Comprehensive Teacher Trust Scales (CTTS) that rely on teachers’ self-reporting of their perceptions of trust between other teachers at their school, perceptions of trust other teachers have of their principal, and perceptions of trust other teachers’ have for their school’s clients (parents and students). The 8-question subscale specific to teacher trust in principals will be used for this study, as it describes the singular perceptions of individual teachers regarding trust towards their principal. In this regard, there is consistency in the approach and nature of data each survey collects as each scale

utilizes the respondent's perceptions and beliefs about self and others within his or her school as the basis for collection.

## Purpose

The purpose of this study was to measure the relationship of school principal's intercultural competency and the level of trust among teachers and community members in international school settings within the EARCOS region. Through a detailed review of literature on both intercultural competency (Bennett, 1993; Brasscamp, Brasscamp & Engberg, 2004; Deardorff, 2009; Hammer, Bennett & Wisemen, 2003; Hunter, White & Godbey, 2006) and trust (Mishra, 1999; Tschanen-Moran, 2002, 2012; Tschanen-Moran & Hoy, 1999, 2003), clear theoretical and statistical evidence for each model of intercultural competence and trust respectively has been presented. Data have been presented that is consistent with the hypothesis that intercultural competency in leaders positively impacts organizations within which they serve (Irving, 2009; Tang, Yin & Nelson, 2010). Significant research supports the theoretical evidence that trust is a key factor in principals building successful schools (Mishra, 1999; Sutherland & Yoshida, 2015; Tschanen-Moran, 2012; Tschanen-Moran & Hoy, 2000).

The study sought to build upon the extensive, but separate, bodies of research on trust and intercultural competence relationship exists between these two significant interpersonal and organizational constructs, and if so what is the nature of the relationship. Additionally, little to no research in the EARCOS region exists related to either trust or interculturally competent leaders, although a recent dissertation study was performed using the Intercultural Developmental Inventory in the EARCOS region (Jubert, 2016). A thorough review of the literature turned up no studies that link these two important and distinct constructs. The purpose of this study is to provide a seminal investigation into the relationship of a principal's

intercultural competence and the levels of trust developed among his or her faculty within the EARCOS region.

## **Research Questions**

This study is guided by the following research questions

1. What is the current state of principals' intercultural competence in the EARCOS region?
2. To what extent does:
  - a. gender correlate to a principal's intercultural competence in the EARCOS region?
  - b. education correlate to a principal's intercultural competence in the EARCOS region?
  - c. educational experience correlate to a principal's intercultural competence in the EARCOS region?
  - d. the number of long-term intercultural experiences correlate to a principal's intercultural competence in the EARCOS region?
  - e. time spent in other cultures correlate to a principal's intercultural competence in the EARCOS region?
  - f. a match between a principal's mother tongue and the main language of the school correlate to a principal's intercultural competence in the EARCOS region?
  - g. the number of languages a principal is fluent in correlate to a principal's intercultural competence in the EARCOS region?
  - h. a match between a principal's ethnicity and the main ethnicity of the school correlate to a principal's intercultural competence in the EARCOS region?
3. What is the current state of teachers' trust in principals in the EARCOS region?
4. To what extent does

- a. school size correlate to teacher trust in their principals in the EARCOS region?
  - b. the organizational nature of a school (proprietary or non-profit) correlate to teacher trust in their principals in the EARCOS region?
  - c. the religious or secular nature of the school correlate to teacher trust in their principals in the EARCOS region?
  - d. the school division (elementary, middle, high, K-12) correlate to teacher trust in their principals in the EARCOS region?
  - e. host country educational training correlate to teacher trust in their principals in the EARCOS region?
5. What is the relationship between a principal's intercultural competence and the degree of trust perceived by teachers in international school settings in the EARCOS region over and above the control predictors addressed in questions 2 and 4?

## **Population**

The population for this study consisted of all principals and teachers who work in schools with full EARCOS membership. I invited every elementary, middle and high school principal from the EARCOS region to participate. With 146 member schools, there are 327 principals and 15,730 teachers combined that were asked to participate in the study (Krajczar, 2015).

International schools are independent entities that operate much like public school districts in the United States. An international school may be comprised of a single elementary school and secondary school, or contain several elementary, middle and high schools, each with its own principal and supervised by a single superintendent and spread geographically over several campuses.

For the purposes of this study, the school division level (elementary, middle or high school) was the school level when the unit of analysis towards research questions calls for school level unit of analysis. One international school may have contributed one or more complete data sets of one school principal with corresponding teachers. For instance, an international school with one elementary, middle, and high school, each with a corresponding principal, may have contributed three distinct, school-level data sets towards this study.

Individual members, or individual educators who pay to belong to EARCOS, were not included, as they hold no intra-school relationship to study. Elementary schools were defined as starting in either pre-school or kindergarten and ending with grade 5 or grade 6; middle schools were defined as grades 6-8, or in the case that grade 6 is within the elementary program, grades 7-8 constituted a middle school; high school was defined as grades 9-12. Schools with only one school, like elementary, middle, or high school, or schools with two schools, like K-8 or combined middle and high schools, were included with K-12 schools. However, teacher and principal respondents self-identified to which school they belong in the survey.

I chose the EARCOS region, as it is the region within which I have served as a teacher and school principal for almost a decade. The EARCOS organization actively promotes and supports regional studies from its members and shares research openly to support school growth and student learning. I will disseminate the findings from my study with full support and promotion of EARCOS.

The unit of analysis for this study was the school level for all questions. For research questions 1 and 2, the individual principal responses were equated to a school level analysis, as each building's principal represents the school division response from administration. For question 3, the unit of analysis was the school division level (elementary, middle, or high school),

as the Comprehensive Teacher Trust Survey (CTTS) registers generalized responses of how teachers feel towards the levels of trust in their principal(s). Teachers responded to their sense of trust with their school principal when data was aggregated from all respondents. The unit of analysis for Question 4 and 5 was also the school.

The intercultural competency of each principal, linked with his or her teacher group's level of trust, was the focus of this study. Principal scores from The Global Perspectives Inventory (GPI) were linked with the corresponding teacher responses to the CTTS. Corresponding teachers for each principal were those who they directly supervise.

An analysis of the make up of each EARCOS school recruited to participate in this survey were confirmed utilizing the 2015-2016 EARCOS Member Directory listing demographic information of each of its schools. I hoped for a 25% response rate from the official sample, or 83 principals from the EARCOS region and 25% of his or her corresponding teachers. A 25% response rate from principals with adequate teacher respondents from any given school building (elementary, middle or high) from any individual school would have yielded a .3 critical effect size and considered a strong enough response to use. For schools with fewer than 20 teachers, a 25% response rate from teachers was required to use the data sets.

## **Instrumentation**

For principals, the instrument was the Global Perspectives Inventory (GPI) to measure a principal's intercultural competency. The GPI surveys respondents on a Likert-like scale across three sub-categories: intrapersonal skills (self), interpersonal skills (towards others), and cognitive skills. Each sub-category consists of two components. For teachers, the instrument was the Comprehensive Teacher Trust Scale (CTTS) that measures teacher trust in their supervisor, colleagues, and clients (parents and students). Only the subscale measuring teacher

trust in principals (8 questions) was used for this survey. Each survey and their subscales have sufficient psychometric evidence for valid and reliable use within school settings.

**Global Perspective Inventory.** The GPI (Appendix A) measures responses within three categories: intrapersonal awareness, interpersonal awareness, and cognitive skills. Each category contains two sub components. Intrapersonal awareness is divided into intrapersonal identity (6 questions) and intrapersonal affect (5 questions); interpersonal cognitive skills are sub-grouped social responsibility (5 questions) and social interaction (4 questions); cognitive skills are divided into the components, cognitive knowing (7 questions) and cognitive knowledge (5 questions).

The GPI scale ranges from Strongly Agree, Somewhat Agree, neither Agree nor Disagree, Somewhat Disagree, Disagree and Strongly Disagree. The researchers used the recommendations of the American Psychological Association's 1999 National Council for Measurement in Education Guidelines to define uses and validity (Brasscamp, Brasscamp & Engberg, 2012). The 9<sup>th</sup> iteration of the GPI contains 32 items and used a confirmatory factor analysis to test the validity of each of the six subgroups of the scale. Table 1 details the Cronbach alpha coefficients for each subscale of the GPI. The criterion for an acceptable Cronbach alpha is .70 or higher.

Table 1. Cronbach alpha coefficient of the Global Perspective Inventory

Subscale	Cronbach alpha coefficient
Cognitive Knowing	alpha=0.657
Cognitive Knowledge	alpha=0.773
Intrapersonal Identity	alpha=0.740
Intrapersonal Affect	alpha=0.734
Interpersonal Social Responsibility	alpha=0.732
Interpersonal Social Interaction	alpha=0.700

Full permission to use the GPI for this study was granted (Appendix B). Two questions name respondents as students, as the GPI was originally designed for college students participating in semesters abroad. These items are: "I frequently interact with *students* with a race/ethnic group different from my own," and "I frequently interact with *students* from a different country from my own." (Brasscamp, Brasscamp & Engberg, 2012) The term "students" was recently substituted by the GPI researchers with the term "people." I used this version of the instrument so the members of my sample, international school principals, may respond without confusion. The researchers associated with the GPI acknowledged this change (Appendix C)

Additionally, The Cronbach's alpha (.657) for cognitive knowing is lower than the standard criterion of .70. Upon examination of the data in a post hoc analysis, the strength of the alphas for cognitive knowing was not strong enough; a representative question from the subscale (Item 16-I take into account different perspectives before drawing conclusions about the world around me) was used as it reached the acceptable Cronbach's alpha level of .70 or above. This approach was acceptable to the GPI researchers (Appendix C).

For the scale Interpersonal Identity, one of the items had a relatively low factor loading = .368. "I am developing a meaningful philosophy of life," (Brasscamp, Brasscamp & Engberg, 2012). The standard factor-loading criterion for inclusion on a scale is .40. The researchers associated with the GPI have acknowledged these potential inclusion issues and were accepting of their removal from the inventory for the purposes of this study should the inventory yield factor loading criteria < .40 (Appendix C).

**The Comprehensive Teacher Trust Scale: Teacher Trust in Principals Subscale (CTTS)-** The CTTS (Appendix D) directly measures a teacher's generalized sense of trust in his or her principal, colleagues, parents and students using relationship-based questioning. Full

permission to use the CTTS for this study was granted (Appendix E). There are a total of 26 questions with corresponding Likert-type scales with 1 (strongly disagree) to 6 (strongly agree). The 26 questions ask teachers directly about their perceptions in three subscales: 8 principal questions, 8 teacher colleague questions, and the combined client subscale with 5 parent and 5 student questions. Each group contains at least one negatively worded, reverse score question (i.e., the teachers in this school are suspicious of most of the principal's actions). For this study, only the eight questions regarding the teacher's trust in the principal were used. The questions are valid and reliable on their own (Appendix E; Tschannen-Moran, 2012)

The CTTS has an alpha coefficient of .98 for the subscale of principals and includes questions like, "The principal of this school typically acts with the best interests of teachers in mind," (Tschannen-Moran, 2009). As the principal-teacher relationship is the area of study for this study, an average score for all teachers within a principal's school of this subscale will define the latent variable of trust for the study.

## **Data Gathering**

The data gathering process occurred in seven phases: pilot study, permissions, request for participation, data collection, follow up for participation, closing of participation, and awarding of incentives.

### **Pilot study**

A pilot study was conducted with Shanghai Community International School in Shanghai, China. The purpose of this pilot was to assess that the procedures of the data collection process work effectively, to determine the clarity of the instructions and that the survey allowed for proper data collection, and to determine how long the survey would take for teacher and principal respondents. The head of school, and three building principals, elementary, middle and

high school) all agreed to participate in the pilot study. The head of school was sent the pilot superintendent's request for participation letter (Appendix F). Upon accepting the pilot survey request via email, an email was sent containing the principal and teacher pilot survey request, instructions, and unique Qualtrics URL to the survey that identified respondents to each school. The school head distributed this email to principals and faculty (Appendix G) who then read the email, including the consent by participation form, and clicked the unique URL link to begin the survey.

The intent of the pilot and the study was included in the invitation email, and included the purpose for conducting the study in this limited subgroup of EARCOS teachers and principals. The email noted that the survey will remain anonymous. The results of this pilot were included in the larger general study disseminated to the entire EARCOS region the general feedback this pilot group provided did not alter the content of the full survey. The time frame for responding to the pilot was also included in the invitation email.

Teachers and principals who participated in the pilot study were also provided a follow up questionnaire (Appendix H) to assess any areas of concern with taking the survey. The follow up survey asked if the language was clear in the demographic, GPI, and CCTS components; the clarity of the described purpose of the survey; the length of time it took to take the survey; the clarity of the instructions to the survey; and general comments the respondents wished to contribute. Comment boxes were provided to collect specific feedback respondents wished to share. The follow up questionnaire data, along with the pilot survey data, were reviewed and minor changes were made prior to the beginning of the full survey data collection process.

## **Permissions**

The permissions phase had two main components, permission from EARCOS to directly support this study and to access their database listing all school superintendent contact emails, and to all superintendents within the EARCOS region to encourage their principals and faculty to participate in the study. Through an emailed letter (Appendix I) permissions were granted by Dr. Richard Krajczar, the executive director of EARCOS, and a request to participate letter was sent to every school superintendent, that included the principal/faculty request to participate and the electronic survey link for this study.

## **Request for participation**

With Dr. Krajczar's and EARCOS' support and access to an electronic email listserve, each superintendent/director/school head was emailed from my Lehigh account [tjm304@lehigh.edu](mailto:tjm304@lehigh.edu). The email to the 146 EARCOS full-member schools superintendents included three attachments: The request for participation letter (Appendix J) as the body of the email to superintendents and also included as an attachment; the formal letter of EARCOS support provided by Dr. Krajczar was be attached (Appendix K); the survey participation letter with survey instructions and consent by participation language (Appendix L) was included as well without a URL link. Dr. Krajczar also followed up repeatedly with individual superintendents to support the research.

The superintendent request letter highlighted the importance of the study for their school and for international schools in the region and requested all school heads to encourage participation by each building principal and at least five teachers in each school. K-12 personnel were also encouraged to participate, including: curriculum coordinators, counselors, librarians, or student services faculty who serve in more than one building. Participating superintendents

replied to the request email with her or his affirmation for the school's faculty to participate in the survey.

### **Data collection**

The instructions for the survey, the voluntary consent by completion language, the three sorting questions, the CTTS subscale for teacher trust in principals, the GPI for principals and the accompanying 8-question demographic questions were loaded into a Qualtrics survey through Lehigh's Qualtrics account. Once a superintendent responded indicating a willingness to participate in the survey, he or she was sent an email via my Lehigh account with the actual survey participation letter including instructions and consent by voluntary completion language (Appendix L) with an active and unique Qualtrics link. A superintendent who presided at an international school with multiple campuses and multiple school sub-divisions (2 or more elementary, middle, and high schools), an additional principal and teacher introductory letter and survey instruction letter with a unique URL code would also be attached for distribution. The superintendent was requested to send each separate letter to each separate campus under her or his supervision. When the collection window was open, data were collected online through the Qualtrics survey.

Data were kept anonymous to everyone except me; all presentations of the data were aggregated. The time needed for principals and teachers to complete the survey was assessed during the pilot survey with Shanghai Community International School after IRB approval.

The survey began with the request for participation letter that included the Qualtrics survey link (Appendix L). The directions requested that respondents (both principals and teachers) read the confidentiality statement and the directions for completing the survey. Participants indicated their consent to participate in the study through their completion of the

survey. Any teacher could have declined to participate by simply not completing the survey; several unfinished surveys were not included in the data sets. The survey window of 30 days was listed.

The survey for both teachers and principals began with a three question sorting section (Table 2) asking for the division the respondent is in (elementary, middle, high, secondary, k-8 or K-12), the respondent's role (teacher with listed choices or principal), and whether they received their teaching certification in or out of the school's host country. Principals were then redirected to the 35-question GPI scale and then completed the 8 demographic questions (Appendix A). The demographic questions for principals asked gender, education, years in a culture other than one's own, number of experiences outside of one's culture for 6 months or longer, years as an educator, culture in relation to majority of school's professional educators, language in regard to language of instruction at the school, and languages spoken beyond mother tongue.

Teachers were redirected to the 8-question CTTS teacher trust in principal scale (Appendix D). School size, organizational type (non-profit or proprietary), religious affiliation or secular nature, and building division were used as variable factors aligned with teacher trust for each school. School division was collected in the three-question sorting section that started the survey. However, school size, school organization type, and religious affiliation information was gathered from the EARCOS School Membership Directory (EARCOS, 2015).

Table 2: Respondent Sorting Questions

Question	Response (required questions)
I serve my school in the	Check boxes (one only): Elementary School, Middle School, High School, Secondary School, K-8 School(s), K-12 School(s)

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I received my educator training and certification within the host country I now serve	Yes/No
I am a	Choice Check box: Teacher, counselor, librarian/teaching librarian/media specialist, school psychologist, IB Coordinator, Curriculum Coordinator, Principal

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All questions in the survey were mandatory before a respondent could proceed to the next page of the survey. This may have resulted in diminished responses but ensured that the data sets were complete and identifiable through the use of the sorting key. A progress bar tested in the pilot was removed as it did not calibrate to either teacher or principal sorting and inaccurately showed the respondents how much of the survey they have completed.

As teachers and principals responded to the three initial sorting questions, the unique URL code aligned respondents to the international school within Qualtrics; the choice of division (elementary, middle, and high school) aligned principals to his or her teacher groups. If an international school has more than one elementary, middle or high school, a unique letter with a unique URL code was generated and included in the attachments to the school's superintendent, named by campus. International schools with multiple campuses were be coded as separate schools. Thus, each elementary, middle, or high school within the larger international school was treated as a unique, school-level data set.

Each unique URL code was generated within Qualtrics and coded to each of the EARCOS schools using an Excel spreadsheet; the coding spreadsheet also listed the number of successful data sets based on principal's respondents with required minimum corresponding teacher respondents within each international school. The Excel spreadsheet aligned the unique URL codes, the superintendent, his or her email, and the EARCOS school name, remains with me and stored separately from collected data on a separate electronic storage hard drive. When

needed, the drive was plugged into the computer for usage, the internet connection was terminated so that no external access will be possible. Every attempt continues to be made to keep these data confidential.

