

THE DEVELOPMENT OF GLOBAL-MINDEDNESS:  
SCHOOL LEADERSHIP PERSPECTIVES

by

Maria Hersey

A Dissertation Submitted to the Faculty of  
The College of Education  
in Partial Fulfillment of Requirements for the Degree of  
Doctor of Philosophy

Florida Atlantic University

Boca Raton, FL

May 2012

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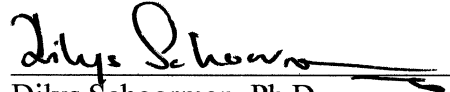
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This dissertation was prepared under the direction of the candidate's dissertation advisor, Dr. Ira E. Bogotch, Department of Educational Leadership and Research Methodology, and has been approved by the members of her supervisory committee. It was submitted to the faculty of the College of Education and was accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

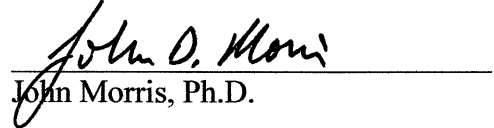
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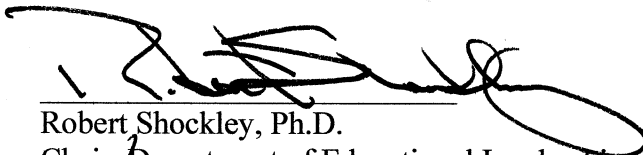
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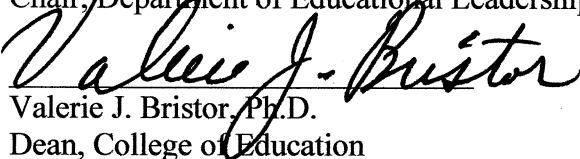
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## ACKNOWLEDGMENTS

The author wishes to express her sincere appreciation to her family, friends, and colleagues around the world who have continuously supported her in this endeavor, with special acknowledgment to Deloris J. Walker, Michael Woolman, Ann Hickey, Dr. Julie Hopkins, Dr. Jesse Nickelson and Dr. Jacqueline Ackerina. Thank you for your constant support, encouragement and friendship throughout this journey. In addition, this experience would not have been complete without the guidance of a group of truly, globally minded educators: Dr. Ira Bogotch, Dr. Dilys Schoorman, Dr. John Morris, Dr. Michele Acker-Hocevar and Dr. John Pisapia of Florida Atlantic University. It was a privilege to learn from such a renowned group who demonstrate a passion for inquiry, education and social justice. To my mother, your love, courage, strength and unwavering belief in the importance of education have made me the person that I am today. Don, thank you for your patience, commitment, and most importantly, for always believing in me. To Dr. E. J. Hett, your work lives on and your contributions to the field of education and the development of global-mindedness have stood the test of time.

## ABSTRACT

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Degree: Doctor of Philosophy  
Year: 2012

The purpose of this quantitative study was to investigate the development of global-mindedness (GM) in the leadership of primary schools offering international educational programs around the world with an emphasis on the need for school leaders that understand and support the development of a critical, global perspective of education. Reported findings identified the presence of the five dimensions of global-mindedness as well as the relationships between demographic variables such as travel experience, second language ability, and years of teaching experience. The findings also reported positive relationships between the subscales of Hett's (1993) Global-Mindedness Scale and the attributes of international-mindedness as defined by the International Baccalaureate's learner profile. The results of this study are intended to advance knowledge of the development of global-mindedness for school leaders around the world.

## DEDICATION

For my parents,  
the two most influential teachers in my life

THE DEVELOPMENT OF GLOBAL-MINDEDNESS:  
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## CHAPTER 1. INTRODUCTION

Life in the 20th century is evolving at a rapid pace and is producing both excitement and anxiety for those living in an increasingly complex, diverse and interconnected world. Due to unprecedented flows of the varied dimensions of the human experience, a multitude of forces are working together to shape our world and future with great affect. This enhanced global interconnectivity is just one facet of the multidimensional phenomena of globalization. Of particular concern is the impact of the forces of globalization on education and the lack of fit between what education is and what it needs to be. Despite the unprecedented speed and frequency related to the amount of information and ideas that traverse the globe, education appears to be stuck in a time warp framed by issues and objectives set decades before the effects of technological innovation, enhanced communication, changing political conditions and global migrations.