### **Follow up for participation**

After one week of data collection, a follow up for participation letter was sent to all superintendents as a reminder about the survey and with a request to ask principals and faculty to participate in the survey. The follow up letter (Appendix M) and the appropriately coded request for participation letter to principals and faculty (Appendix L) was included in this second email to all EARCOS superintendents. Additionally, Dr. Krajczar continued to ask for support through his network

### **Closing of participation**

Five weeks after the follow up letter for survey participation letter was sent, the Qualtrics survey was closed from further data collection. An automatic response was sent to respondents who attempted to take the survey after the closure. They were notified on the link screen that the survey has been closed to additional responses.

### **Awarding of incentives**

The results for the study will be shared in full with the EARCOS community, both electronically and in person at the 2017 EARCOS Administrators Conference. As incentives, each school that completed the minimum required responses will receive an aggregate summary report for the entire EARCOS region for all participating schools will be emailed to the superintendents of participating schools. The report will include the aggregated data of principal intercultural competency within EARCOS, the aggregated teacher trust data within EARCOS, aggregated factors that influenced principal intercultural competency, aggregated factors that

influenced teacher trust in their principal, the correlation between principal intercultural competency and teacher trust in EARCOS, and school factors that influenced the correlation of intercultural competency and teacher trust in the EARCOS region.

Additionally, the first four schools to respond with the survey meeting or exceeding the required number of teachers to principals were awarded a US\$50 Amazon gift card. The educator to receive the card from each school was provided by the superintendent of each of the respective schools. Decisions about which schools were selected made by reviewing response time stamps in Qualtrics.

## **Data Analysis**

The primary goal of this study was to assess predictive power of the hypothetical relationship between a principal's intercultural competency provided from the Global Perspective Inventory (GPI) data in relation to teachers' generalized trust in principals from the Comprehensive Teacher Trust Scale: Teacher Trust in Principal subscale (CTTS) data. To qualify this theoretical relationship, I looked at several predictor variables of intercultural competency and trust as well. I analyzed collected data to assess: the general intercultural competency of principals in the EARCOS region; the hierarchical correlation of predictor variables from the principals' demographic information to the outcome variable, intercultural competency, for individual principals; the general levels of trust teachers have for their principals in the EARCOS region; the correlation that the predictor variables, school qualities, had on teachers' trust for their corresponding principal; the aggregate correlation of a principal's intercultural competency to teacher trust; and the influence of the predictor variables of schools in the EARCOS region (size, organization [non-profit or proprietary], religious affiliation or secular, school division, host-country certification) on the theoretical relationship of predictor

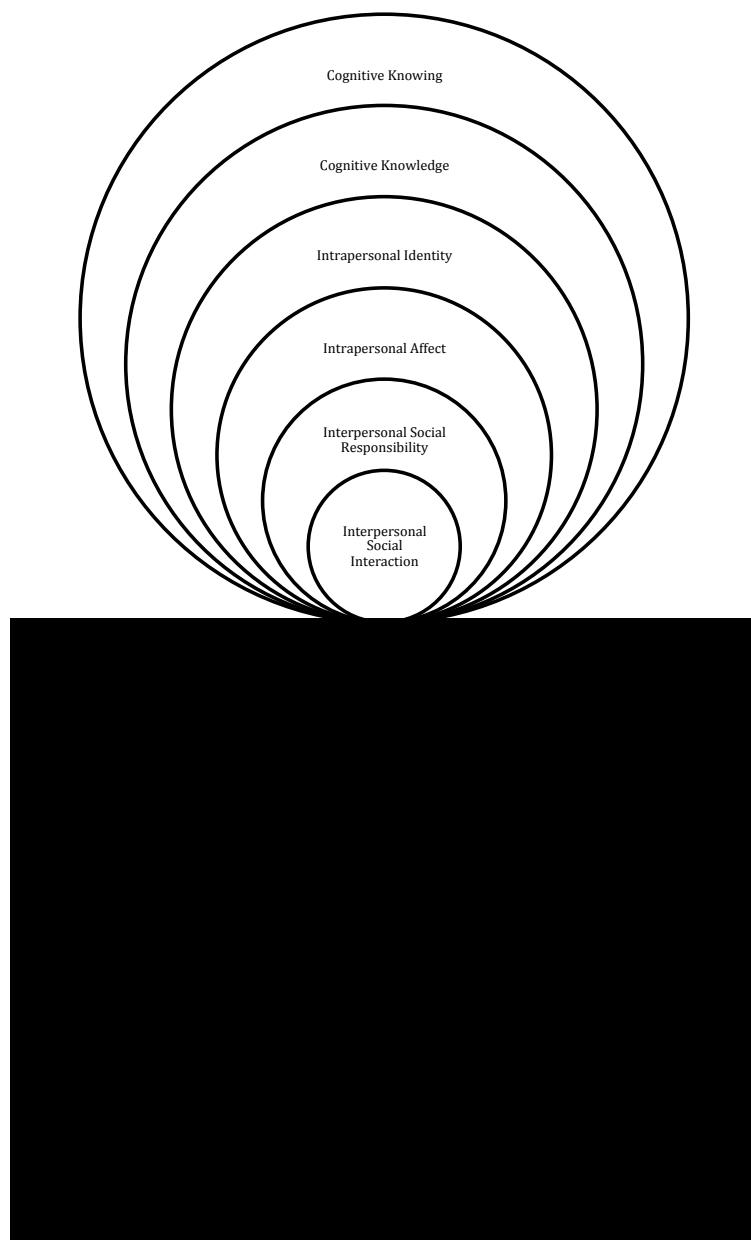
variable of principal intercultural competency to the outcome variable teacher trust. By utilizing these school-related control variables to describe the theoretical relationship between principal intercultural competency and teacher trust, challenges to external validity were addressed as I compared the factor-loading of each data set using multivariate regression analyses for size, division, proprietary or not-for-profit, religious or secular nature, and teacher training locale.

**Intercultural competency of principals in the EARCOS region:** The purpose of this analysis was to answer research question through the quantitative data provided from the principals' GPI survey. I first assessed the current level of intercultural competency in EARCOS principals. I computed the mean, range, and standard deviation of the responses from all principals using the GPI data to assess the aggregate score from all principal respondents. This average included the composite GPI averages and the averages for each of the six subscales: cognitive knowing (CK); cognitive knowledge (CKn); intrapersonal identity (II); intrapersonal affect (IA); interpersonal social responsibility (ISR); and interpersonal social interaction (ISI). This data analysis revealed the power of each question within each subscale to determine which question sets were valid and reliable to use as data for this study.

**The effect of predictor variables of principal demographic data regressed to individual principal intercultural competency data:** The purpose of this aspect of analysis was to answer research question 2 by quantifying the effects of specific predictor variables on each of the six subscales of the GPI measuring principal intercultural competency. As the GPI measures individual levels of intercultural competency across six subscales, each principal's responses to the demographic section and the GPI section required multivariate (MANOVA) regression analyses against the specific demographic question asked (Table 3). These analyses assessed the hierarchical effect of the predictor variables of principal demographic data and a

principal's intercultural competence as determined by the self-reported demographic information and GPI data. Regression analysis for each predictor variable provided from self-reported demographic data was completed against GPI data sets for each of the six subscales from principal respondents (Appendix A). Through a sequential selection process, each predictor variable was assessed as to their power and order of influence on the outcome variable. This served to assess the hypothetical, hierarchical effect of the demographic data on the 6 sub factors of the GPI. As the principal represents the leadership for each school division, the school level was the unit of analysis for this research question.

Figure 5. Hierarchical Regression Model for 6 GPI Subscales with 8 predictor variables



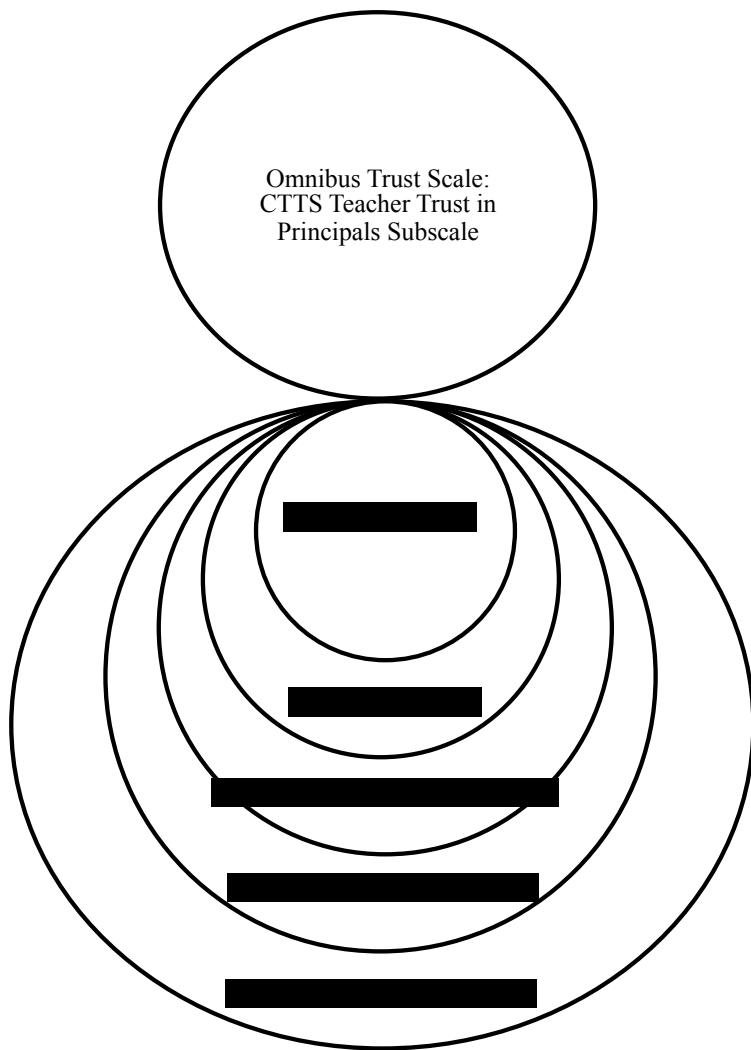
**Teacher trust in principals in the EARCOS region:** The purpose of this section sought to provide analyses to research question 2. I computed mean, range, and standard deviation of teacher trust in principals to discover the teacher respondents' teacher trust in principals subscale

from the CTTS in the EARCOS region. Additionally school information collected from the 2015-2016 EARCOS Member Directory was used to correlate effects that school size, organizational structure (non-profit or proprietary), and religious or secular nature. Building division data and host-country certification data collected in the initial sorting questions were also used to determine any corollary effect that building division and host country status had on generalized teacher trust. These data analyses revealed the power of each question to determine if each question was valid and reliable to use as data for this study.

**The effect of control variables of school qualities on CTTS data on teacher trust in principals:**

The purpose of this section of analysis was to determine the effects of predictor variables on the teacher trust CTTS data. School size, the organizational nature of the school (non-profit or proprietary), and religious affiliation are school-related control variables that were collected from the 2015-2016 EARCOS Members Listing (EARCOS, 2015). School division and host or outside host country educational training were self-reported by teachers in the initial 3-question sorting questions at the beginning of the survey. Each predictor variable was regressed to the CTTS data using a categorical ANOVA regression. The categorical predictor variables were sequentially applied to the CTTS data determine each variable's strength and order of influence on the outcome variable trust. As the CTTS is an omnibus scale, the school level is the unit of analysis.

Figure 6. Hierarchical Regression Model for The Omnibus Trust Scale and Predictor Variables



**School level principal GPI responses and teacher CTTS responses:**

Research question 5 addressed the theoretical relationship between principal intercultural competency and teacher trust at the school level within EARCos region. Teacher responses to the CTTS were aligned by elementary, middle and high school within each participating school and aggregated within each division. The complete data set for the teacher CTTS included the CTTS subscale for teacher trust in principals (8 items), aligned by teacher and building principal

responses to the three initial sorting questions related to division and occupation. It also included the five predictor variables of school qualities and teacher training provided by the sorting question and the 2015-2016 EARCOS Members List Directory (EARCOS, 2015). I computed a mean, range and standard deviation of the CTTS score for all teachers in a given school division. A series of sequential ANOVAs were performed to test the strength and order of the five predictor variables for divisional teacher trust data from each school's division (elementary, middle or high school).

The principals' data for this level of analysis included the 32 questions of the GPI and the principal demographic information. A hierarchical linear regression was performed using the individual principal's GPI data and her or his demographic information. A series of sequential MANOVAs were performed to test the strength and order of the eight predictor variables for each divisional principal GPI data from each participating school's division (elementary, middle or high school) at a school. This sequential regression determined the strength and order of the contributing predictor variables on the GPI data. As each divisional principal represents the administration for each school, the school is the unit of analysis for this analysis.

Each school level CTTS score was regressed on the corresponding principal's GPI response. A multiple regression for each of the 6 sub factors (CK, CKn, II, IA, ISR, ISI) measured in the GPI was computed against the mean of the CTTS from teachers within each principal's school. This regression included the predictor variables on each principal's GPI data and the predictor variables regressed to the aggregate CTTS data for each division within a school. The school was the unit of analysis for this part of the study.

**Measuring the correlation of principal intercultural competency and teacher trust in the EARCOS region and accounting for the effects of control variables on the correlation:** The second part of analyses related to research question 5 sought to answer the causal theory that self-reported principal intercultural competence leads to higher levels of perceived trust among a principal's faculty in the EARCOS region. The analyses sought the power of this correlation from aggregated GPI and CTTS survey data *and* the degree to which categorical and continuous predictor variables for principal responses and teacher responses can be isolated, sequenced, and described in terms of their power and effect on this correlation.

The 5<sup>th</sup> and final research question hypothesized the link between a principal's intercultural competency and teacher trust. To understand this correlation, a mean of means from the six subsections of principals' GPI data and a mean of means from the teacher CTTS data was computed. Through a sequential selection process, each control variable was assessed as to their power and order of influence on the correlation between principal intercultural competency and teacher trust (Figure 7). This served to assess the hypothetical, hierarchical effect of the predictor variables on the correlation between a principal's intercultural competency and teacher trust. The unit of analysis for this section of the study is the EARCOS region.

Figure 7. Hierarchical Regression Model for GPI and CTTS with Predictor Variables



**Validity and normality:** In order for a school level teacher aggregate/principal pairing to be considered, a minimum of 5 teachers was needed to analyze with the corresponding principal's response. For schools with fewer than 20 teachers a 25% response rate from all teachers was required to consider the data with the associated principal. For instance, in a school with 16 teachers, a minimum of four teachers was required to consider the data set.

A regression analysis was performed, regressing the mean CTTS trust scores for each school on the principal's GPI responses for each school. 43 principals with sufficient

corresponding faculty respondents exceeded the  $n= 30$  or  $n>30$  for the test to be robust to violations of normality assumption. Regression analysis for each factor from demographic analysis was conducted to determine whether the demographic variables correlated with the GPI scores for principals. I wanted to learn if higher scores on a principal's GPI subscales are associated with higher or lower levels of trust from his or her faculty.

As all respondents came from accredited international schools in the same region, there was a stronger level of external validity due to the degree of demographic similarity in the population from each school. External validity was also strengthened in that the responding sample ( $n$ ) did so by choice, making the responding sample different from the official sample (all school sub divisions within the 146 EARCOS schools). Additionally, any discrepancies of proximal similarity between respondents in different schools within the EARCOS region should be allayed due to the fact that the study aligned schools by size, organizational structure, religious affiliation, and division.

Data on current school size was gathered through the current EARCOS Membership Directory (EARCOS, 2015). School type data was also collected regarding two areas, non-profit or proprietary, and religious or secular. These data alleviated any potential challenges to external validity by including data sets of schools of various sizes and organizational structures.

I argued that external validity would be strong if the sample mirrors the general EARCOS population in key characteristics in terms of school division respondents; if the percent of elementary schools in the sample matches the percent of elementary school in the population within the EARCOS region, for instance, or does not mirror the population, the bias can then be described in terms of its potential affects on the study.

Changing teacher and principal populations in international schools may have potentially challenge claims of external validity. Between 15-20% of school personnel, including principals and teachers, are likely to turn over each year within the region (Mancuso, Roberts & White, 2010). However, as teachers or principals new to schools this school year will have worked together for 30 weeks at the time of this survey, with rare exception, new personnel had more than superficial interactions with one another.

Table 3: Research Question Links to Instrumentation and Analysis

Research Question	Data Origin	Statistical Analysis
What is the current state of principals' intercultural competence in the EARCOS region?	Principal responses to the GPI with demographics	Mean, range and standard deviation of aggregated data from the six subgroups of the GPI
To what extent does gender correlate to a principal's intercultural competence in the EARCOS region?	Principal GPI survey data and principal demographic data	Hierarchical Linear Regression of eight control variables (categorical)
To what extent does a principal's education correlate to a principal's intercultural competence in the EARCOS region?	Principal GPI survey data and principal demographic data	Hierarchical Linear Regression of eight control variables (categorical)
To what extent does educational experience correlate to a principal's intercultural competence in the EARCOS region?	Principal GPI survey data and principal demographic data	Hierarchical Linear Regression of eight control variables (continuous)
To what extent does the number of long-term intercultural experiences spent in other cultures correlate to a principal's intercultural competence?	Principal GPI survey data and principal demographic data	Hierarchical Linear Regression of eight control variables (continuous)

To what extent does the amount of time spent in spent in other cultures correlate to a principal's intercultural competence?	Principal GPI survey data and principal demographic data	Hierarchical Linear Regression of eight control variables (continuous)
To what extent does a match between a principal's mother tongue and the main language of the school correlate to a principal's intercultural competence in the EARCOS region?	Principal GPI survey data and principal demographic data	Hierarchical Linear Regression of eight control variables (categorical)
To what extent does the number of languages a principal is fluent in correlate to a principal's intercultural competence in the EARCOS region?	Principal GPI survey data and principal demographic data	Hierarchical Linear Regression of eight control variables (continuous)
a match between a principal's ethnicity and the main ethnicity of the school correlate to a principal's intercultural competence in the EARCOS region?	Principal GPI survey data and survey sorting data	Hierarchical Linear Regression of eight control variables (categorical)
What is the current state of teachers' trust in principals in the EARCOS region?	Teacher responses to the CTTS subgroup for teacher trust in principals	Mean, range and standard deviation of aggregated data from the CTTS, compute a mean for each school, then compute the mean of means
To what extent does school size correlate to a teacher trust in their principals in the EARCOS region?	CTTS survey data and EARCOS Member Directory data	Hierarchical Linear Regression of five control variables (categorical)
To what extent does the organizational nature of a school (proprietary or non-profit) correlate to a teacher trust in their principals in the EARCOS region?	CTTS survey data and EARCOS Member Directory data	Hierarchical Linear Regression of five control variables (categorical)

To what extent does the religious or secular nature of the school correlate to a teacher trust in their principals in the EARCOS region?	CTTS survey data and EARCOS Member Directory data	Hierarchical Linear Regression of five control variables (categorical)
To what extent does the school division (elementary, middle, high, K-12) correlate to a teacher trust in their principals in the EARCOS region?	CTTS survey data and sorting questions data	Hierarchical Linear Regression of five control variables (categorical)
To what extent does a teacher's host country or expatriate education training program correlate to a teacher trust in their principals in the EARCOS region?	CTTS survey data and sorting questions data	Hierarchical Linear Regression of five control variables (categorical)
What is the relationship between a principal's intercultural competence and the degree of trust perceived by teachers in international school settings in the EARCOS region over and above the control predictors addressed in questions 2 and 4?	Principal responses to the GPI; teacher responses to the CTTS, school organization information, principal demographic survey	Regression of mean CTTS score (in a given school) on principals' GPI 6 subscale scores.

## **Chapter 3**

### **Findings**

The analyses began by culling teacher respondents from each participating school that did not have a corresponding divisional principal; similarly, principal respondents who lacked the minimum needed corresponding divisional faculty respondents were also culled from the sample. A total of 37 EARCos heads of school from the possible 146 schools (25.3% participation) in the region positively responded and disseminated the survey to faculty and principals. Several follow up emails to participating heads of school were needed to encourage both faculty and principals to respond to the survey. In total, 43 principals with sufficient faculty respondents, 405 faculty members, created 43 distinct complete data sets. Out of 327 principals in the EARCos region, this translates to a 13.15% response rate. Only one school met the criteria set where four teachers matched one principal in an elementary school as the total number of elementary faculty was below 16, thus four respondents was larger than 25% of the elementary faculty.

In terms of general population responses, the sample population mostly aligned with expectations in that the elementary middle, and high school respondents seemed to match general populations within schools. Elementary faculty represent approximately 35-50% of EARCos school personnel using the available data from the EARCos Membership Guide (EARCos, 2015); middle and high school faculty personnel also approximate numbers provided from the EARCos membership Guide (EARCos). However, it is critical to note that not all school data in the EARCos Membership Guide provided a detailed breakdown of the number of personnel in each division. Approximations were gleaned from reviewing the participating 43 member data sets. Also, several respondent schools had only two divisions, elementary and secondary,

with one only secondary school. EARCOS does not calculate the number of divisions (elementary, middle, high), nor does it calculate the number of faculty and principals serving in each division making a comparison of respondents to this survey to the entire EARCOS region not possible (Appendix N).

Table 4. Cross Tabulation for All EARCOS Faculty and Principal Respondents

Role	Elementary School	Middle School	High School	Secondary	K-12	Total
Faculty	121	37	66	135	64	423
Principal	15	4	5	14	6	44
Total	136	41	71	149	70	467

Table 5 indicates that the frequency distribution among respondents does not align well with the frequency distribution of the EARCOS region between principals and all faculty members. A 13.15 % response rate from 43 out of 327 principals in the EARCOS region was measured. In the EARCOS region, with 327 principals and Out of 14,180 faculty members in the EARCOS region, 424 faculty respondents represents a 3 % response rate from faculty (Appendix N). Far more principals responded to the survey than the proportion of corresponding teachers.

Table 5: Frequency Distribution of Roles

	Frequency	Valid %
Teacher	372	79.8
Teacher-Librarian-Media Specialist	9	1.9
Counselor	17	3.6
Psychologist	3	.6
IB Coordinator	10	2.1
Curriculum Coordinator	12	2.6

Principal	43	9.2
Total	466	100.0

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Each of the five research questions required different treatment. Questions one and two, regarding the nature of intercultural competency (IC) among principals and teacher trust in the EARCos region respectively, required calculating the mean, median and range for both aggregated sets of data. Question three utilized multiple regression analysis to determine what, if any, influence variable factors from principal demographic information may have on a principal's IC score. Question four likewise utilized school variable factors as possible influences on teacher trust. Finally, question five required multiple regression analysis on individual principal IC data for each usable subscale regressed to multiple regression analysis of school factors on corresponding teacher trust. Each data set was analyzed individually and also aggregated to provide findings for the whole EARCos region. Details of each level of analysis are provided in the following sections.

### **Principal Intercultural Competency in the EARCos Region**

Each of the 43 principal respondents received a score for each of the six subsections of the Global Perspective Inventory (GPI). Six questions were reversed scored with 1, strongly disagree, converting to 5 strongly agree, somewhat disagree (2) converting to somewhat agree (4), and neither agree nor disagree (3) remaining the same. Each respondent's sub scores were then aggregated to find the mean, median and range for all respondents to determine the intercultural competency among the EARCos sample. Tables 7-12 display aggregate data findings for each subscale.

A factor analysis of each subsection was conducted to discover the reliability of questions in each subsection displayed in Table 6. Three of the six subsections, Cognitive Knowledge,

Intrapersonal Identity, and Interpersonal Social Identity, met the minimum  $>.700$  Cronbach's alpha coefficient. However, subsection Cognitive Knowing had a Cronbach's alpha coefficient of  $=.15$  (10 items), Intrapersonal Affect  $=.55$ , and Interpersonal Social Interaction  $=.46$  did not meet this criteria, and were removed from the subset.

Table 6: Global Perspective Inventory Cronbach alpha coefficient findings for the EARCOS region sample

Subscale	Cronbach alpha coefficient
Cognitive Knowing	alpha=0.15
Cognitive Knowledge	alpha=0.72
Intrapersonal Identity	alpha=0.73
Intrapersonal Affect	alpha=0.55
Interpersonal Social Responsibility	alpha=0.74 (0.69)
Interpersonal Social Interaction	alpha=0.46

**Cognitive Knowing:** Reliability for the subscale Cognitive Knowing was extremely low with the Cronbach alpha for all 6 GPI CKn items = 0.15. The coefficient never reached 0.7 even after deleting items one by one. To use this subscale in this study by testing each item one by one increases the probability of type 1 error of false positives, and could create inaccurate results. However, the option to use factor analysis to identify the most representative item of the set of six items revealed that item 16 (I take into account different perspectives before drawing conclusions about the world around me) was the most representative item. Figure 8 depicts principal responses to proxy question 16 including the mean and standard deviation for this question. Table 7 shows the full data set from the Cognitive Knowing subscale that was not included in the final results.

Figure 8. GPI Subscale Cognitive Knowing Proxy Question Histogram for Individual Principal Responses

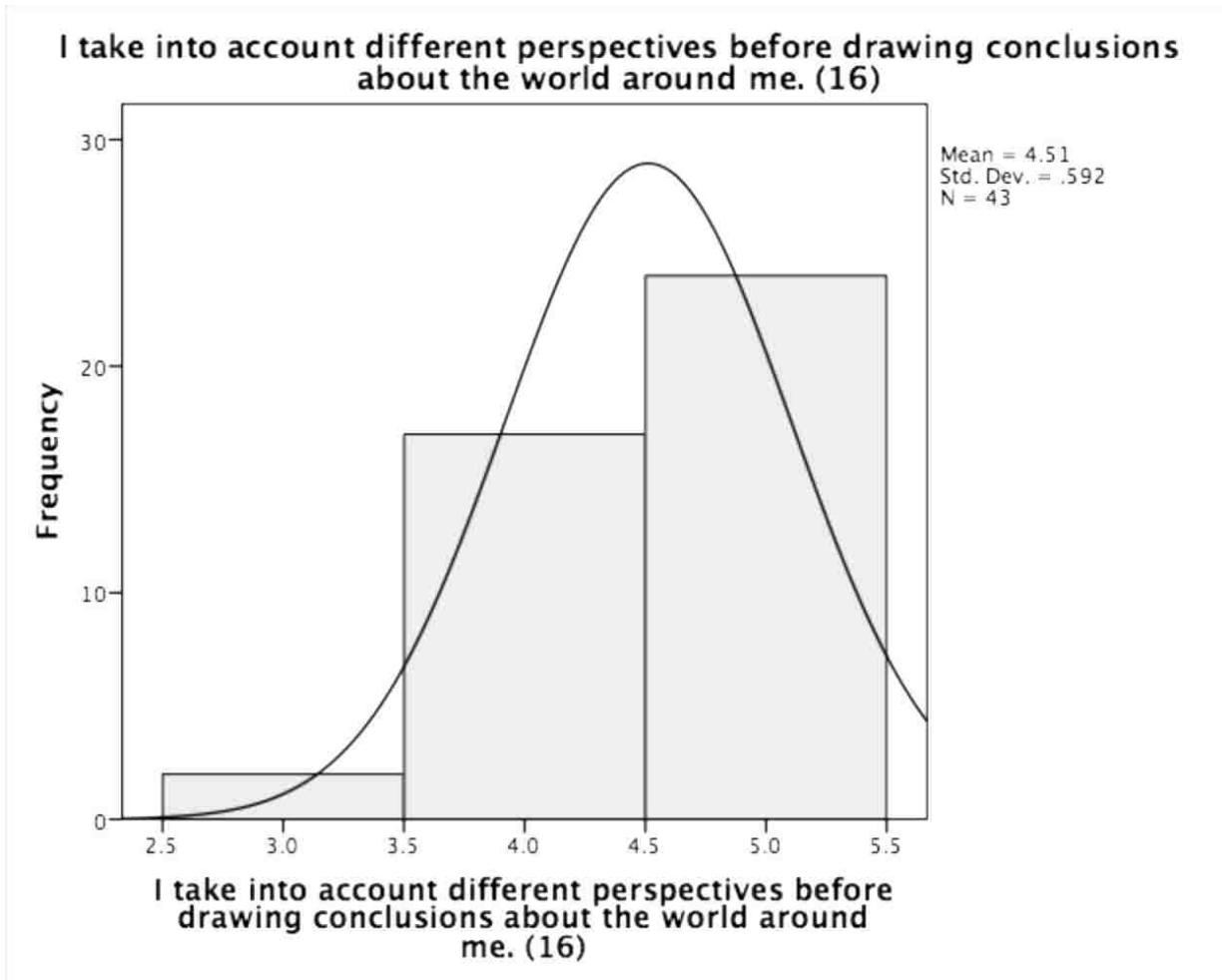


Table 7: Descriptive Statistics for Principal Responses to GPI Cognitive Knowing

	<i>N</i>	<i>M</i>	<i>SD</i>	Range	Min	Max
I take into account different perspectives before drawing conclusions about the world around me. (16)	43	4.51	.59	2	3	5
I consider different cultural perspectives when evaluating global problems. (19)	43	4.30	.60	2	3	5

I rely primarily on authorities to determine what is true in the world. (20)*	43	3.79	.94	4	1	5
I rarely question what I have been taught about the world around me. (30)*	43	4.12	.85	4	1	5
Some people have a culture and others do not. (6)*	43	4.47	.93	3	2	5
In different settings what is right and wrong is simple to determine. (7)*	43	3.81	1.10	4	1	5
GPI CKn Mean Value	43	4.17		4	1	5

**Cognitive Knowledge:** responses were found to be valid with a Cronbach alpha coefficient of .72. All of these questions were positively phrased. The mean was 4.2 indicating that principal responses fell between somewhat agree (4) and agree (5). Figure 9 provides grouped individual responses with the subscales mean, standard deviation, and sample size

Figure 9. GPI Cognitive Knowing Subscale Histogram for Individual Principal Responses

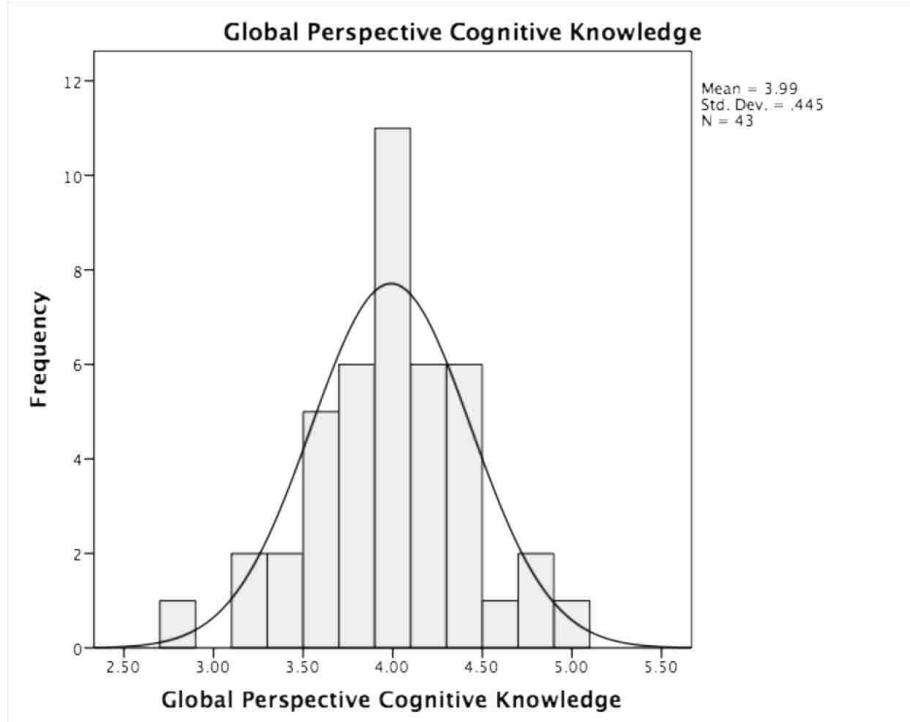


Table 8: Descriptive Statistics for Principal Responses to GPI Cognitive Knowledge

	N	M	SD	Range	Min	Max
I understand the reasons and causes of conflict among nations of different cultures. (13)	43	3.86	.60	3	2	5
I understand how various cultures of this world interact socially. (17)	43	3.95	.65	3	2	5
I know how to analyze the basic characteristics of a culture. (21)	43	3.72	.67	4	1	5
I can discuss cultural differences from an informed perspective. (27)	43	4.19	.63	3	2	5
I am informed of current issues that impact international relations. (8)	43	4.23	.68	3	2	5
GPI CK Mean Value	43	3.99		4	1	5

**Intrapersonal Identity:** The Cronbach Alpha for all 6 subscale II items was 0.73. This exceeds the criterion for reliability. Thus, all of the items in the scale were retained and a mean and standard deviation for the scale were computed as shown in Table 7 ( $M/SD = 4.42/.45$ ). A mean of 4.42 indicates that the typical principal responded either somewhat agree or strongly agree to the interpersonal identity items. Figure 10 presents grouped principal responses to this subscale and includes the group mean, standard deviation and sample size.

Figure 10. GPI Intrapersonal Identity Subscale Histogram for Individual Principal Responses

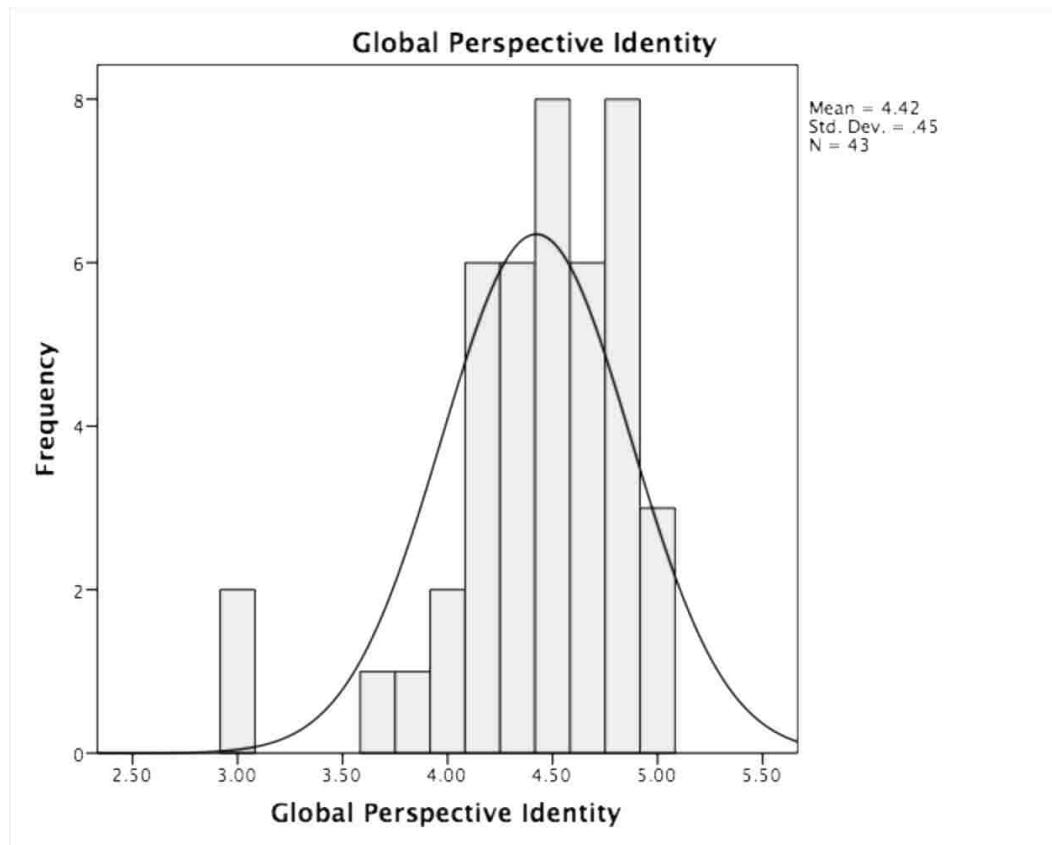


Table 9: Descriptive Statistics for Principal Responses to GPI Intrapersonal Identity

	<i>N</i>	<i>M</i>	<i>SD</i>	Range	Min	Max
I am willing to defend my own views when they differ from others. (12)	43	4.19	.63	3	2	5
I put my beliefs into action by standing up for my principles. (18)	43	4.42	.76	3	2	5
I have a definite purpose in my life. (2)	43	4.47	.93	4	1	5

I am developing a meaningful philosophy of life. (28)	43	4.12	.73	3	2	5
I know who I am as a person. (9)	43	4.65	.48	1	4	5
I can explain my personal values to people who are different from me. (3)	43	4.70	.51	2	3	5
GPI II Mean Value	43	4.42	.45	4	1	5

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**Intrapersonal Affect:** The Intrapersonal Affect subscale had a Cronbach alpha of .55, indicating that the entire subscale failed to meet the minimum for inclusion in the study. All four items in this subsection are positively worded. However, the option to use factor analysis to identify the most representative item of the set of four items found that item 33 (I am open to people who strive to live lives very different from my own life style) was the most representative item. In other words, this item had the highest multiple correlation with the other items in the set. This item will be used as a proxy for the Intrapersonal Affect scale score.