According to Jameson (1998), the concept of globalization is the intellectual property of no specific field, which may explain the arguments and posturing that has yet to produce a coherent or agreed upon definition for this multifaceted construct. Despite the lack of agreement regarding the semantics of globalization, academics, politicians, sociologists, and researchers alike acknowledge that this phenomenon has the ability to substantially impact and transcend all boundaries of human existence. According to Bell-Rose and Desai (2005), “Knowledge about the rest of the world is no longer a luxury; it is

a necessity” (p. 2). In addition to this knowledge about the rest of the world, students must also be provided with opportunities to develop a far different set of academic abilities, skills and perspectives the skills and values to navigate the complexities and inequalities that they will encounter as a result of the forces of globalization. Although urgent calls for change are at the forefront of social and political conversation, schools are still required to emphasize the basic skills of reading, writing, and computation within the confines of a curriculum driven by standardized testing, competition, and national citizenship. This despite the need for an entirely new system of education, which focuses on the larger concepts and ideals of creativity, collaboration, equity, social justice and communication across cultures (Guttek, 1993; Nordgren, 2002; Stewart & Kagan, 2005; Suarez-Orozco & Qin-Hilliard, 2004; Wallis & Steptoe, 2006). Evidence of the failure of today’s schools in meeting the needs of a complex and interconnected world is witnessed in multiple, measurable ways, including high dropout rates among immigrant, ethnic and racial minorities in wealthy countries and through the persistent under-enrollment of children in schools in poor regions of the developing world (Suarez-Orzoco & Sattin, 2007a). To further complicate matters, the rapid increase in ethnic, social, cultural, language, and religious diversity is challenging existing notions of nation-state citizenship and raising new questions regarding how schools will be able to prepare students to be productive, engaged, critical and responsible citizens of tomorrow (Banks, 2004; Burbules & Torres, 2000; Suarez-Orozco & Sattin, 2007b).

In addition to being required to focus on outdated curriculum and tackling the latest measures of mandated educational reform, many of today’s school leaders have the

added limitation of working within the confines of a mindset that has limited experience with the development of international or global perspectives of education. In order to successfully address the challenges brought forth by the multi-dimensional processes of globalization, school leaders must consider the current tension between change and continuity while developing a more critical, global perspective of education, which may be enhanced through the awareness and embodiment of the dimensions of global-mindedness. As research indicates that the principal is essential in developing the mission and vision within a school community, it is imperative that school leaders reflect upon their understandings related to the concept of global-mindedness to ensure the development of educational contexts that address the dynamics of life and work in a complex, diverse and interconnected society fraught with inequality (Guthrie & Sanders, 2001; Leithwood, Harris, & Hopkins, 2008; Walker, 2008).

Although some estimates indicate that a physician's knowledge becomes outdated every 5 years (Crow, Hauseman, & Scribner, 2002), few correlations exist that are specific to the types of dispositions necessary for effective school leadership that promotes a critical, global context for education. Despite this, one could expect similar obsolescence given modern technologies and the changing social, economic, demographic, and organizational features that school leaders around the world encounter and must prepare for (Fisch, 2009). Now more than ever, principals are often faced with conflicting perspectives and competing agendas related to the multi-dimensional processes of globalization which often serve as a primary influence of educational change. If school leaders are to become a fundamental part of the conversation, they

must transform current frameworks and learn to think in “global” terms rather than only considering “local” competencies when identifying the knowledge, skills, and attributes children will need to live in an interconnected and interdependent world (Zhao, 2009).

In addition to academic skills and the ability to communicate in more than one language, schools must also provide opportunities for students to develop dimensions such as efficacy or shared responsibility, global interconnectedness, and cultural pluralism to facilitate the development of a “global-mindset” that may assist with the realities of living in a world where people of many cultures are brought together on a daily, hourly, or minute-by-minute basis (Hett, 1993; Suarez-Orozco & Qin-Hilliard, 2004; Walker, 2008). More than any other generation in history, today’s students will need to develop higher order cognitive and interpersonal skills to learn, work and live with those who are increasingly likely to be of very different ethnic, religious, linguistic, and cultural backgrounds. Therefore, to better prepare teachers and students for the competing complexities of globalization across all dimensions of the human experience, school leaders must develop a relevant global mindset to ensure educational opportunities that emphasize the development of the skills, values, behaviors and attitudes necessary for life in a global era (Farahmandpur, 2009; Suarez-Orozco & Sattin, 2007a).