Figure 11 depicts individual principal responses to this proxy question and includes the mean, standard deviation and sample size for this question.

Figure 11. GPI Intrapersonal Affect Proxy Question Histogram for Individual Principal Responses

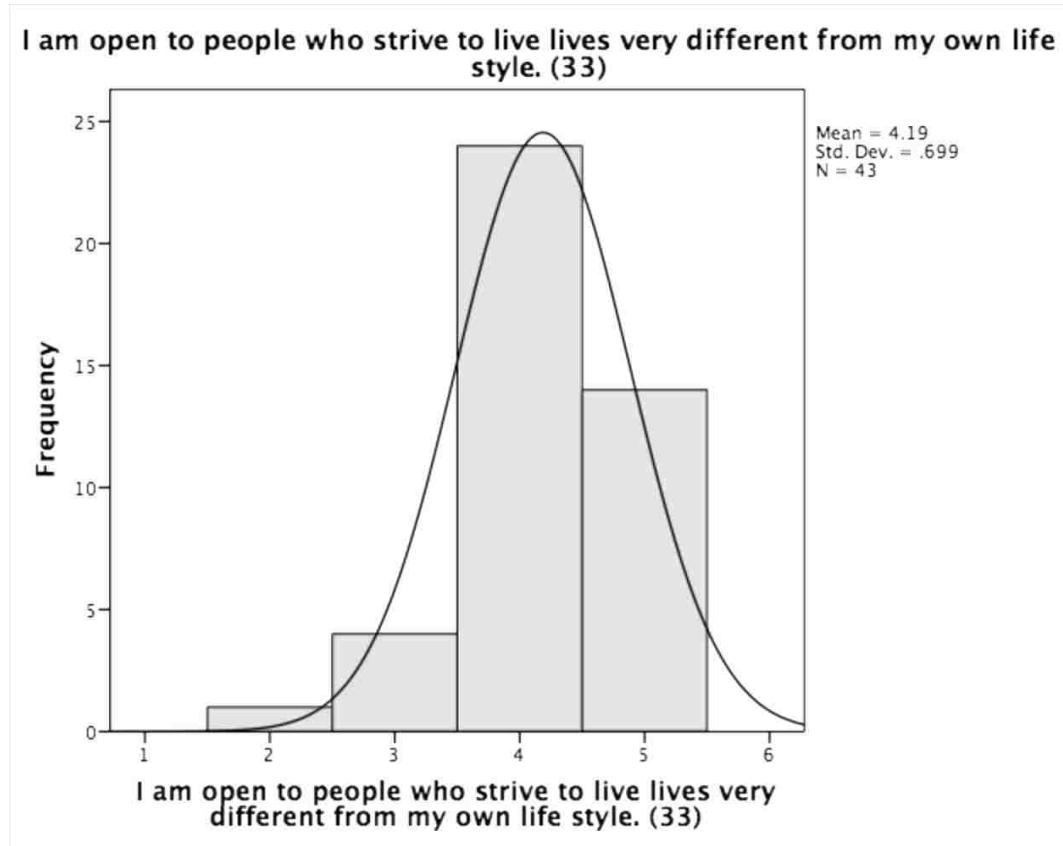


Table 10: Descriptive Statistics for Principal Responses to GPI Intrapersonal Affect

	N	M	SD	Range	Min	Max
I am sensitive to those who are discriminated against. (22)	43	4.35	.53	2	3	5
I do not feel threatened emotionally when presented with multiple perspectives. (23)	43	4.44	.63	3	2	5

I enjoy when my friends from other cultures teach me about our cultural differences. (31)	43	4.60	.49	1	4	5
I am open to people who strive to live lives very different from my own life style. (33)	43	4.19	.70	3	2	5
GPI IA Mean Value	43	4.40		4	1	5

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**Interpersonal Social Responsibility:** Table 11 shows the mean scores for each of the GPI Social Responsibility (SR) items. All but one question, number 34, of the GPI SR items are positively worded; all negatively worded questions are indicated by an asterisk. The mean scores hover near 4, which is interpreted as “somewhat agree” (4) for the positively worded items and “somewhat disagree” (2) for the negatively worded item.

The combined Cronbach Alpha the 5 GPI SR items =.69, not meeting the criterion of .70. However, when item 26 was deleted, the reliability coefficient increased to =.74. This exceeds the criterion for reliability. Item 26 was deleted from the scale and the mean score on the basis of the remaining 4 items was computed. I computed a mean and standard deviation for the scale as shown in Table 9 ( $M/SD = 4.08/.53$ ). This mean indicates that the typical principal responded “somewhat agree” to the positively worded social responsibility items and “somewhat disagree” to the negatively worded social responsibility item. Figure 12 illustrates individual principal responses to this subscale with the one item (26) removed from the histogram and the calculated mean, standard deviation.

Figure 12. GPI Interpersonal Social Responsibility Histogram for Individual Principal Responses

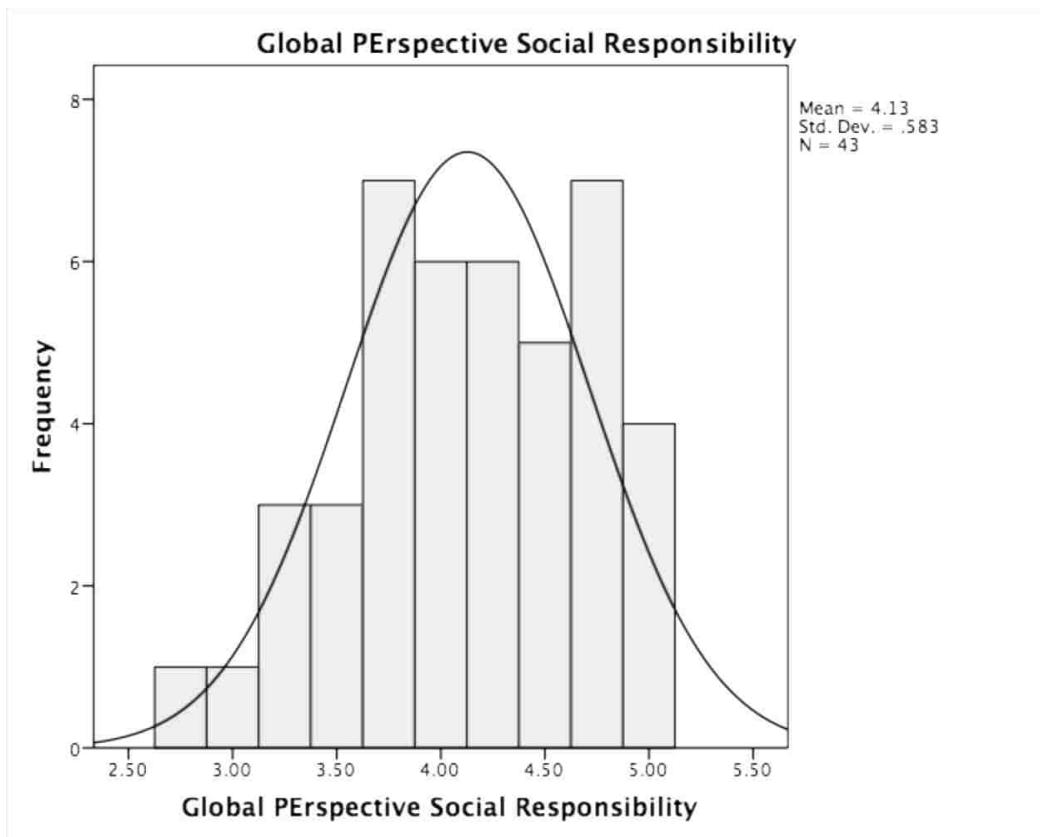


Table 11: Descriptive Statistics for Principal Responses to GPI Social Responsibility with Item 26

	N	M	SD	Range	Min	Max
I work for the rights of others. (14)	43	4.19	.70	3	2	5
I put the needs of others above my own personal wants. (26)	43	3.79	.86	3	2	5
I consciously behave in terms of making a difference. (32)	43	4.35	.57	2	3	5
Volunteering is not an important priority in my life. (34)*	38	4.03	1.08	3	2	5

I think of my life in terms of giving back to society. (5)	43	4.07	.70	3	2	5
GPI SR Mean Value	43	4.08	.53	.28	2	5

\* Reverse coded

**Interpersonal Social Interaction:** Cronbach Alpha for all 4 GSI items = 0.46. The scale did not reach 0.7 even after deleting items one by one. Here again, the same problem for the inferential tests, to conduct the tests separately for each item creates the same problem again of increasing the probability of type 1 error with so many tests. This subscale was deleted from consideration for this study. After factor analysis, the item “Most of my friends are from my own ethnic background” was the most representative of this subscale and will be used as the proxy question for the Social Interaction Subscale.

Figure 13. GPI Social Interaction Proxy Question Histogram for Individual Principal Responses

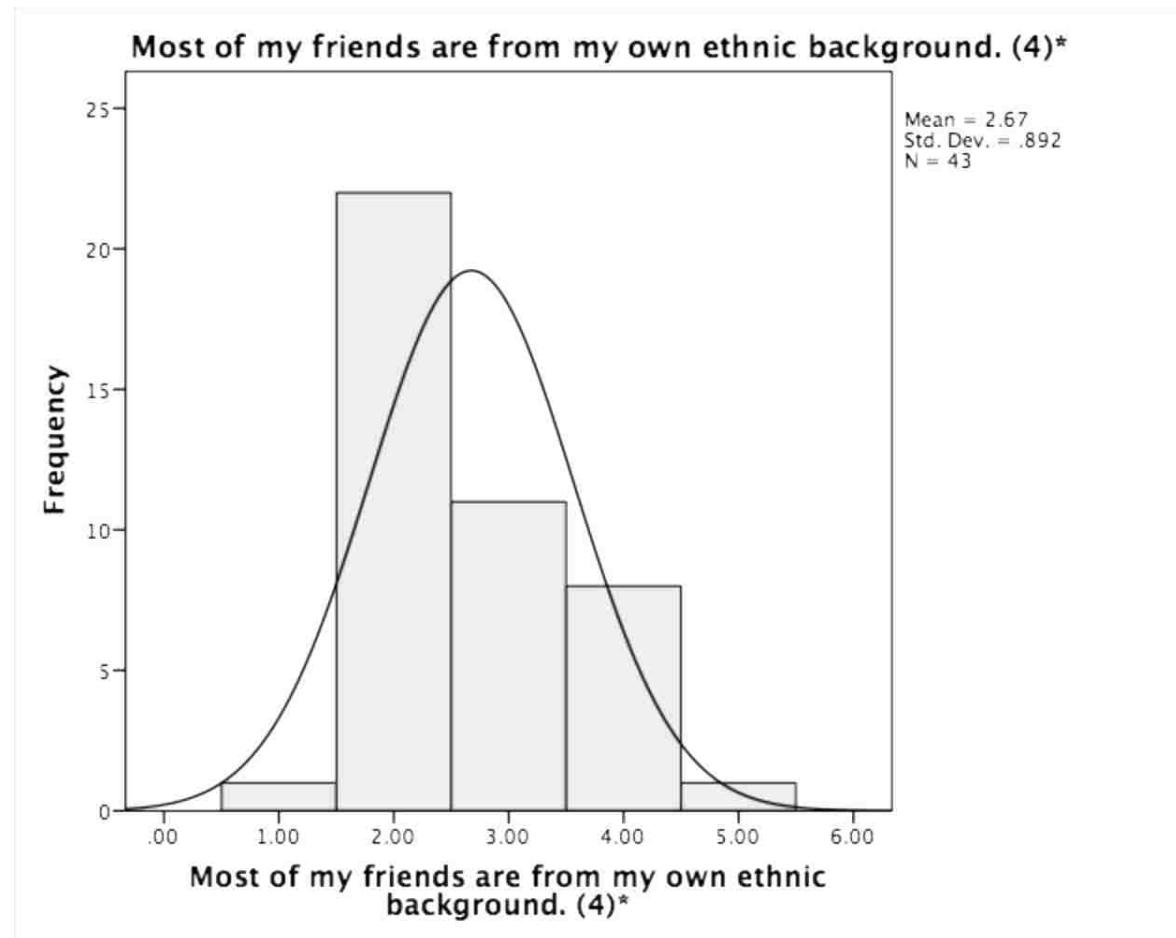


Table 12: Descriptive Statistics for Principal Responses to GPI Social Interaction

	<i>N</i>	<i>M</i>	<i>SD</i>	Range	Min	Max
I frequently interact with people from a race/ethnic group different from my own. (24)	43	4.70	.60	3	2	5
I am accepting of people with different religious and spiritual traditions. (25)	43	4.47	.59	2	3	5
I intentionally involve people from many cultural backgrounds in my life. (29)	43	3.84	.87	3	2	5
Most of my friends are from my own ethnic background. (4)*	43	2.67	.89	4	1	5
GPI SI Mean Value	43	3.92		4	1	5

### **Multiple Regression Analysis of Principal Intercultural Competency and Principal Demographic Data**

Research question three contained eight sub-sections of discreet demographic items that served as variable factors to self-reported principal GPI responses for their intercultural competency. These variable factors included: gender, education, years as an educator, number of intercultural experiences outside of one's culture for six months or more, amount of time spent outside of one's culture, a principal's match of mother tongue with the majority of faculty members, the number of languages spoken beyond one's native tongue, and alignment of ethnicity with the majority of one's faculty members of the school at which the principal currently serves. Table 13 shows the frequency distribution for principal respondents for each of

the eight variable factor data collects in the principal demographic questions that followed the GPI survey.

Table 13: Principal frequency responses for eight factor variables

Gender	Frequency	Valid %	Education	Frequency	Valid %
Valid	Female	17	39.5	Bachelor Degree	3 7.1
	Male	25	58.1	Masters Degree	37 88.1
	Trans-gender	1	2.3	Doctoral Degree	2 4.8
	Total	43	100.0	Total	42 100.0
# of years outside one's culture	Range	Respondents	# of intercultural experiences	Range	Respondents
Valid	Low	3	Valid	Low	1
	High	37	Valid	High	26
	Range	34		Range	25
	Total	43	Total		
Years as an educator	Range	Principal Responses	Similarity to school majority mother tongue	Frequency	Valid Percent
Valid	Low	6	Valid	Yes	36 83.7
	High	42		No	7 16.3

Range	36	43	Total	42	100.0
Language Fluency beyond mother tongue	Frequency	Valid %	Ethnicity Match with Faculty		
0	24	55.8	Yes	28	66.7
1	17	39.5	No	13	31.0
Valid	2	1	2.3	Not sure	1
3	1	2.3			2.4
Total	43	100.0	Total	42	100.0

Among the eight variable factors regressed with principal self-reported responses to the GPI survey, gender, education, years as an educator, number of intercultural experiences outside of one's culture, amount of time outside of one's culture, and mother tongue match with the majority of faculty members showed little to no correlation over a principal's self-reported intercultural competency. Interestingly, principals who reported speaking more than one language and those who reported having a different ethnicity than the majority of their faculty self-reported higher intercultural competencies across all six subscales than their colleagues who reported being mono-lingual or having an the same ethnicity as the majority of their faculty members.

Table 14 presents the results of the links between principals' intercultural competence and the principals' demographic variables. The multivariate relationship between each predictor variable and the multiple outcome variables is summarized by Pillai's Trace.

Table 14: The Relationship between Principals' Intercultural Competency and Principals' Demographic Characteristics as described by Pillai's Trace Coefficient

Predictor Variable	Gender	Education	Years Experience	Number of Intercultural Experiences
Coefficient	.28	.05	.25	.24
Predictor Variable	Years spent Overseas	Language Match	Number of Languages	Ethnicity Match
Coefficient	.22	.27	0.30*	0.71***

\*  $p < 0.05$ . \*\*  $p < 0.005$ . \*\*\*  $p < 0.0005$ .

**Conceptual research question 3a** To what extent does gender correlate to a principal's intercultural competence in the EARCOS region? Because Pillai's Trace was not significant (.28,  $p = \text{ns}$ ), the conclusion within this study is that gender, whether male, female, or transgender, as a variable factor, does not hypothetically influence principal intercultural competency.

**Conceptual research question 3b** To what extent does a principal's education correlate to a principal's intercultural competence in the EARCOS region? Similarly, with a Pillai's Trace of .05, education had no significant relationship towards a principal's self-reported intercultural competency within the EARCOS region. In fact, principals' education had the weakest effect of all eight variable factors accounted for.

**Conceptual research question 3c** To what extent do years of experience correlate to a principal's intercultural competence in the EARCOS region? Again, the Pillai's Trace of .25 does not link a principal's years of experience as an educator to intercultural competence within this study.

**Conceptual research question 3d** To what extent do the number of long-term intercultural experiences spent in other cultures correlate to a principal's intercultural

competence? With a Pillai's Trace coefficient of .24, long-term intercultural experiences outside of one's culture did not show a significant correlation on self-reported principal intercultural competency within the EARCos region.

**Conceptual research question 3e** To what extent do the number of years spent in spent in other cultures correlate to a principal's intercultural competence? Again, with a Pillai's Trace of .22, this variable factor did not indicate that it was linked to any changes to principals' responses to the GPI.

**Conceptual research question 3f** To what extent does a match between a principal's mother tongue and the main language of the school correlate to a principal's intercultural competence in the EARCos region? With a Pillai's Trace coefficient of .27, language match between a principal and the main language of the school did not muster the significant influence towards a principal's self-reported intercultural competency.

**Conceptual research question 3g** To what extent does the number of languages a principal is fluent in correlate to a principal's intercultural competence in the EARCos region? Being bi-lingual or multilingual did show significant influence over a principal's self-reported intercultural competency. With a Pillai's Trace coefficient of .30, principals who are multilingual reported higher levels of intercultural competency than monolingual principals. Table 15 shows mono- and multi-lingual principal respondents' mean scores for each of the 6 subscales. A score of "3" = "neither agree nor disagree" is neutral in the GPI, while a score of "4" = "agree" and "5" = "strongly agree" show positive responses. Negatively worded questions in any of the subgroups with responses of 1, 2, or 3 would correspond to a 5, 4, or 3 respectively. The effect size was a partial eta-squared of 0.30, which is considered a large effect size (Cohen, 1973).