When developing the context for education in an increasingly interconnected and interdependent world, school leaders should be expected to consider the challenges of equity, complexity, and inequality within a framework that emphasizes the need for developing citizens who will understand how local or national interests are frequently dependent on forces outside geographic borders (Appadurai, 1996; Walker, 2008). This



call for the development of an education that is “international” was supported in a 2004 report by the Department for Education and Skills in England which highlighted the need for an international strategy for education to assist children in recognizing that we are all members of a world community and the responsibilities we have to each other are not romantic rhetoric, but modern economic and social reality (Bell-Rose & Desai, 2005; Stewart, 2005). When engaging in the search for an education that identifies 21st century realities, some propose it is essential to include the four core components of “international-mindedness” which include emotional intelligence, communication, cultural understanding, and collaboration (Hill, 2000; Walker, 2004).

Further to the perspective of providing an education that is international, some also recommend a focus that highlights the development of a global-mindedness, which while maintaining some fundamental similarities to international-mindedness, more accurately parallels, a cosmopolitan perspective. When applying a cosmopolitan perspective or global-mindset, one embraces a delicate balance between unity and diversity across cultures and seeks to engage in the language of inquiry with a sense of open-mindedness and a genuine curiosity regarding the notion of difference as it relates to culture, tradition, beliefs, and values (Appiah, 2006; Banks, 2004; Gunesch, 2004; Hett, 1993). As an example, a person demonstrating a global-mindset may be seen as being able to apply local and global perspectives and the inherent experiences of both perspectives when attending to difference regarding the introduction of new experiences, beliefs and values. In contrast, while the notion of international-mindedness has the potential to encompass understanding global issues, some definitions predominantly

promote this concept within a national context that emphasizes the relationships between and across nations, rather than the increasing interconnectedness of a global world (Cause, 2009a; Marshall, 2007).

According to Gunesch (2004), the development of a cosmopolitan perspective or global-mindset could constitute an alternative or complementary approach for international schools or schools offering international programs of education in both theory and practice. This perspective supporting the development of global-mindedness is also acknowledged by George Walker (2008), former Director General of the International Baccalaureate (IB) who suggested the following:

I much prefer the term “global-mindedness” to “international-mindedness.” The concept of an international world belongs to the 20th century, when events took place in distant, exotic countries whose schools--to use Alec Peterson’s phrase--were across frontiers. In the 21st century, those frontiers have been largely removed by electronic communication and ease of travel. Today, the global world starts on our doorstep, where the cost of buying a house is affected by the cost of labor in China, manufacturing in India modifies the weather in Florida and mass migration alters our national identity. (p. 35)

Walker’s (2008) proposal reflects a philosophical shift in thinking related to the development of an education that is international. Although many international schools, or schools that choose to offer an international program of education, vary widely in terms of academic goals, geographic location and student demographics, they often share a common theme of working within the context of internationalism which emphasizes relationships between nations in an attempt to instill international-mindedness in students. Among international educators, several debates have arisen regarding the definition of the concepts international-mindedness and global-mindedness. Initially introduced as a political concept by Margaret Mead in 1929, the term international-

mindedness has gained the attention of organizations such as the International Baccalaureate (IB), a non-governmental, educational organization, which emphasizes the need for the schools to ensure an openness and curiosity about the world while also developing a profound level of understanding of the complexity and diversity of human interactions (Cause, 2009b; Hill, 2007).

According to the International Baccalaureate Organization (IBO), the focus of their educational programmes (Primary Years, Middle Years, and Diploma) is to develop internationally minded people who are identified through their recognition of human commonalities and shared guardianship of the planet, while helping to create a better and more peaceful world (IBO, 2007b). Central to this definition of international-mindedness (IM) are the attributes identified by the IB learner profile (Appendix A), which are not intended to serve as identifiers of a perfect student, but rather as a road map for a life-long journey in the pursuit of international-mindedness. Although some suggest the IB's philosophical underpinnings and published definitions of international-mindedness are diffuse enough to overlap with the concept of global-mindedness, the use of the pre-fix international may unintentionally presume an overarching allegiance to national-awareness or the relationships between nations, rather than the broader, all encompassing perspective of shared humanity identified through the term global-mindedness (Appadurai, 1996; Banks, 2004; Tarc, 2009; Walker, 2008).

For the purposes of this study, the researcher defined global-mindedness as “a worldview in which one sees oneself as connected to the world community and feels a sense of responsibility for its members and reflects this commitment through

demonstrated attitudes, beliefs, and behaviors” (Hett, 1993, p.143). This definition, identified through Hett’s (1993) research and development of a survey instrument to measure the affective components of a global perspective, proposes a multi-dimensional framework that reflects a shared humanity which views the world as an interconnected, interdependent community. The definition also advocates responsible citizenship that considers both local *and* global perspectives while also reflecting a commitment to service. According to Hett (1993), the five dimensions of global-mindedness are responsibility, cultural pluralism, efficacy, global centrism, and interconnectedness. All five dimensions emphasize the development of responsibility, awareness and appreciation based on global, rather than ethnocentric or national standards. It is important to note that while these standards assume and support a global point-of-view as it relates to exploring and understanding other cultural frameworks, this does not suggest, support or assume the notion of global cultural convergence or global hegemony which frequently appears as a predominant theme when discussing matters related to globalization and global awareness.

According to Hill (2007), schools that offer IB programmes may be considered virtual laboratories of practice for the development of international mindedness. Of particular interest for this study is the IB’s Primary Years Programme (PYP), which is offered across the globe for students from ages 3 to 12. Much like the IB’s Middle Years and Diploma Programmes, which are offered to students from ages 13 through 19, the PYP was originally intended to facilitate the work of international schools and address issues regarding student mobility for those living abroad. Over time, questions arose

which challenged the belief that an international education only belonged within the confines of an international school context. This coupled with the adoption of IB programmes by an increasing number of public schools within the United States, led to the important realization that international education was no longer seen as a program for international schools overseas, but as an experience that should be an inherent part of the formal curriculum wherever it was taught (Hill, 2007).

While some identify the IB Diploma Programme as one exemplar that may assist in furthering the two major goals of education, enhancing academic achievement and deepening the social or moral fabric of students, given that the philosophical underpinnings of the IB are derived from a largely western-based perspective, it is not the intent of the researcher to infer that this is the only framework that may be used to promote an international education (Ellis, 2004). Rather, the IB perspective is offered as one representation of the three most basic worldviews of what curriculum should be. This supports the rationale for utilizing IB PYP school leaders around the world as a means for a purposeful sample related to the development of global-mindedness as the success or failure of any educational initiative is largely dependent on the understanding and commitment of school leadership (Ellis, 2004; Fullan, 1993).

### **Statement of the Problem**

While the issue of meeting the challenges of an ever-changing, complex global society has been at the forefront of educational conversations, political bureaucracies, a struggling global economy and myopic views of achievement have forced school leaders to focus on academics with the primary goal of developing students who are able to

obtain a competitive edge in an ever-changing global marketplace (Darling-Hammond, 2009; Friedman, 2005; Gardner, 2006; Hargreaves, 2003; Murphy, 2000; Pink, 2005; Tye & Tye, 1992; Wagner, 2008). As a caution to maintaining this one dimensional view of education, some note that entities which are tied solely to the formation of nation-state citizens bound to local systems are likely to become obsolete, while those that are proactive and engage the challenges of globalization are more likely to survive (Suarez-Orozco & Qin-Hilliard, 2004). Despite this point of view, many schools, particularly those in the United States, are bound to a national, standards-based curriculum, which focuses on rote learning and the memorization of facts rather than on the analysis of understandings across the disciplines and the process of learning.

According to Cause (2009a), understanding concepts such as international and global-mindedness is a challenging, but relevant inquiry that should be seriously considered if we are to successfully educate children for the future. While some studies related to the international and global-mindedness of teachers, university graduate students and high school students exist, there appears to be a lack of inquiry in the areas of school leadership, particularly from an international or cross-cultural perspective. When investigating the development of educational initiatives, the principal is often identified as essential to the development of school culture and is seen as a key player in nurturing the traditions, ceremonies, rituals and symbols that express and reinforce the overall mission and purpose of a school community (Deal & Peterson, 1999; MacBeath & Dempster, 2009). Therefore, to ensure the development of global-mindedness within the context of leadership and education, we must investigate the perspectives of school

leaders and the relationships that may exist across and between the dimensions of global-mindedness to further understanding related to this complex approach.