Table 15 shows the mean scores of multilingual respondents as higher in every category compared to monolingual respondents with the exception of one. The one item in the GPI where monolingual respondents had a higher mean score than the multilingual respondents was item 33 (I am open to people who strive to live lives very different from my own life style). From these data, however, multilingual principals have higher levels of self-reported intercultural competency than do monolingual principals. Note that the table shows simply monolingual principals and multilingual principals. As the sample size of principals that spoke more than one language other than their mother tongue was small, the data was organized categorically for monolingual and multilingual speakers only.

Table 15: Means Scores of Monolingual Principals Compared to Multilingual Principals

	Language number	Mean	Std. Deviation	N
Global Perspective Cognitive Knowledge	1.00	3.92	.49	24
	2.00	4.08	.37	19
Global Perspective Intrapersonal Identity	1.00	4.38	.43	24
	2.00	4.48	.48	19
Global Perspective Interpersonal Social Responsibility	1.00	3.94	.56	24
	2.00	4.37	.53	19
I am open to people who strive to live lives very different from my own life style. (33)*	1.00	4.33	.64	24
	2.00	4.00	.75	19
I take into account different perspectives before drawing conclusions about the world around me. (16)**	1.00	4.46	.59	24
	2.00	4.58	.61	19
Most of my friends are from my own ethnic background. (4)***	1.00	2.58	.78	24
	2.00	2.79	1.03	19

\* Representative question for Cognitive Knowing; \*\* representative question for Intrapersonal Affect; \*\*\* representative question for Interpersonal Social Interaction

**Conceptual research question 3h** - To what extent does a match between a principal's ethnicity and the main ethnicity of the school correlate to a principal's intercultural competence in the EARCOS region? Table 16 shows that the mean scores of principals for whom ethnicity did *not* match the main ethnicity of their school was higher in every category, except for one, compared to principals for whom ethnicity did match the main ethnicity of their school. The exception to the rule was the Global Perspective Identity category where the mean score of principals for whom ethnicity did not match the main ethnicity of their school was lower compared to principals for whom ethnicity did match the main ethnicity of their school.

The effect size was .05, considered a small to medium effect size (Cohen, 1973). The general conclusion within this study is that principals for whom ethnicity does not match the main ethnicity of the school perceive themselves to have a higher level of intercultural competency as compared to principals for whom ethnicity is a match to the school.

Table 16: Means Scores on GPI Scales and Variables for Ethnicity Match versus Not a Match

	Is your ethnicity the same as the majority of the professional faculty of the school?	Mean	Std. Deviation	N
Global Perspective Cognitive Knowledge	Yes	3.91	.47	28
	No	4.12	.40	13
	Not sure	4.20	.	1
Global Perspective Identity	Yes	4.43	.41	28
	No	4.40	.56	13
	Not sure	4.00	.	1
Global Perspective Social	Yes	3.93	.53	28

Responsibility	No	4.58	.39	13
	Not sure	3.25	.	1
I am open to people who strive to live lives very different from my own life style. (33)	Yes	4.07	.77	28
	No	4.38	.51	13
	Not sure	5.00	.	1
I take into account different perspectives before drawing conclusions about the world around me. (16)	Yes	4.39	.63	28
	No	4.85	.38	13
	Not sure	4.00	.	1
Most of my friends are from my own ethnic background. (4)*	Yes	2.43	.74	28
	No	3.31	.95	13
	Not sure	2.00	.	1

### **Teacher Trust in Principals in the EARCOS Region**

The teacher trust in principals component of the Comprehensive Teacher Trust Scale (CTTS) revealed consistent results in terms of validity with those conducted in larger public schools in the United States (Hoy & Tschanen-Moran, 1999; Tschanen-Moran, 2004). The Cronbach alpha coefficient for the Trust items was 0.95, well above the .70 required criterion needed. The mean, standard deviation, and range of all eight items were calculated (Table 17); the mean ( $m$ ) is  $m = 4.52$  and standard deviation (SD) SD= 1.19 for the teacher trust in principals CTTS scale. Thus, the typical EARCOS teacher tends to agree or somewhat agree to the positively worded trust items and tends to disagree or somewhat disagree to the negatively worded trust items. This would indicate a high level of generalized trust in principals from their corresponding teachers in the EARCOS region.

Table 17: Mean, Standard Deviation, and Range of EARCOS teacher Trust in Principal Responses

	Valid	405.00
N		
	Missing	61.00
Mean		4.52
Std. Deviation		1.19
Variance		1.42
Minimum		1.00
Maximum		6.00

### **Multiple Regression Analysis of Teacher Trust in Principals with School Data**

Research question four contains four variable factors regressed to self-reported responses by EARCOS teachers on generalized perceptions of trust towards their principal. The four variable factors are school division (categorical), school organizational type (categorical), religious affiliation (categorical) and school size (continuous). These school qualities were collected by the initial categorizing questions at the start of the survey for school division, and from the EARCOS Membership Guide (2015) for school organization, religious affiliation, and size. Table 18 shows the theoretical relationship to each of the four school qualities plus in/out of host country certification analyses.

Table 18: Standardized Regression Coefficients for the Links Between Trust and the School Level Descriptors

Predictors	Model A	Model B	Model C	Model D	Model E
School size	$2.4 \times 10^{-4}^{**}$				
Profit Type		.97***			
Religious Type			-.52*		
Division				-.07*	
Certification Match					.07

\*  $p < 0.05$ . \*\*  $p < 0.005$ . \*\*\*  $p < 0.0005$ . <sup>a</sup>Average coefficient for each division contrast.

**School size** came out as a variable factor showing significant theoretical influence.

Research question 4a asks, “To what extent does school size correlate to teachers’ trust in their principals in the EARCos region? While the regression coefficient appears to be small at  $2.4 \times 10^{-4}$ , this is due to sheer size of the sample population and the effect of what adding one child to a whole school population would have on the effect. The effect was significant in that for each additional child the trust value increases by .00024 standard deviation units.

**School organization:** Research Question 4b asks, “To what extent does the organizational nature of a school (proprietary or non-profit) correlate to teachers’ trust in their principals in the EARCos region?” The organizational structure of the school, either non-profit or proprietary, also showed a strong theoretical connection to teacher trust.

Teachers at non-profit schools in the EARCos region showed consistently higher levels of trust in their principal than their colleagues at proprietary schools. As shown on Table 18, the standardized regression coefficient for profit type (.97) was significant ( $p < .0005$ ) indicating significant differences by profit type.

More specifically, the mean trust score for teachers in non-profit schools ( $m = 4.73$ ) was greater than the mean score for teachers in for-profit schools ( $m = 3.76$ ). A score of 4 on the trust scale indicates a teacher somewhat agrees with the positively-worded items and a score of 5 means the teacher agrees with the positively worded items. The score for teachers in non-profit schools is closest to a score of 5 and can generalize that teachers at non-profit EARCOS schools tend to agree with the positively worded items. The score for teachers in proprietary schools is closer to a score of 4 than a score of 3 (neutral), so we can generalize by saying these teachers tend to agree somewhat with the positively worded items.

**Religious affiliation:** Data collected to answer the research question 4c, “To what extent does the religious affiliation of a school (secular or religious) correlate to teachers’ trust in their principals in the EARCOS region?” reveals a theoretical connection of religious affiliation and increased teacher generalized trust in their principals. Data presented in Table 18 show that teachers at religious schools in the EARCOS region have higher responses on the trust scale than teachers from secular schools. The mean score for teachers in secular schools was 4.47 and the mean scores for teachers in religious schools was 5.00. While both categories reveal high levels of trust from teachers towards their principal in the EARCOS region, teachers at religious affiliated schools responded to the survey with higher levels of trust on the Trust scale.

**School Division:** Data responses collected to answer the research question 4d, “To what extent does school division correlate to teachers’ trust in their principals in the EARCOS region?” revealed unexpected results. As shown in Table 18, the link between school division and trust was significant ( $B = -.07, p < .05$ ). The effect size was .06, a moderate effect size (Cohen, 1973). What is significant is that the mean trust score for teachers at the high school level was significantly greater than the mean trust scores for teachers at both the elementary level ( $p < .05$ )

and for teachers in K-12 schools ( $p < .0005$ ). The differences between middle and high school teachers was less marked, although middle school teachers mean trust scores were lower than high school teacher scores by .21. The means for each group are presented in Table 19.

Table 19: Mean Scores of EARCOS Teacher Trust

School Division	Mean	SD	N
Elementary School	4.61	1.18	112
Middle School	4.85	1.01	36
High School	5.06	.73	63
K-12	4.27	1.31	69
Total	4.66	1.14	280

**Teacher certification:** Research question 4e asks, “To what extent does host country educational training correlate to teacher trust in their principals in the EARCOS region? The mean score for teachers who answered “yes” was 4.58 and the mean score for teachers that answered “no” was 4.51. As shown on Table 18, the standardized regression coefficient for profit type (.07) was not significant indicating no significant differences based on where teachers were certified. The mean trust score for teachers with in-country certification ( $m = 4.58$ ) was marginally higher than the mean score for teachers with out-of-country certification ( $m = 4.51$ ) with a difference of .07.

### **Multiple Regression Analysis of Principal Intercultural Competency and Teacher Trust in the EARCOS Region**

The following analysis includes the individual analysis of all 43 discreet data sets of principal GPI data with corresponding teacher trust data regressed against contributing school variables of school size, organizational type, division, and religious affiliation. The data sets

were then aggregated to show any EARCOS region trends regarding principal GPI responses, teacher trust, and any influencing variables school qualities may hypothetically have on this relationship. This section includes data to answer research question 5, “What is the relationship between a principal’s intercultural competence and the degree of trust perceived by teachers in international school settings in the EARCOS region over and above the control predictors addressed in questions 2 and 4?”

Table 20 presents data for aggregated teacher trust mean scores regressed onto aggregated principal self-reported intercultural competency mean scores from all 43 complete data sets. Table 20 does not include variable factors related to either IC or trust from research questions 3 or 4. The data shows that there is no significant theoretical relationship to teacher trust in principals and a principal’s intercultural competency. The data supports this conclusion across the three complete subscales of the GPI (Cognitive Knowledge, Interpersonal Identity, and Social Responsibility) and the three representative questions for Cognitive Knowing, Intrapersonal Affect, and Social Interaction.

Table 20: Teacher Aggregated Mean Scores Regression to Principal Aggregated Mean Scores

Global Perspective Cognitive Knowledge	.05
Global Perspective Identity	.33
Global Perspective Social Responsibility	-.04
I am open to people who strive to live lives very different from my own life style. (33)	-.33
I take into account different perspectives before drawing conclusions about the world around me. (16)	.15
Most of my friends are from my own ethnic background. (4)	.12

Similarly, Table 21 presents data for aggregated teacher trust mean scores regressed onto aggregated principal self-reported intercultural competency mean scores from all 43 complete

data sets but is a multiple regression model that includes variable factors related to teacher trust. Included in the MANOVAs were school variable factors of size, organizational type, religious affiliation, division and in/out host country teacher certification. These data support that there is no significant theoretical relationship to teacher trust in principals and a principal's intercultural competency. In fact, the inclusion of these variable factors reduced the degrees of freedom with each added category to the research model, thus further diminishing the effect of the regression coefficients within the model.

Table 21: Teacher Aggregated Mean Scores Multiple Regression to Principal Aggregated Mean Scores with School Variable Factor Data of Size, Type, Religious Affiliation, Division and Teacher Country Certification

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Global Perspective Cognitive Knowledge	.26
Global Perspective Identity	.16
Global Perspective Social Responsibility	-.14
I am open to people who strive to live lives very different from my own life style. (33)	-.34
I take into account different perspectives before drawing conclusions about the world around me. (16)	.20
Most of my friends are from my own ethnic background. (4)	.08

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The key finding of this study is that the hypothesis that there is a correlation between principal intercultural competency and trust was not found to exist. However, other key findings related to the two predictor variables from the principal demographic data and four predictor variables from school organizational data were found to have a strong theoretical influence on principal intercultural competency and teacher trust in principals respectively. Principals who serve in schools where they are in the ethnic minority, and who are multilingual self reported higher levels of intercultural competency. School size, school division, the profit status of a

school and the religious nature of a school all had significant links to the levels of teacher trust in their principals. These predictor variables for each construct, implications for further research, and implications for practice for leaders in the EARCOS region are discussed in the final chapter.

## **Chapter 4**

This study was a preliminary step at looking at intercultural competence (Bennett, 1993; Brasscamp, Brasscamp & Engberg, 2004; Hammer, Bennett & Wisemen, 2003) and teacher trust in school leaders (Hoy & Tschannen-Moran, 1999; Tschannen-Moran, 2012). In general, this study showed robust levels of intercultural competency among responding principals and positive levels of trust from EARCOS educators towards their principals. While self-reported, principals in the EARCOS region have positive perceptions of their own levels of intercultural competency. EARCOS educator responses, aligned with their principal responses, also self-reported generally positive levels of trust for their principals. The main purpose of the study was to determine if a significant correlation exists between a principal's intercultural competency and the degree of trust engendered among his or her faculty in the EARCOS region. The findings indicate that there is little to no correlation between a principal's intercultural competency and trust engendered with faculty members.

With that said, and considering the hypothetical affect of the predictor variables on each of the two constructs studied, a bigger picture emerges regarding the findings of this study, its shortcomings, and avenues for future study. In total, the compilation of these findings is more interesting and descriptive than the analyses of individual facets of this study. The lack of correlation between principal intercultural competency and the development of teacher trust cannot be completely affirmed by this study as it is: one study; with mixed reliability from half of the subsections of the GPI scale, a new population for both inventories; limited in respondent population size; and that the hypothetical relationship between teacher trust and principal intercultural competency and their variables may be masked by or nested within other constructs,

such as covariate interference between each of the predictor variables, school climate and health, or organizational efficacy. As intercultural competency is most often described as a continuum, (Bennett, 2008; Brasscamp, Brasscamp, & Engberg, 2014; Deardorff, 2009), the singular collection of data in this study warrants revisiting how these findings could be constructed longitudinally in future studies. Similarly, trust varies over time, through the people in the organization, and at various organizational roles to take on different levels of importance (Mishra & Mishra, 2013). A longitudinal study of trust in one school or several schools would support the cyclical model of how trust is created, maintained and destroyed over time.

Additionally, rather than parsing the predictor variables into isolated findings, discussion is better served by looking at how the predictor variables for principal intercultural competency and for teacher trust respectively join to create a more powerful image of how variable factors theoretically affect each construct. This holistic approach to the discussion will also tend to mitigate how the predictor variables may confound each other in terms of ascribing meaning or weight to their value.

### **Key Findings of the Study**

In response to each research question regarding intercultural competency and trust respectively, predictor variables for each construct contributed to heightened or diminished levels of teacher trust. Taken in isolation, the predictor variables (multilingualism and being in the ethnic minority) that correlated with higher levels of intercultural competency are interesting, but together indicate something larger that hypothetically influences a principal's intercultural competency, namely effort. These findings support the literature (Bennett, 1998, 2013; Deardorff, 2011; Spitzberg & Chagnon, 2004) that describes cognitive skills, intrapersonal awareness, and interpersonal skills, and not simply exposure to other cultures, as necessary for

intercultural competency development. Principals in the ethnic minority of a school, who had worked hard to learn a second or third language tend to access and employ all three skill sets. Multiple studies presented in this study's literature review indicate that it is a person's purposeful action and interaction with each unique culture he or she operates within that produces greater competency, not mere exposure (Deardorff, 2011; Hammer, Bennett, & Wiseman, 2003)

Additionally, competency in one culture does not ensure competency in another, as culture is both product and process, each with its own unique attributes (Barrett, 2012). My findings suggest that, aligned with intercultural competency theory (Bennett, 2009; Deardorff, 2009) that equates active participation with greater competency, principals that operate in the ethnic and cultural minorities of the schools within which they serve are pressed to work more purposefully and bridge cultural differences than principals who are in the ethnic majorities, considering that all of these principals are striving for successful school interactions.

The four school predictor variables that significantly correlated with changes to teacher trust responses present some additional and interesting challenges for discussion. First, the findings of this study indicate that larger schools having greater levels of trust, counter to consistent research findings (Bryk & Schneider, 2003). Similarly, school division, with high school teachers reporting the highest levels of trust to middle school, elementary, K-8 and K-12 teachers respectively, is difficult to assess as most studies are performed at the divisional level. Response rates from respective divisions were also disproportionate to the entire EARCOS region, further limiting the ability to assign theoretical influence to this predictor variable. Profit status and religious affiliation also hypothetically influenced teacher trust levels. These two predictor variables do align with expected results and also indicated the most diminished and most increased theoretical influences on teacher trust towards their principal respectively.

## **Discussion**

**Intercultural Competency.** Findings from this study mirror research and theoretical models from studies on intercultural competence. Several recurring, common aspects from established intercultural competency models, including cognitive skills, self-awareness, and awareness of others as key factors in the development of intercultural competence (Bennett, 2008; Brasscamp, Brasscamp & Engberg, 2004; Deardorff, 2009) were tested in this study through the GPI survey.

The correlation between principals that were in the ethnic minority at the school they serve, are multilingual, and reported heightened intercultural competency was strong and statistically significant. These results align with the research that associates intercultural competency as dynamic, intentional, thoughtful interactions with members of different cultures and ethnicity (Barrett, 2012; Bennett, 1998, Deardorff, 2011; Hammer, Bennett, & Wiseman, 2003). Multilingual principals move past being cultural ambassadors, and actively engage in culture and language learning (Guilherme, 2000). In this respect, multilingualism parallels the motivation of principals who are in the ethnic minority in that they, by circumstance or desire, move beyond their own cultural and linguistic borders and not rely on the structures of power that often insulate international school leaders. This also aligns well with research that defines intercultural competency as the ability to effectively interact with other cultures, and in other's native languages (Byram and Zarate, 1996). Conversely, as a member of the dominant culture, no active effort is required; principals of the same ethnicity as the ethnic majority of the school are also do not required to actively integrate or understand minority stances within their schools (Milliken & Martins, 1996).

Within Southeast Asia, the higher levels of intercultural competency self-reported by principals who are in the ethnic minority of the school they serve may be the result of in-group needs and behaviors of cultural groups in the region. Asian cultures are more likely to trust out-group individuals than western cultures if there is the likelihood of greater interpersonal links and in-group benefit (Yuki, Maddux, Brewer & Takemora, 2004).