In addition to this lack of research related to international school leadership, there also appears to be a lack of study related to global-mindedness within international, primary school settings. Despite this, we may infer that preliminary studies related to global awareness, often identified as an essential component of global-mindedness, could support the theory that the primary years are the most appropriate time to introduce children to matters related to global issues and perspectives (Diaz, Massialas, & Xanthopoulos, 1999). This is further advocated through the research which indicates that a lack of understanding or awareness of global issues in young children as early as the ages of three can lead to damaging future practices such as racial and gender stereotyping (Cameron, Alvarez, Ruble, & Fuligni, 2001; Grant, 2006; Martin, Wood, & Little, 1990). These studies recognize the importance of the primary school in relationship to learning about diversity and the development of cultural bias which is further evidenced through Evan's (1987) findings that children, ages 10 or younger, are more receptive to learning about people in other nations, while at age 14, those same children are less receptive to and often develop negative connotations about those living in other countries.

The imperative of addressing the impact of the multidimensional processes of globalization on education is at the forefront of complex and often conflicting economic, political and social agendas. The underlying assumption of this study is that in order to ensure that schools are an essential and driving force of innovation and relevant change, educational leaders must be able to reframe their perspectives and personal mind-sets

related to life in a globalized world. Without the demonstration of the relevant dimensions of global-mindedness, school leaders will be unable to facilitate the development of the educational context and frameworks that will be necessary for life in an interconnected world rife with diversity, complexity and inequality.

### **Purpose of the Study**

The purpose of this exploratory study was to investigate the development of global-mindedness in the leadership of international primary schools. It was the intent of the researcher to explore the differences across the dimensions of global-mindedness (cultural pluralism, global centrism, efficacy, interconnectedness, responsibility) as identified by Hett (1993) for principals in primary schools offering international, educational programs and to investigate how contextual variables (age, gender, country of birth, travel and time spent outside the country of birth, number of countries visited, primary language, language speaking ability, years of teaching experience, years with IB, years IB authorized and IB school location) were related to these dimensions. The researcher also intended to identify relationships between the dimensions of global-mindedness and the attributes of international-mindedness as identified by the IB's learner profile.

### **Research Questions**

The four guiding questions for this study were:

1. What are differences across the dimensions of global-mindedness for principals of international, primary schools?



2. What are the relationships between demographic variables and the dimensions of global-mindedness?

3. What are the relationships between a model including all demographic variables and the dimensions of global-mindedness?

4. How do the dimensions of global-mindedness relate to the attributes of international-mindedness as defined by the International Baccalaureate's (IB) learner profile?

### **Significance of the Study**

While there appears to be some interest and research related to international education, international-mindedness and the impact of globalization on education, the predominant focus appears to be reserved for topics regarding international student achievement comparisons that focus on economic competition rather than the development of cross-cultural perspectives within a global context (Stromquist, 2002). Despite the era of growing awareness related to the impact of the processes of globalization, the field of educational leadership has fallen behind the pace of world events and appears to draw upon superficial comparisons between the policies and practices adopted in different countries. As no two societies are exactly alike in terms of culture, demographics, economics or political systems, it is suggested that the international and comparative branch of educational leadership be further developed to provide an enhanced understanding of the educational challenges and successes within a global context and more importantly, through the use of critical theory perspective (Dimmock & Walker, 1998b).

Due to the complex nature and processes of globalization, it is necessary to employ a critical theory perspective to recognize the deleterious impact on many dimensions of the human experience, especially in poorer or underdeveloped nations to facilitate the development of leadership discussions and practices that are counter-hegemonic in nature (Apple, 2004; Burbules & Torres, 2000; McLaren, 2003; Stromquist, 2002; Wink, 1997). To achieve a critical, international or global perspective of education, school leaders must learn to think and plan through a profile and process oriented approach (Haywood, 2002). This call for an internationally or globally minded approach to education emphasizes the need for investigating global-mindedness as an essential leadership skill or attribute and asks educational leaders to reflect upon the development and demonstration of the dimensions of global-mindedness to ensure a relevant educational context which addresses the complex, multidimensional processes of globalization and issues related to diversity, inequality and interconnectedness which has significant impact across the field of educational leadership for school communities around the world (Cambridge & Thompson, 2004; Walker, 2008).