These two ideas of effort, and reward for that effort by being granted in-group status, combine with powerful results for principals who take risks, move out of cultural comfort zones and engage with faculty in the ethnic majority. Western principals in ethnic minorities, by circumstance, may extend themselves beyond normal in-groups to the ethnic majorities in their schools. By doing so, they are likely met with positively by in-group members who see value in adding out-group members who can contribute to the betterment and well being of in-group members. This acceptance validates a principal's efforts to engage and grow beyond his or her own culture. The risk is rewarded through in-group status, and the principal potentially gains greater organizational efficacy, support, and professional satisfaction.

Another consideration is that the principals who take positions in schools where they are in the ethnic minority, or have made the effort to learn another language, have the personality to do so. Remembering Bennett's (1998) description of how we seek homogeneous environments and eschew differences, to the point of war, it takes a special personality to actively place oneself in a position that trades in sameness, comfort, and in-group standing for newness, discomfort and out-group status. Privileges are extended to those of similar socio-economic, ethnic or familial backgrounds (Zucker, 1986). Less effort is required to have in-group status. People who place themselves in these conditions work hard to regain in-group status to be successful rather than working in one's own culture, or as the ethnicity of power within a school. The decision to move

into out-group status, and then work to reenter in-group status may be motivated by more than the desire to be a good principal, but a deeper character trait that compels one to seek new and continued challenges.

While Rose, Ramalu & Uli's (2010) research seems to support that EARCOS school leaders, most of whom have some degree of out-of-own-culture experiences, have positive perceptions of their own competency, the predictor variables of time spent in other cultures and the number of out-of-culture experiences showed no correlation to increased reported intercultural competency in this study. While the positive reported levels of intercultural competency in the EARCOS region seems to agree with Rose et al's premise, the specific predictor variables meant to hypothetically measure this correlation showed no linkage.

This further supports the previous paragraphs that describe intercultural competency development as an active process endemic to each culture one experiences (Bennett, 2008; Deardorff, 2009). Additionally, competency within one culture does not translate into universal competency, as each cultural experience requires an awareness of appropriateness and effectiveness (Spitzberg, 2000). This study also seems to support that the number of years spent in culturally different environments than one's own is not an indicator of competency in that, as a behavior, what is interculturally competent in one culture, may be incompetent or offensive in another (Spitzberg & Chagnon, 2004).

**Trust.** Trust has been shown to be a critical social construct in schools in relationships between leaders and teachers (Hoy & Tschannen-Moran, 1999; Tschannen-Moran, 2004) and between teachers and their students (Tschannen-Moran, 2012). Through multiple regression analyses, five predictor variables were included in this study to ascertain any influence on teacher trust in regard to levels of their principal's intercultural competency. While no

correlation between a principal's intercultural competency and trust were found, four predictor variables studied had a hypothetical influence on levels of trust among EARCOS educators.

These four variable factors are school division, school size, organizational structure and religious affiliations of the school. Each of these four variables either increased or decreased the mean scores above or below the mean scores found in the EARCOS region without these variable factors included. Previous research on the affects of several variables, including school facilities, has shown a correlation to increased student performance and community trust when facilities (Uline & Tschannen-Moran, 2008)

The findings of this study, that with every student added to schools trust increased, run counter to intuition and contrary to other research that describes trust flourishing more readily in smaller schools (Bryk & Schneider, 2003; Smith, Hoy & Sweetland, 2000). School size was the strongest hypothetical affect on trust in this study, with a .000024 % increase in trust shown for each child added to a school. It is likely that there is less variance in levels of trust in larger schools as statistically, as small changes in teacher trust in principals is less likely felt and influential among faculty in larger school than in schools with fewer students and teachers (Glass & Hopkins, 1996).

School size and school division, in this study, seem to be outliers from research that confirms smaller schools create more trusting environments. Research has also previously found that elementary schools tend to have higher levels of trust between principals, parents and teachers than middle and high schools (Adams & Christensen, 2000). Further study needs to be conducted to determine whether there are other covariates that may have influenced the impact of school size on trust. Some covariates may include that the large sized schools in the sample population may be religiously affiliated, enhancing, and falsely ascribing greater trust to school

size rather than religious affiliation. Another issue within this study is that there was an oversampling of small size, schools and an under sampling of large size schools responding to the survey. This could create a false positive if the larger schools sampled happened to have higher trust rates than the mean due to other factors, and overly enhanced the results that large schools have greater trust.

Other factors may include, for instance, that a crisis may have occurred in one of the few large school respondents that impacted the trust value within the faculty; regional trust values may also factor into these responses. Further studies are needed to separate out predictor variables to come to a more clear determination. While both large schools and small schools were overrepresented, one could argue that if we had a larger sampling of mid-sized schools, the outcome of school size may have been different. Continuing on this train of thought, it is not possible to determine in this study if the connection to organizational type (for-profit or non-profit) or school size was the theoretical influence over trust.

Similarly, the issue of school division, with high school teachers rating principal trust higher than middle and elementary faculty respectively, may be a result of a disproportionate response rate by school division and in proportion to the EARCOS region in general. This finding runs counter to other studies that indicate higher levels of trust among elementary schools (Bryk & Schneider, 2003). These data do not confirm that the nature of the relationship between high school teachers and their principals engenders greater trust than either middle school teachers or elementary faculty members; however, it is possible that from the schools sampled, high school principals had developed more adaptive and a more professional orientation among faculty (Tschannen-Moran, 2009).

It is difficult to generalize findings with only 43 full response sets. A larger study would help solidify understanding. Regional cultural influences or anomalies of the respondents may also have theoretically influenced this study's findings. Additional studies are needed to determine if school size, division, profit status, or religious affiliation are the dominant variable that affect trust in schools.

Another significant predictor variable, religious affiliation, had a positive affect on trust mean scores when factored into general mean scores of the region. Secular schools were found to have a mean score of  $m = 4.47$  ( $p < 0.05$ ), or .05 less than EARCOS mean scores without predictor variable included. Religious schools had a mean score of  $m = 5.00$ . This was the highest mean score when considering the predictor variables included in the study. Why religious school teachers reported higher rates of trust in their principals than those at secular schools can not be made through the findings of this study.

Faith may replace trust, in terms of two key necessary factors for trust to exist, namely vulnerability (Mishra, 1996) and risk (Rousseau, Sitkin, Burt & Camerer, 1998). Teachers at religious schools may conclude that their principal will do them no harm as a factor of their common faith, and not based on trust of the specific behaviors of their principal that he or she will do them no harm (Baier, 1994; Edmundson, 2004).

A common faith may take the place of specific leadership practices or behaviors. Research findings show greater levels of trust directed towards people of the same faith than those of other faiths (Johanssen-Stenmman, Mahmud & Martinsson, 2009). Proctor (2009) describes trust in moral authority of institutional religion and government, or secularly through the combined trust of nature and the sciences. Interestingly, trust is seen to diminish in authorities in countries with strong hierarchical religions (Porta, Lopez-De-Silane, Shleifer, &

Vishny, 1996). This would have implications for religious and secular international schools alike based on host-country conditions and the percentage of host-country teachers on staff.

An additional inference as to why teachers serving at religious schools reported higher trust levels in their principals is that the purpose of why people serve at specific schools may be more aligned by religious affiliation than educational ideology or administrative efficacy; often, people serving at religious schools do so to promote their own faith and be surrounded by others who share the same religious views and practices. Some people may serve at religious schools as part of a religious mission. The common factor of faith may create greater in-group status than any other factor that would add to or mitigate trust among faculty members for their principal (Tsui & O'Reilly, 1989).

### **Recommendations for Further Practice**

The findings and discussions regarding intercultural competency and trust in the EARCOS region provide possible implications for boards, school heads, principals, and faculty. While these suggested implications are not causal, they represent reasonable suggestions based on what has been presented, both through the review of literature and the findings of this study. Each school board, head, principal and faculty member would need to assess these implications in regard to each unique school's circumstances. These implications do, however, provide jumping off points for consideration at schools and for future studies in the region.

Greenholtz's (2000) suggests that international schools should not look at a persons resume as synonymous with a candidate's intercultural development. Instead, he suggests that schools utilize an inventory for intercultural competency for leadership candidates to complete should recruiting schools desire higher levels of intercultural competency among its leaders. In addition to hiring more interculturally competent leaders, schools could take this a step further

and look to develop intercultural competency among staff. They could do so through offering adult learning and professional development. Host country language classes and workshops designed to identify and understand the unique cultural aspects that are present in the faculty, regardless of minority or majority status, could increase schoolwide intercultural competency through culture and language specific learning. While maybe not necessary in the sense of being able to conduct business or live within the host country itself, learning about colleagues' cultures and languages would be a purposeful and effective way for a principal (or teacher) to more successfully navigate one's host country, communicate with colleagues, and understand other culture language, logic and thinking.

There are challenges for school leaders and faculty in regard to trust development. The four predictor variables with significant theoretical influence over trust in international schools in the EARCOS region are all beyond the scope of change a leader can affect in her or his school. School size, school division, profit status and religious affiliation are all aspects of the nature of a school that a principal or school leader cannot change. However, as trust engenders ethical and moral behavior (Baier, 1986; Hosmer, 1995), the lack of trust may engender less than ethical behavior. It thus becomes highly important for school leaders to find inroads into transcending potential variables that erode trust to mitigate or remove their effects. As the findings on schools size of this study do not match the mass of research that links smaller schools to greater trust, I will not consider how leaders may affect change as to do so would be to make referrals based on data that is uncorroborated. Additionally, the results for school division are unsubstantiated by findings in other research. However, there are a few considerations regarding heightened trust among high school faculty over middle school and elementary faculty.

As hierarchy often influences trust (Mishra, 1996), the greater prevalence of mediator roles, like department heads, found in high schools, may act as hierarchical buffers between high school teachers and principals who may have a diminished perception of hierarchy towards their principal. Another possible explanation for this finding may simply be that high school faculty are often left more on their own and perceive this form of supervision as more trustworthy than lower school principals who may more actively participate in faculty supervision. This speculation may be worthy of further research.

In regard to profit status and religious affiliation, there are avenues of discussion that may support work principals can perform to mitigate loss of trust in for-profit schools or augment trust in secular schools. From professional experience, leading in a for-profit school is not necessarily a liability for trust; nor is leading a non-profit school a guarantee of engendering trust in faculty. The underlying factors of each organization are what are important for discussion. With significantly reduced levels of trust below the regional average, proprietary schools face organizational issues like reduced efficacy and efficiency, lower citizenship behaviors, greater difficulty in implementing initiatives, and potentially higher turnover rates for both faculty and principals (Bryk & Schneider, 2002; Mishra & Mishra, 2012; Tschannen-Moran, 2004). This discussion holds significance for both teachers and principals in proprietary schools in the EARCos region. Proprietary schools may suffer from a perception or reality of lower organizational health, which has been shown to directly correlate to school trust (Smith, Hoy & Sweetland, 2000)

It is often reasonably assumed that the motivation of boards at for-profit schools is to create profit. Principals who lead these schools often have the uneasy task of sharing unwelcomed financial decisions that directly impact instruction to faculty. By providing clear

distinctions about decision-making roles at the school, in terms of teachers making a decision, providing feedback, or are simply being provided information are a few examples of how a school leader may work to mitigate negative effects of proprietary organizational structures.

Focusing on developing a strong culture of learning within each division a principal serves also will help mitigate the effects that for-profit schools may have on teacher trust. As teachers see a principals interests reside with supporting and improving everyone's teaching practice and the classroom experience for all students, faculty may be able to separate out larger school decisions beyond the principal's control and focus on the positive aspects of teaching and learning that qualify their day-to-day experiences.

Lastly, how principals represent board decisions, especially within for-profit schools, becomes a critical point to engendering greater trust. Without compromising ethics, betraying board decisions, or not accurately representing what the implications of a decision may mean to teachers, principals can limit potential fallout from proprietary decisions that place finances above student learning. The issue of transparency comes to the foreground as principals may be called to present issues that are clearly financially driven to faculty who care most about instructional value.

It behooves all EARCOS schools to look to increase, maintain, and promote intercultural competency and trust among its faculty, principals, students, and community members. As international schools continue to open worldwide, organizations responsible for their opening may want to consider profit status, host-country religious beliefs, and the purpose for a school's opening.

## **Recommendations for Further Study**

The study indicates that intercultural competency and trust appear to be parallel constructs rather than overlapping ones in that there were no correlations found. The data suggest significant areas and directions for future studies. First, completing a similar study with a much larger sample population would be prudent to assess if these initial findings hold, and that it also finds no correlation between trust and intercultural competency. There are complex factors that may have hypothetically influenced the findings of this study, that were well beyond the scope of this study of intercultural competency and trust in international school settings. For instance, future studies may include how the attributions of the theoretical affects of predictor variables on trust and intercultural competency change when specific control variables, like school size, religious affiliation, division, or organizational structure are isolated. For instance, only studying one school size, only religious schools, schools by division, or only proprietary schools. Identifying and studying connections between trust and intercultural competency and how they may be nested within other constructs like school climate and health (Bryk & Schneider, 2003) or organizational efficacy (Mitchell, Kensler & Tschannen-Moran, 2015) would also be worthwhile.

Null hypotheses of this study that principals who serve in the ethnic majority or are monolingual would not actively develop intrapersonal, interpersonal, and cognitive skills directly related to developing intercultural competency would also further this research. There is the potential that accumulated educational experiences by a leader in international school settings where one is a member of the dominant culture and language, could contribute to diminished intercultural sensitivity and competency. This research hypothesis assumes an investigation into surface culture, like race, ethnicity, age, experience or language (Milliken & Martens, 1996).

A longitudinal study that follows principals throughout their careers, and that measures intercultural competency development along with the make up of the schools within which they serve may be one possible direction to discover links that support and promote intercultural competency within international school settings. This would align with extensive research that describes intercultural competency on a continuum (Bennett, 1998; Deardorff, 2009).

Trust and intercultural competency may also be studied to inform and describe the nature of international schools as unique, semi-autonomous cultural spaces to counter Greenholz's (2000) assessment for the need to account for faculty competency as more than the sum of their travel history. International schools represent unique cultural environments that cannot be placed within normal parameters of study in regard to ethnicity, culture, and which in-group or out-group represent the majority or dominant culture. The work of Paxton (2007) may be a point of departure in that involuntary membership in a group, for instance race, can form bonds of trust with out-group people through common interests, like belonging to the same international school.

The influence of third culture norms, host country norms, and expatriate norms on the organizational structure of an international school may be described as semi-autonomous cultural spaces in that international schools: do not align to traditional definitions of a school; vary greatly from school to school; have differing in-group/out-group definitions than other multiethnic, multicultural, and multilingual organizations; may have different definitions and reason for existence than national public or private schools. Often, international schools recognize global mindedness, internationalism and respect for all cultures within their mission and vision statements without parameters for how they actualize them from day to day. How people behave, interact, develop trust, and intercultural competency may need to be studied and

described differently. A study of this nature would need to include a dyadic study (supervisor-subordinate) and the work team group level to discover deeper cultural ties of the specific institutions of international schools (Harrison, Price & Bell, 1998)

Increasing capacity of both intercultural competency and trust across the EARCOS region, and in international schools in general, is a common goal school leaders can all work towards.

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## Appendix

### A. Global Perspective Inventory (GPI)

Please rate your level of agreement with each statement.

	Strongly Agree (5)	Agree (4)	Neither Agree or Disagree (3)	Disagree (2)	Strongly Disagree (1)
When I notice cultural differences, my culture tends to have the better approach. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a definite purpose in my life. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can explain my personal values to people who are different from me. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most of my friends are from my own ethnic background. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think of my life in terms of giving back to society. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Some people have a culture and others do not. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In different settings what is right and wrong is simple to determine. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am informed of current	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

issues that impact international relations. (8)					
I know who I am as a person. (9)	○	○	○	○	○
I feel threatened around people from backgrounds different from my own. (10)	○	○	○	○	○
I often get out of my comfort zone to better understand myself. (11)	○	○	○	○	○
I am willing to defend my own views when they differ from others. (12)	○	○	○	○	○
I understand the reasons and causes of conflict among nations of different cultures. (13)	○	○	○	○	○
I work for the rights of others. (14)	○	○	○	○	○
I see myself as a global citizen. (15)	○	○	○	○	○
I take into account different perspectives before drawing conclusions about the world around me. (16)	○	○	○	○	○

I understand how various cultures of this world interact socially. (17)	<input type="radio"/>				
I put my beliefs into action by standing up for my principles. (18)	<input type="radio"/>				
I consider different cultural perspectives when evaluating global problems. (19)	<input type="radio"/>				
I rely primarily on authorities to determine what is true in the world. (20)	<input type="radio"/>				
I know how to analyze the basic characteristics of a culture. (21)	<input type="radio"/>				
I am sensitive to those who are discriminated against. (22)	<input type="radio"/>				
I do not feel threatened emotionally when presented with multiple perspectives. (23)	<input type="radio"/>				
I frequently interact with people from a race/ethnic group different	<input type="radio"/>				

from my own. (24)	<input type="radio"/>				
I am accepting of people with different religious and spiritual traditions. (25)	<input type="radio"/>				
I put the needs of others above my own personal wants. (26)	<input type="radio"/>				
I can discuss cultural differences from an informed perspective. (27)	<input type="radio"/>				
I am developing a meaningful philosophy of life. (28)	<input type="radio"/>				
I intentionally involve people from many cultural backgrounds in my life. (29)	<input type="radio"/>				
I rarely question what I have been taught about the world around me. (30)	<input type="radio"/>				
I enjoy when my friends from other cultures teach me about our cultural differences. (31)	<input type="radio"/>				
I consciously behave in	<input type="radio"/>				

terms of making a difference. (32)					
I am open to people who strive to live lives very different from my own life style. (33)	○	○	○	○	○
Volunteering is not an important priority in my life. (34)	○	○	○	○	○
I frequently interact with people from a country different from my own. (35)	○	○	○	○	○

Items 16 and 19 were forced into factor based on conceptual underpinnings of scale and not included in the factor analysis

Items 1, 4, 6, 7, 20, 30, and 34 are reverse coded

#### B. GPI Principal Demographics

Question	Page 1: Professional Data	
1	Number of years as an educator	Pop up with 1-60 listed
2	What is the highest level of education you have completed?	Choices: Associates degree, Bachelors degree, masters degree, doctoral degree
Page 2: Personal Data		
3	What is your gender?	Choices: Female, male, transgender

4	Is your mother tongue the same as the primary language of the school?	Check Box: Yes, No, Not Sure
5	How many languages, other than your mother tongue are you fluent in?	Pop up 1-12 listed
6	Is your ethnicity the same as the majority of the professional faculty of the school?	Check Box: Yes, No, Not Sure
Page 3: Cultural experience data		
7	How many years have you spent living or working in a culture other than your own?	Pop up with 1-60 listed
8	Number of times you have lived for 6 months or longer outside your own culture.	Pop up with 1-60 listed

C. Permission to use GPI and acceptance of word changes in the GPI

10/9/2015 Cebu International School Mail - Permission to use the GPI



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Permission to use the GPI

**Reason, Robert D [SOE]** <[rreason@iastate.edu](mailto:rreason@iastate.edu)> To: MHSPrincipal

<[mhsprincipal@cis.edu.ph](mailto:mhsprincipal@cis.edu.ph)>

Ted,

Ted Mockrish <[mhsprincipal@cis.edu.ph](mailto:mhsprincipal@cis.edu.ph)>

Fri, Oct 9, 2015 at 6:19 AM

I'm writing to provide you my explicit and formal permission to use the items from the Global Perspective Inventory (GPI) as part of your dissertation research. I understand you may edit the items slightly, if necessary, to meet the needs of your population of professional education leaders. I also understand that you will use a different set of demographic questions than the items normally used with the GPI. Your use of the GPI and all of these changes/edits are acceptable to me as the director of the GPI project at Iowa State.

I wish you the best in your research and look forward to collaborating in any way that I can. I also look forward to seeing your research when it is completed.

All my best,

Robert D. Reason Associate Director, Research and Admin School of Education Iowa State University 515-294-6216

1/16/2016 Gmail - Questions about the GPI from Ted Mockrish



Theodore Mockrish <scribe247@gmail.com>

Questions about the GPI from Ted Mockrish

3 messages

**Theodore Mockrish** <scribe247@gmail.com> Sun, Nov 8, 2015 at 1:58 PM To: Robert Reason <rreason@iastate.edu>

Hi Bob,

I have 3 questions regarding the GPI I want to run by you # 1-2 are about validity of two questions and #3 about wording as I am using a different population.

1. Cognitive Knowing - The Cronbach alpha (.657) is lower than the standard criterion of .70. I will examine the Cronbach alpha again with my pilot data. If the Cronbach for the pilot data does not reach the criterion, I will follow up with some diagnostics by deleting each item one-by-one. This may reveal a particular item that is problematic. Once that item is deleted, the remaining items may cluster nicely as a scale with a Cronbach alpha that reaches the criterion.

Is that acceptable within the guidelines of changes granted to me?

2. For the scale Interpersonal Identity, one of the items has a relatively low factor loading: "I am developing a meaningful philosophy of life" factor loading = .368. The standard factor loading criterion for inclusion on a scale is .40. I will re-examine this factor loading with my pilot data. If the item does not tech the criterion of .40, I would like to delete it.

Is that acceptable within the guidelines of changes granted to me?

3. For the Interpersonal Social Interaction scale, there are two items I would like to revise and re-examining in the pilot study. These items are: "I frequently interact with *students* with a

race/ethnic group different from my own," and "I frequently interact with *students* from a different country from my own." I am seeking links between principals' intercultural competence and the level of trust they develop with teachers. I would like to change these two questions to address principals' experiences with diversity among teachers. For example: "I frequently interact with *teachers/people* with a race/ethnic group different from my own," and "I frequently interact with *teachers/people* from a different country from my own." I would then need to examine the Cronbach alpha coefficient of the scale with these two items added and examine the factor loadings of the two new items to determine whether the items are a good fit for the scale. Is that acceptable within the guidelines of changes granted to me?

Finally-would it be possible to share a word or pdf version of the GPI? It will be much easier to load into my appendix of my dissertation.

Thanks for your time and consideration Bob! Ted Mockrish

**Reason, Robert D [SOE]** <rreason@iastate.edu> Tue, Nov 10, 2015 at 7:42 PM To: Theodore Mockrish <scribe247@gmail.com>

Ted,

We've been working on # 1 and 2 as well. We just had a meeting with some other researchers at the Association for the Study of Higher Education meeting over the weekend to discuss it. I am not certain what we will do with this in the future, but am completely comfortable with what you propose.

I am also comfortable with the proposed changes you've suggested in #3.

Finally, we administer the GPI via Qualtrics, so I'm not certain we have a complete, clean word or pdf version. Let me check with one my students who did the Qualtrics work...he may have created a good Word file, too. Bob

#### D. The Comprehensive Teacher Trust Scale: Teacher Trust in Principals Subscale (CTTS)

##### Faculty Survey

Directions: This questionnaire is designed to help us gain a better understanding of the quality of relationships in schools. Your answers are confidential.

Please indicate the extent that you agree or disagree with each of the statements about your school, marking in the columns on the right, ranging from (1) Strongly Disagree to (6) Strongly Agree, filling the bubbles completely.

1    2    3    4    5    6

1. The principal in this school typically acts in the best interests of the teachers.

1    2    3    4    5    6

2. Teachers in this school can rely on the principal.

1    2    3    4    5    6

3. The principal doesn't tell teachers what is really going on.

1    2    3    4    5    6

4. The teachers in this school have faith in the integrity of the principal.

1    2    3    4    5    6

5. Teachers in this school trust the principal.

1    2    3    4    5    6

6. The principal of this school does not show concern for teachers.

1    2    3    4    5    6

7. The teachers in this school are suspicious of most of the principal's actions.

1 2 3 4 5 6

8. The principal in this school is competent in  
doing his or her job.
- □ □ □ □ □

E. Permission to use the CTTS

**Megan Tschannen-Moran** <mxtsch@wm.edu> To: Theodore Mockrish

<scribe247@gmail.com> Cc: "Sutherland, Ian E." <isutherl@odu.edu>

Ted,

Mon, Sep 1, 2014 at 9:20 AM

I am glad to make your acquaintance, even if virtually. Your study sounds like it will be quite interesting, as you will be extending the research on Trust in Schools to a new context where it is both challenging and very much needed. I would recommend that you see if you can get a hold of a new edited book that came out this spring called Trust in Schools, published by Springer. It is a bit pricey to buy but perhaps you can get it through your library. That really contains the most up-to-date research on trust and should give you a good basis to work from. Also, the second edition of my book Trust Matters finally came out this spring. It took me so long because there really is some new and, I think, interesting new research reviewed in it that were not available in the first edition, particularly regarding teacher-student trust, and parents trust in schools.

10/12/2015 Gmail - Introduction

Let me know if I can be of assistance to you as you develop and conduct your study.

All the best,

Megan

#### F. Pilot Superintendent's Invitation Email

**To Daniel Jubert-Head of School, Shanghai Community International School      Date:**  
**April 12, 2016**

As you know, I am a doctoral candidate in the Global Leadership Doctoral Program at Lehigh University. I invite you to participate in my dissertation pilot to test my survey instruments examining a principal's intercultural competency and the climate of trust developed with her or his teaching staff. This survey is being conducted with the full support of Dr. Krajczar and EARCOS.

The study will utilize the Global Perspective Inventory (GPI) for principal respondent and a component of the Omnibus Trust Scale, The Comprehensive Teacher Trust Scale (CTTS) for teachers. Each survey has been found to be highly reliable and valid in US universities and public school settings respectively. This is the first time the combination of the two surveys will be used together in any forum.

I am requesting your assistance in helping my research by consenting for your faculty and principals to take this pilot survey on your campus. Please respond to this email indicating your consent for your staff to participate in this pilot survey. This will serve as written consent for your faculty and principals to participate in this study.

The purpose of the pilot is to assess the clarity of the two questionnaires, and the clarity of the procedures in the data collection process prior to sending this to the entire EARCOS population. I am asking for three building principals, and their corresponding faculty, including learning support teachers, teacher librarians and media specialists, counselors and curriculum coordinators, to participate.

I am also asking for you to distribute the second email you will receive labeled for Robert Vandereyken's campus to his faculty on the Hangzhou campus after he has consented to allow his faculty to participate; he will distribute this survey to his three building principals and faculty. This is to test schools with multiple campuses to ensure that data collection aggregates each school's principal and respective faculty together. All of the information will remain confidential and anonymous as per ethical research design practices. I am CC'ing Robert in this correspondence as well.

The benefits for members of your school, as an EARCOS member school include an elevation of the importance of intercultural competence and the development of trust in EARCOS schools, the potential for improved recruiting practices in EARCOS, and the potential for developing principal training programs that highlight the significance of intercultural competency.

The only risk posed to you or your faculty is if the data for this survey is breached illegally, as I will not share this information voluntarily. The risk to your faculty is minimal.

It is unlawful for me to share your identity with anyone. The coding system used for this survey creates anonymity for respondents. I am the sole holder of the key that aligns codes with schools. While there is a chance that data may be breached, I will make every effort to eliminate this possibility including storing the data and the key separately.

Your faculty will consent to this survey by simply completing and submitting the survey after reading the request for participation, consent form and instructions. They may opt out of the survey at any time by simply stopping the survey with no effect to any relationship with Lehigh University or the researcher.

If you feel there is an issue or wish further information, you may contact my dissertation chair, Dr. George White at [gpw1@lehigh.edu](mailto:gpw1@lehigh.edu).

You may report problems that may result from your participation or direct questions in regard to your rights as a subject in this study to Naomi Coll of Lehigh University's Office of Research Integrity at (610) 758-3021 or [inors@lehigh.edu](mailto:inors@lehigh.edu). All reports or correspondence will be kept confidential.

Thank you for your time,

Theodore J Mockrish  
Middle & High School Principal  
Cebu International School  
Doctoral Candidate-Lehigh University Global Leadership Doctoral Program

CC: Cr. George White-Dissertation Committee Chair-Lehigh University. Gpw1@lehigh.edu

## G. Pilot Teacher and Principal Introductory Letter

Dear (Superintendent's name),

Thank you for supporting this study within the EARCOS region. As you have agreed to have your faculty participate in this survey, please forward this email to your entire faculty, including principals and teachers. Your participation is greatly appreciated.

**Dear Principals and Teachers,**

**Thank you for participating in this pilot survey!**

My name is Ted Mockrish. I am the Middle and High School Principal at Cebu International School and a doctoral candidate at Lehigh University in Bethlehem, Pennsylvania. I am conducting a study for my dissertation the Global Leadership program and appreciate your support by answering the following survey.

The purpose of this study is to advance the theoretical understanding of how intercultural competence may affect levels of trust between principals and teachers in the EARCOS region. While you will receive no specific benefit from participating in this survey, it is my hope that the data and analysis will support the EARCOS region, including its students, teachers, principals and superintendents, by drawing attention to the importance of intercultural competency in our school leaders, the potential for more focused recruiting practices, and the potential for improved principal training programs.

Your feedback will help to ensure the survey is clear, the procedures are clear and the inform me of the time it will take to complete the survey. I will use your anonymous responses in the full EARCOS study if there are no significant changes to the survey or procedures resulting from your feedback.

The procedures for this survey are simple. You will be asked three initial questions that will align your anonymous responses with your role and your building division. For principals, some demographic information questions will also help align the analysis of this study further. The total amount of time to take this survey will be approximately 10 minutes for teachers and 30 minutes for principals. Each respondent will be asked between 11 (teachers) and 46 questions (principals), including the initial three sorting questions. Most questions of each survey are Likert-like responses, for instance: 1=Strongly Disagree or Rarely to 5=Strongly Agree. The Likert-type responses will vary with each section so please review the response selections carefully at the beginning of each section.

Mark one answer for each question unless notified that you may do otherwise. Please complete all responses. You may review your completed answers by using the "BACK" and "FORWARD" buttons within the survey. Please do not use your browser's back or forward buttons as this may erase previously answered questions.

By completing this survey you are consenting to the use of submitted information for the dissertation study it is designed for and further research in any additional studies by the researcher. You may opt out of this survey at any time by simply closing the window/tab. All answers are anonymous and no respondents will be able to be identified.

As an incentive, I will provide the first school (elementary, middle or high school) at SCIS whose principal and teachers meet the minimum required threshold of 1 principal to 25% of his or her teaching faculty with a \$50 gift certificate from Amazon.com to the superintendent to give to one survey respondent.

Please note your start and end times of the main survey. After the main survey you will be given a link to a short feedback survey to provide critical feedback about the clarity of the survey, the procedures, and the time it took to take the main survey, not including the feedback survey.

The risk to you is minimal as your responses are anonymous. It is unlawful for me to share your identity with anyone. The only identification of survey responses possible would be to your school through matching unique codes with respondent schools. This coding system used for this survey creates anonymity for respondents. I am the sole holder of the key that aligns codes with schools. While there is a chance that data may be breached, I will make every effort to eliminate this possibility including storing the data and the key separately. The minimal risk posed to you is if the data for this survey is breached illegally, as I will not share this information voluntarily. If you feel there is an issue or wish further information, you may contact my dissertation chair, Dr. George White at [gpw1@lehigh.edu](mailto:gpw1@lehigh.edu).

You may report problems that may result from your participation or direct questions in regard to your rights as a subject in this study to Naomi Coll of Lehigh University's Office of Research Integrity at (610) 758-3021 or [inors@lehigh.edu](mailto:inors@lehigh.edu). All reports or correspondence will be kept confidential.

Thank you for your time. It is my sincere hope that this study will help support educational growth and development within the international school community, and particularly within the EARCOS region.

Ted Mockrish  
Lehigh University Global Leadership Doctoral Candidate

To begin the survey, please click the BEGIN link below!

BEGIN: Survey Link here

## H. Pilot Follow-Up Questionnaire.

This questionnaire is a follow up to the Pilot Survey you have just completed to support my research within the EARCOS region studying the intercultural competence of school principals and teacher trust in EARCOS schools. The questionnaire is about your survey experience and not a follow up for information about intercultural competence or trust, nor does it require further demographic information. Choose the appropriate response for each question.

The instructions to the survey were clear

Agree      Somewhat Agree      Somewhat Disagree      Disagree

Are there any specific changes you would recommend Fill Box

The survey link and buttons worked efficiently.

Agree      Somewhat Agree      Somewhat Disagree      Disagree

Comment Fill Box

The demographic questions were clear.

Agree      Somewhat Agree      Somewhat Disagree      Disagree

Comment Fill Box

The survey questions were clear.

Agree      Somewhat Agree      Somewhat Disagree      Disagree

Were there any questions you felt need revision?—If so please list the question and offer recommended changes Box

I felt comfortable answering the demographic questions.

Agree      Somewhat Agree      Somewhat Disagree      Disagree

If you disagree please provide suggestions to address your concern(s) Fill Box

How long did it take to complete the initial survey (not this follow up questionnaire).

1-10 minutes      11-20 minutes      21-30 minutes      31-40 minutes

Comment Fill Box

I. Letter to Dr. Krajczar-EARCOS Executive Director

**To: Dr. Dick Krajczar-** Executive Director of EARCOS  
**Fr: Theodore J Mockrish-** Lehigh University Doctoral Student  
**Re:** EARCOS Support for Dissertation Data Collection

**February 11, 2016**

**Dear Dr. Krajczar,**

My name is Ted Mockrish. I am the principal at Cebu International School and a doctoral student in the Global Leadership Doctoral Program at Lehigh University. My Dissertation Chair is Dr. George White. My committee members include Associate Professor Dr. Thomas Hammond, and Professor Dr. Sothy Eng, both at Lehigh University, and Dr. Ian Sutherland, Associate Professor at Old Dominion University. You and I have spoken about EARCOS support of my study, most recently at the 2015 EARCOS Administrator Conference in Bangkok.

My study seeks to discover potential links between a principal's intercultural competence and the level of trust developed among her or his faculty. The study will utilize the Global Perspective Inventory (GPI) for principal respondents and a component of The Comprehensive Teacher Trust Scale (CTTS). Each survey has been found to be highly reliable within their designed populations, United States universities and United States public schools respectively. This is the first time the two surveys will be used together in the international school forum.

I believe this study will provide EARCOS schools with important information on the level of intercultural competency in EARCOS principals, the level of generalized trust held by EARCOS teachers for their principals, and factors that correlate to these levels of intercultural competency and trust within the EARCOS region.

I am requesting your assistance in helping disseminate an online survey to all EARCOS school heads. The request will come in the form of a letter to all school heads asking for them to encourage their building principals and teachers from each respective building to complete the online survey. The introduction letter contains instructions and the survey link for the study. I am attaching the request letter and the survey instructions and welcome letter within this email for you to see.

I would greatly appreciate it if you would write a letter of support that I can include with my introductory letter to superintendents. I would also like to request from EARCOS a list of all school heads' emails so that I may load these into a blind carbon copy (BCC) email to all heads at once.

I am eager to disseminate my survey by the middle of April and collect data for one month's time. I will analyze the data and prepare my findings and hope to defend my dissertation in July. Of course I will supply each participating school with a summary report along with the study's findings. I will also happily present my findings at the following EARCOS Administrators or Teachers Conference should you wish me to.

Thank you for your time. I look forward to hearing from you at your earliest convenience as to what next steps I may take to further this study within the EARCOS region.

Warmly,

Theodore J Mockrish  
Middle & High School Principal  
Cebu International School  
Doctoral Student-Lehigh University Global Leadership Doctoral Program

J. Invitation and Informed Consent to Participate in Survey to EARCOS Superintendents

**To: All EARCOS Heads of School  
2, 2016**

**May**

My name is Ted Mockrish. I am the Middle and High School Principal at Cebu International School; I am also a doctoral candidate in the Global Leadership Doctoral Program at Lehigh University. I would like to invite your school to participate in my dissertation study examining a principal's intercultural competency and the climate of trust developed with her or his teaching staff.

The purpose of this study is to advance the theoretical understanding of how intercultural competence may affect levels of trust between principals and teachers in the EARCOS region. Intercultural competency is not merely a measure of the number of experiences outside of one's culture but an individual's ability to navigate and interact with people outside of one's culture. Trust is an extremely important quality for international schools as it creates greater efficacy and community.

While there is no individual benefit for participants, this work will provide important insight into the nature of effective leadership in international schools as it relates to intercultural competence and trust. The benefit is for our schools, students, parents, teachers, principals and heads of school. EARCOS supports this research project as well. I am attaching Dr. Krajczar's letter of support in this email.

I would like to request your assistance to disseminate my survey. In addition to Dr. Krajczar's letter of support, I am attaching a copy of the introduction letter and instructions form for your review. The introductory letter and survey instructions explains to your staff the purpose of the study, request voluntary consent from potential participants, and will provide a link to the online survey for the data collection. The participants I am targeting include principals and teaching faculty, including learning support teachers, teacher librarians and media specialists, counselors and curriculum coordinators.