### **Research Design**

The primary objective of this quantitative study was to investigate the development of global-mindedness within the leadership of primary schools around the world. The researcher intended to analyze differences across the five dimensions of global-mindedness identified as responsibility, cultural pluralism, efficacy, global centrism, and interconnectedness (Hett, 1993) for principals in schools offering international programs of education. The study solicited the participation of 408 primary

school principals who are currently working in authorized IB PYP schools from 75 countries around the world (Appendix C). Selected schools were authorized by the International Baccalaureate (IB) from the period of July 1998 through July 2008. This selection of a specific grouping within a certain period of time ensured that schools had participated in at least one IB programme evaluation cycle.

This study employed the use of survey methodology through the development of an on-line questionnaire that incorporated the use of Hett's (1993) Global-Mindedness Scale (GMS). The GMS was initially developed to evaluate the effectiveness of attempts to develop a global worldview in university students with the major assumption that it is indeed possible to educate for a global perspective (Hanvey, 1976; Hett, 1993). Due to the untimely death of Dr. E. J. Hett, with the permission of San Diego State University, the researcher administered a 54 question on-line survey, administered to all participants via SNAP, an electronic, internet-based survey program. This survey included a modified version of the 30-item Global-Mindedness Scale (GMS) and employed the use of a five point Likert-type scale. The slight modifications of the original 30 questions from Hett's (1993) GMS (items 1-30) incorporated the use of a broader, more neutrally worded response set as recommended by Hett (1993). To address research question number 4 regarding the significant relationships between the dimensions of global-mindedness and the IB's definition of international-mindedness, the researcher converted the IB learner profile attributes into 10 questions that replicated items from the GMS in type, style and five point Likert response scale. The researcher also developed 14 demographic questions (items 41-54) to identify relationships across and between

international principal characteristics and the dimensions of global-mindedness. These variables included items related to gender, age, country of birth, years of experience abroad, number of countries visited, additional language experiences, years of teaching and experience with the IB, years authorized and IB regional location. It was the intent of the researcher to investigate the correlations of these independent variables to the sub-scores (dimensions) of the GMS.

According to Hett (1993), the internal reliability, using a Cronbach's coefficient alpha was .90 for the original GMS and the alphas for subscales ranged from .70-.79. In addition to this, a content validity index (CVI) was established for the GMS by a panel of four context judges, which produced an overall CVI of .88 (Hett, 1993).

### **Limitations of the Study**

Despite the confirmatory nature of this study, which included additional research employing the Global-Mindedness Scale (Hett, 1993), one limitation involved the selection of the GMS and the acceptance of the five dimensions of global-mindedness as the foundation for this study. There is also some sense that the GMS inspires some level of social desirability, especially during times of war or global conflict (Hett, 1993) which may have some minor effect related to reported scores on the GMS (items 1-30). In addition to this, questions related to international-mindedness and the attributes of the IB learner profile (items 31-40) are likely to have limited variability as they also represent socially desirable responses based upon the definition and requirements related to the IB learner profile for authorized IB schools. It is also important to note that while Hett's (1993) GMS provides data on behaviors, attitudes and values which have implications for

school leadership, the instrument asks principals to respond as individuals, not in their role as school leaders. The GMS is therefore primarily a psychosocial instrument that was not intended as a critical, political or educational scale of measurement. In addition, the GMS does not directly measure leadership challenges, global complexities, political climates or the roles that schools or school leaders themselves play in globalization processes.

An additional limitation of this study is related to the research questionnaire, which was only offered via an on-line survey format in the English language. A further limitation was related to the process of self-reporting by the participants, which were based on personal interpretations that are often difficult to discern and may have some impact on the findings of this study. In addition, although the researcher's selection of school leaders currently located in schools authorized to offer the IB's Primary Years Programme (PYP) was developed as a means of a purposeful sample, a limitation existed in that only principals were invited to participate. Also, given the mission and purpose of IB schools to promote values such as international-mindedness, it would be expected that principals who choose to work in these schools would have a commitment to or understanding of the concepts of global-mindedness. Further to this anticipated homogeneity of participant responses, comparisons with other primary or elementary schools outside of the IB PYP community were not conducted which is also identified as a limitation of this study.