The survey is anonymous and will not collect any personally identifiable information. The results will be reported in the aggregate and as such schools will not be identifiable either. Participants may opt out of the survey at any time by simply ending their participation. **Please reply to me with your consent if you wish to support my research.** This return email will serve as your consent to allow your faculty to participate in this study. **I will then mail the introduction letter and instructions with your school's unique, active URL for you to distribute to your faculty and principals.**

The study will utilize the Global Perspective Inventory (GPI) for principal respondents and a component of the Omnibus Trust Scale, The Comprehensive Teacher Trust Scale (CTTS). Each survey has been found to be highly reliable and valid in US universities and public school settings respectively. To my knowledge, this is the first time the combination of the two surveys will be used together with any population. A sample of the rationale, instructions for principals and teachers, and purpose that your staff will receive are also attached to this email for you to see.

As an incentive, I will provide each school that completes the minimum number of respondents (1 principal for a minimum of 25% of his/her teachers) with a general report. I plan to share the study findings with the greater EARCOS community through future leadership and teacher conferences as well. I will also provide the first 4 school divisions whose principals and

teachers meet the minimum required threshold of 1 principal to 25% of his or her teaching faculty with a \$50 gift certificate from Amazon.com to the head of school to give to one faculty member.

No identification of individuals or schools will be recorded in the data. Your participation is strictly voluntary, as is the participation of each of your teachers and principals. Neither your school nor any individual teacher or principal will be identified anywhere in the survey. School and personal information is not asked for or allowed to be collected in the actual research survey. The only risk to you and your teachers is the potential breach of confidentiality, which I am taking specific steps to avoid.

Each school has a unique URL code that only I know and that will be kept secure and stored separately from the collected data. Strict confidentiality will be maintained throughout this study in accordance with the *Federal Policy for the Protection of Human Subjects* (Federal Register, 1991) and the *Ethical Principles in the Conduct of Research with Human Participants* (APA, 1982).

It is unlawful for me to share respondents' identities with anyone. The coding system used for this survey creates anonymity for respondents. I am the sole holder of the key that aligns codes with schools. While there is a chance that data may be breached, I will make every effort to eliminate this possibility including storing the data and the key separately. If you feel there is an issue or wish further information, you may contact my dissertation chair, Dr. George White at [gpw1@lehigh.edu](mailto:gpw1@lehigh.edu).

You may report problems that may result from your participation or direct questions in regard to your rights as a subject in this study to Naomi Coll of Lehigh University's Office of Research Integrity at (610) 758-3021 or [inors@lehigh.edu](mailto:inors@lehigh.edu). All reports or correspondence will be kept confidential.

Participants will need 2-10 minutes to complete the survey and accompanying demographic information. Participants may opt out at any time by simply stopping the survey.

Thank you for your time. I hope you can take the brief time needed to complete this survey to further this study within the EARCOS region.

Warmly,

Theodore J Mockrish  
Middle & High School Principal  
Cebu International School  
Doctoral Candidate-Lehigh University  
Global Leadership Doctoral Program

K. EARCOS Letter of Support for the Study from Dr. Krajczar's

Dear EARCOS Colleagues:

This is a letter of support for a dissertation study being conducted within the EARCOS region. Theodore (Ted) Mockrish is the Middle and High School Principal of Cebu International School in Cebu, Philippines. Mr. Mockrish is also a doctoral candidate at Lehigh University under the advisement of Dr. George White. Ted is conducting a study that will examine the relationship between principals' intercultural competency and teacher trust in leaders.

EARCOS Head of Schools will first be asked to give approval to having the faculty and principals at their respective schools to participate. Once permission has been granted a follow email to the superintendent that contains the principal and teacher request for participation, the instructions for the survey, and the link for the survey will be sent.

As with *any* dissertation study, or any study involving human subject, The Human Subjects Review Board of the university, in this case Lehigh University, has approved the procedures designed to insure the confidentiality of all participants. As the executive director of EARCOS, I, and the EARCOS staff work hard to support research within the EARCOS region, as it enhances the work that we do as a regional council.

Mr. Mockrish will share his study's findings with all participating schools in the EARCOS region once he has completed the work. Thank you for supporting one of your colleagues and administrators. If you have any questions about the study, you may also contact Mr. Mockrish's dissertation chair, Dr. George White of Lehigh University, at [gpw1@lehigh.edu](mailto:gpw1@lehigh.edu).

Thank you for your support.

## L. Confirmation to Participate in the Survey and Instructions (all)

Dear (Superintendent's name),

Thank you for supporting this study within the EARCOS region. Thank you agreeing to have your faculty participate in this survey. Please forward this email to your entire faculty, including principals and teachers. Your participation is greatly appreciated.

**Dear Principals and Teachers,**

**Thank you for participating in this survey!**

My name is Ted Mockrish. I am an EARCOS region secondary principal and a doctoral student at Lehigh University. I am conducting a study within the EARCOS region for my dissertation research. The purpose of this study is to advance the theoretical understanding of how intercultural competence may affect levels of trust between principals and teachers in the EARCOS region. It is my hope that the data and analysis will support the advancement of intercultural competency and trust in the region, potential support for hiring practices the EARCOS region, and the development of principal training programs that include a greater focus on intercultural competency and trust development.

The procedures for this survey are simple. You will be asked three initial questions that will align your anonymous responses with your building division. For principals, some demographic information questions will also help align the analysis of this study further. The total amount of time to take this survey will be approximately 5 minutes for teachers and 10 minutes for principals. Each respondent will be asked between 11 (teachers) and 46 questions (principals), including the initial three sorting questions. Most questions of each survey are Likert-like responses, for instance: 1=Strongly Disagree or Rarely to 5=Strongly Agree. The Likert-type responses will vary with each section so please review the response selections carefully at the beginning of each section.

Mark one answer for each question unless notified that you may do otherwise. Please complete all responses. You may review your completed answers by using the “<<<<” (BACK) and “>>>>” (FORWARD) buttons within the survey. Please do not use your browser’s back or forward buttons as this may erase previously answered questions.

By completing this survey you are consenting to the use of submitted information for the dissertation study it is designed for and further research in any additional studies by the researcher. You may opt out of this survey at any time by simply closing the window/tab with no effect to any relationship with Lehigh University or the researcher.

As an incentive, I will provide each school that completes the minimum number of respondents (1 principal for a minimum of 25% of his/her teachers) with a general report. I plan to share the study findings with the greater EARCOS community through future leadership and teacher conferences as well. I will also provide the first 4 schools whose principals and teachers meet the minimum required threshold of 1 principal to 25% of his or her teaching faculty with a \$50 gift certificate from Amazon.com to the superintendent to give to one survey respondent.

All answers are anonymous and no respondents will be able to be identified. It is unlawful for me to share your identity with anyone. No individual identities are collected in this

survey. The only identity that may be discovered is that of your school. The coding system used for this survey creates anonymity for participating schools as well. I am the sole holder of the key that aligns codes with schools. While there is a chance that data may be breached, I will make every effort to eliminate this possibility including storing the data and the key separately. The minimal risk posed to you is if the data for this survey is breached illegally, as I will not share this information voluntarily. If you feel there is an issue or wish further information, you may contact my dissertation chair, Dr. George White at [gpw1@lehigh.edu](mailto:gpw1@lehigh.edu).

You may report problems that may result from your participation or direct questions in regard to your rights as a subject in this study to Naomi Coll of Lehigh University's Office of Research Integrity at (610) 758-3021 or [inors@lehigh.edu](mailto:inors@lehigh.edu). All reports or correspondence will be kept confidential.

Thank you for your time. It is my sincere hope that this study will help support educational growth and development within the international school community, and particularly within the EARCOS region.

Ted Mockrish  
Lehigh University Global Leadership Doctoral Candidate

Thank you for your support!

click the survey link below!

BEGIN: Survey Link here

M. Follow up letter for participation

**To (EARCOS Heads of School)** **Date**

I understand how busy you are at this time of year and truly appreciate your attention to this email. This is a follow up communication requesting your approval for your principals and teachers to participate in a study endorsed by EARCOS. My name is Ted Mockrish. I am the Middle and High School Principal of Cebu International School. I am also a doctoral student at Lehigh University under the advisement of Dr. George White I am conducting a study that will examine the relationship between principal intercultural competencies and trust developed in their schools, primarily among faculty.

Your role would be to forward an instructional email to your faculty that includes a link to an electronic survey, and to encourage your teachers' and principals' voluntary participation. Teachers' participation will require approximately ten minutes or less to complete the survey instrument. Principal's participation will take approximately 30-40 minutes.

To indicate your willingness to allow *School Name* teachers to participate in the study please reply to this email. In your email please clearly state your consent for your school to participate. Your positive response via email will serve as your consent for me to send you the instructional email with a link to the electronic survey instrument. Please retain this letter and the initial letter below for your future reference.

If you have any questions please do not hesitate to email me.

Thank you very much for your support,

Theodore J Mockrish  
Middle & High School Principal  
Cebu International School  
Doctoral Candidate-  
Lehigh University Global Leadership Doctoral Program

Appendix N: Correspondence with Dr. Krajczar regarding EARCOS demographic information

7/31/2016 Cebu International School Mail - Re: Dissertation information for Ted Mockrish ATT VER



Ted Mockrish <tmockrish@cis.edu.ph>

**Re: Dissertation information for Ted Mockrish ATT VER**

15 messages

**Dick Krajczar** <dkrajczar@earcos.org> Mon, Jul 6, 2015 at 3:58 AM To: Ted Mockrish <esprincipal@cis.edu.ph> Cc: Neil Walton <mhs@cis.edu.ph>, Ver Castro <vercastro@earcos.org>

Hello Ted.. I -will have Mr Ver try to get you some answers.. hold on..Go Lehigh! DickK On Jul 2, 2015, at 5:40 PM, Ted Mockrish <esprincipal@cis.edu.ph> wrote:

Hello from Cebu!

My name is Ted Mockrish. I am the elementary principal at Cebu International School. I am also a doctoral student at Lehigh University's Global Leadership Program.

I am working on my dissertation and would like some demographic information, specifically the number of principals and teachers in EARCOS member and associate member schools.

Would you be able to furnish me with this data to include in my study?

Thank you in advance. I hope to be able to collaborate with EARCOS further to develop this study.

Ted

---

Thanks Dick! I will be writing to you formally in the next month to request EARCOS support for disseminating an online survey to EARCOS principals and teachers. My dissertation study seeks to find a link, if any, for a principal's intercultural competence and the level of trust developed among faculty.

I believe there is not enough research in the international school population and hope to contribute to the growing group of leaders (many coming from Lehigh!) who are building more and understanding through direct research.

Thanks so much and talk to you soon! Ted

Mon, Jul 6, 2015 at 6:59 AM

[Quoted text hidden]

**Ver Castro** <vercastro@earcos.org> Mon, Jul 6, 2015 at 10:40 AM To: Dick Krajczar <dkrajczar@earcos.org> Cc: Ted Mockrish <esprincipal@cis.edu.ph>, Neil Walton <mhs@cis.edu.ph>

Dear Sir, Greetings, Here is the data requested.

Faculty and Principals : 14,500

School Member: Reg 146 Affiliate School Member: 3 Associate Institution Member(Company, University, and Publisher) : 184

Regards, Ver

On Jul 6, 2015, at 3:58 AM, Dick Krajczar <dkrajczar@earcos.org> wrote: [Quoted text hidden]

Best Regards

[Ver Castro](#)

I.T & Membership Coordinator

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**CIS** <esprincipal@cis.edu.ph>

Mon, Jul 6, 2015 at 11:34 AM

7/31/2016 Cebu International School Mail - Re: Dissertation information for Ted Mockrish ATT VER

To: Ver Castro <vercastro@earcos.org> Cc: Dick Krajczar <dkrajczar@earcos.org>, Neil Walton <mhs@cis.edu.ph>

Thank you so much Mr. Ver!

Is there a way to know how many of these educators are principals and how many are teachers, that would include any non-supervisory people like curriculum coordinators, student support educators, librarians, or other teachers that are not principals?

If not, no worries. And thank you again for your speedy reply Dr. K and Mr. Ver!

Ted Mockrish

Sent from my iPad

Dear Sir, Here is the breakdown

Faculty : 14, 180 HS Principal: 119 MS Principal: 92 ES Principal: 116 Others: 1430

Regards, Ver [Quoted text hidden]

**Ted Mockrish** <esprincipal@cis.edu.ph> To: Ver Castro <vercastro@earcos.org> Cc: Dick Krajczar <dkrajczar@earcos.org>, Neil Walton <mhs@cis.edu.ph>

WOW! Thanks so much Mr. Ver! Greatly appreciated.

Have a lovely day! Ted [Quoted text hidden]

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Mon, Jul 6, 2015 at 3:56 PM

7/31/2016 Cebu International School Mail - Re: Dissertation information for Ted Mockrish ATT VER

**Dick Krajczar** <dkrajczar@earcos.org> Mon, Jul 6, 2015 at 6:42 PM To: CIS <esprincipal@cis.edu.ph> Cc: Neil Walton <mhs@cis.edu.ph>, Ver Castro <vercastro@earcos.org>

Good luck Neil.here to help..dk

**Dick Krajczar** <dkrajczar@earcos.org> Mon, Jul 6, 2015 at 7:02 PM To: Ver Castro <vercastro@earcos.org> Cc: Ted Mockrish <esprincipal@cis.edu.ph>, Neil Walton <mhs@cis.edu.ph>

Hi Ver..I think he needs Principal numbers.. Let's wait to hear from him..thanks for answering..  
DrK [Quoted text hidden]

**Dick Krajczar** <dkrajczar@earcos.org> Mon, Jul 6, 2015 at 9:52 PM To: CIS <esprincipal@cis.edu.ph> Cc: Ver Castro <vercastro@earcos.org>, Neil Walton <mhs@cis.edu.ph>

Hi Ted.. he can get you principal info.. All principals or by section.. Elm, MS. HS?? Dk [Quoted text hidden]

**Dick Krajczar** <dkrajczar@earcos.org> To: CIS <esprincipal@cis.edu.ph> Cc: Ver Castro <vercastro@earcos.org>

Tue, Jul 7, 2015 at 8:54 PM

Well done.. Glad we could help.. DickK On Jul 6, 2015, at 8:42 AM, CIS <esprincipal@cis.edu.ph> wrote:

Hi again Ver sent me teacher, other educator and principal numbers by building. I already input the info into my dissertation. Citation reads Krajczar, R. (2015)!!! Thank you both for your support! Talk to you soon Ted

Theodore Mockrish

Elementary Principal Cebu International School [Quoted text hidden]

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**Dick Krajczar** <dkrajczar@earcos.org>

Tue, Jul 7, 2015 at 8:44 PM

7/31/2016 Cebu International School Mail - Re: Dissertation information for Ted Mockrish ATT VER

To: Ver Castro <vercastro@earcos.org> Cc: CIS <esprincipal@cis.edu.ph>, Neil Walton <mhs@cis.edu.ph>

Thanks Ver..Great job.. hope this helps TED. Good luck..dk [Quoted text hidden]

**MHSprincipal** <mhsprincipal@cis.edu.ph> To: Dick Krajczar <dkrajczar@earcos.org> Cc: Ver Castro

<vercastro@earcos.org>

Hello again gentlemen!,

Fri, Jul 10, 2015 at 6:11 PM

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I have one more demographic question for you. Can you tell me the general rate of turnover for these two groups, principals and teachers, separately, that occur on an annual basis in the EARCos region?

It can be an average unless you have specific percentages for each year.. Again, thanks for your support. It's the nitty gritty in a dissertation that makes or breaks them!

Thanks again

Ted Mockrish Sent from my iPad

**Dick Krajczar** <dkrajczar@earcos.org> To: MHSprincipal <mhsprincipal@cis.edu.ph> Cc: Ver Castro <vercastro@earcos.org>

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Sun, Jul 12, 2015 at 12:59 AM We do not have this information Ted.. sorry..keep plugging away..dk

**MHSprincipal** <mhsprincipal@cis.edu.ph> To: Dick Krajczar <dkrajczar@earcos.org> Cc: Ver Castro <vercastro@earcos.org>

Ok thanks Dr K! No worries Ted

Sent from my iPad

[Quoted text hidden]

**Dick Krajczar** <dkrajczar@earcos.org> To: MHSprincipal <mhsprincipal@cis.edu.ph>

Sun, Jul 12, 2015 at 9:14 AM

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Mon, Jul 13, 2015 at 7:08 AM

7/31/2016 Cebu International School Mail - Re: Dissertation information for Ted Mockrish ATT VER

Cc: Ver Castro <vercastro@earcos.org>

Thanks..dk

Appendix O: Critical Effect Size Correspondence with Dr. Laura Roberts

8/13/2016 Gmail - critical effect size

**Theodore Mockrish <scribe247@gmail.com>**

**critical effect size**

6 messages

**Theodore Mockrish <scribe247@gmail.com>** To: Laura Roberts <rightangleresearch@comcast.net>

Sun, Aug 7, 2016 at 5:58 PM

Hi Laura Quick question I needed 45 schools to hit a critical effect size of .4 as we discussed this was the minimum I was shooting for. Can you give me the number that 43= it will be something like .41 or .42 If you can come up with a firm number I would like to include that i think you have the magic book that you can look that up in no? Thanks Ted

**Laura Roberts <rightangleresearch@comcast.net>** Sun, Aug 7, 2016 at 9:50 PM To: "Mockrish, Ted" <scribe247@gmail.com>

Yes, I have the magic book, but it is in my PA office and I am in the NJ office until Thursday. I can get that for you Thursday, if you send me a reminder. Or, you might be able to find the book online. It is *How Many Subjects: Statistical Power Analysis for the Social Sciences*, by Kraemer and Thiemann, Sage Publications.

Blessings!

**Laura Roberts, Ph.D. Professor of Research Methods Statistician, Dissertation Mentor, and Director Laura@RightAngleEducators.com Right Angle Educators Adjunct Professor of Education Gwynedd Mercy University**

**From:** "Theodore Mockrish" <scribe247@gmail.com> **To:** "Laura Roberts" <rightangleresearch@comcast.net> **Sent:** Sunday, August 7, 2016 5:58:14 AM **Subject:** critical effect size

**Theodore Mockrish <scribe247@gmail.com>** To: Laura Roberts <rightangleresearch@comcast.net>

Thanks Laura Ted

Ted Mockrish

**Theodore Mockrish <scribe247@gmail.com>** Thu, Aug 11, 2016 at 9:57 AM To: Laura Roberts <rightangleresearch@comcast.net>

a reminder about the magic numbers in the magic book Dr. Roberts!

**Laura Roberts <rightangleresearch@comcast.net>** To: "Mockrish, Ted" <scribe247@gmail.com>

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.42 is  
the answer! : D