### **Delimitations of the Study**

A delimitation of this study existed within in the researcher's decision to emphasize the development of global-mindedness within the context of international, primary education which did not address the perspectives of middle, secondary, and higher educational institutions. In addition, the researcher did not include the theoretical frameworks of intercultural awareness, humanism or pluralism within the context of this study. The decision to conduct a quantitative study rather than employing the use of a mixed-methods approach to uncover further detail through qualitative methods is also identified as a delimitation of this study (Duckworth, Walker-Levy, & Levy, 2005; Hett, 1993).

### **Definition of Terms**

**Cosmopolitanism:** a personal, cultural identity form which furthers the concept of internationalism by straddling the global and local while encompassing questions of cultural mastery, cultural pluralism, mobility and travelling, home and nation-state attachments (Appiah, 2006; Gunesch, 2004).

**Cultural Pluralism:** an appreciation of the diversity of cultures in the world and a belief that all have something of value to offer. This is accomplished by taking pleasure in exploring and trying to understand other cultural frameworks (Hett, 1993).

**Efficacy:** a belief that an individual's actions can make a difference and that involvement in national and international issues is important (Hett, 1993).

Global centrism: thinking in terms of what is good for the global community, not just what will benefit one's own country, a willingness to make judgments based on global, not ethnocentric standards (Hett, 1993).

Globalization: a multidimensional phenomenon that employs a process approach which intensifies and connects global flows of knowledge, power, economy, technologies, people, values and ideas across borders with a variety of affects (Cohen & Kennedy, 2000; Held, 1995).

Global-mindedness: a worldview in which one sees oneself as connected to the world community and feels a sense of responsibility for its members and reflects this commitment through demonstrated attitudes, beliefs, and behaviors (Hett, 1993).

Interconnectedness: an awareness and appreciation of the interrelatedness of all peoples and nations, which results in a sense of global belonging or kinship with the human family (Hett, 1993).

Internationalization: the process of integrating an international, intercultural, or global dimension into the purpose, functions, or delivery of a school community (Knight, 2004).

International-mindedness: an openness to and curiosity about the world and people of other cultures, which serves to develop a profound level of understanding of the complexity and diversity of human interactions and is described through the attributes of the IB learner profile (Hill, 2007). This definition presumes a perspective of acknowledging issues within the context of two or more states, nations, or countries.

Responsibility: a deep personal concern for people in all parts of the world which surfaces as a sense of moral responsibility to try and improve conditions in some way (Hett, 1993).

### **Organization of the Study**

This quantitative, exploratory research study consisted of five chapters. The first chapter offers the introduction and background followed by the statement of the problem, purpose and significance of the study, which concludes with a section regarding research design, limitations, delimitations, and definition of terms. Chapter 2 presents the conceptual and theoretical framework with a supporting review of the literature of topics relevant to this study. Chapter 3 discusses the research design and methods employed in this study including information pertaining to: study sample, survey instruments, research methodology and data collection and analysis procedures. Chapter 4 presents the findings and results of the study and includes an interpretation and analysis of the data. Chapter 5 presents the discussion, findings and implications of this study. In addition, recommendations and suggestions for future implementation and research will also be discussed.



## CHAPTER 2. LITERATURE REVIEW

The purpose of this exploratory study was to examine the development of global-mindedness (GM) within the leadership of primary school communities around the world that offer an international educational program. This chapter includes a review of the literature that introduces the theoretical framework and conceptual understandings related to this study in the areas of globalization, international education and the development of global-mindedness. In addition to this, the role of the school leader will be reviewed as it relates to the internationalization of education and the influence of the school principal regarding the development of purpose and culture within a school community.

The purpose of this study is informed by a critical theory perspective to highlight the unequal and negative effects of globalization related to education and various aspects of the human condition. As suggested by Burbules & Torres (2000), this use of critical theory supports the recognition and respect of cultural differences as well as issues related to inequality and social justice, especially in this age of top down forms of globalization. To provide an example of the development of international-mindedness within a school community, an overview of the International Baccalaureate's Primary Years Programme (PYP) will be provided along with a historical perspective of this non-governmental organization, which oversees the development and authorization of educational programs that promote international-mindedness in action.

From the discussion and analysis of international-mindedness, evolves the similar, yet more comprehensive concept of global-mindedness, which appears to further the definition of international-mindedness through the development of broader, global perspectives that result in a sense of global belonging (Hett, 1993). The five dimensions of global-mindedness and their importance related to educational leadership will be identified to assist school leaders with an understanding of the essential elements of this multifaceted approach that is essential to the success of future generations.

### **Globalization: Interpreting a Multifaceted Phenomenon**

While it is not the intent of this study to review or refute all existing theories surrounding globalization, it is important to identify conflicting theoretical perspectives as a means of presenting a framework for how we approach this universal construct and apply these understandings to the field of education. A review of the literature indicates that globalization is often considered to be a multifaceted phenomenon which produces an abundance of opportunities and challenges depending on the perspectives, agendas or driving forces of influence (Daun, 2002; Held & McGrew, 2000; Spring, 2008; Stromquist, 2002). For some, globalization means the internationalization of financial markets which produces the global diffusion of norms, while others view globalization as a cover concept for the heterogeneity of processes that promotes social exclusion and increases gaps between the rich and poor within nations around the world (Apple, 2004; Burbules & Torres, 2000; Stromquist, 2002). These different perspectives of globalization have created varied and distinct definitions, which are often dependent on the disciplinary lens through which the concept is viewed and may explain the conflicting

perspectives related to origin and effect (Appadurai, 2001; Burbules & Torres, 2000; Suarez-Orozco & Sattin, 2007a).

From a historical perspective, some identify globalization as part of a long process of change that has been centuries in the making which has been used to justify important social, economic, and cultural practices from traditional boundaries thereby imparting various affects based on traditions, cultures and national priorities (Cohen & Kennedy, 2000; Suarez-Orozco & Sattin, 2007a). For example, matters such as large-scale immigration and international capital flow have been around for quite some time and are sometimes referred to as indicators of globalization rather than as a definition of the term. In contrast, others recognize globalization as a fairly recent phenomena brought about by technological advancement in which peoples of the world are interconnected through the development of component strands such as: changing concepts of time and space, increasing cultural interactions, common global issues and growing interconnections and interdependencies which interact as mutually reinforcing, simultaneous processes (Albrow, 1990; Mittleman, 2002; Yergin 2002).

Regardless of the point-of-view related to the evolution of globalization, each perspective appears to recognize the integration and convergence of a variety of forces and processes, which contribute to the development of this multi-faceted concept. This study therefore identifies globalization a multidimensional phenomenon that employs a process approach which intensifies and connects global flows of knowledge, power, economy, technologies, people, values and ideas across borders with a variety of affects (Cohen & Kennedy, 2000; Held, 1995). Given this conceptualization of globalization

which identifies the variety of affects across borders and cultures, some recommend the use of critical theory to ensure a perspective which acknowledges the potential benefits, yet also recognizes the negative effects of globalizing forces, especially for poor or disenfranchised populations (Burbules & Torres, 2000; Held, 1995; Knight, 1997; Stromquist, 2002; Suarez-Orozco & Qin-Hilliard, 2004). Critical theory acknowledges the hegemonic forces of globalization and provides a framework for this study which organizes and encourages engagement with the connections and disjunctions between elements such as economies and cultures with the goal of reconstructing or managing the various dynamics of globalization to better understand and transform the world (Giroux, 2003). This study is critical due to the manner in which IB schools and their leaders are framed within the broader context of globalization which recognizes the negative, as well as positive impact of globalizing forces on education, both in the United States and abroad. This perspective is particularly important in nations where the impact of hegemonic, Western-centric forms of globalization are driven by neoliberal marketization that results in standardization, instrumentalism and an educational system that ignores local interests in favor of economics and consumerism (Apple, 2004; Stromquist, 2002).

### **Impact and Ideologies of Globalization**

Adding to the complexity of the globalization debate are the dualities that exist related to the impact of globalizing forces. For example, from an economic perspective, some may highlight the positive aspects of globalization, which includes the creation of opportunities for the elite within and across national contexts while simultaneously creating negative results and challenges for the economically disadvantaged. These

contradictory viewpoints also appear through the cultural dimensions of globalization when recognizing the trend toward hegemony around Western norms and society despite an era of increased contact and contrast between diverse cultures (Burbules & Torres, 2000; Torres, 1998). Given this, it is impossible to ignore or resist the impact and influence of this compilation of complex processes on every aspect of human life, especially within the state of education. Globalization is increasing the importance of education through the increasing competitiveness of the world economy, the growing interdependence of countries, and the interconnections between human development and economic growth. This global interconnectedness suggests that the economic, political, and cultural forces affiliated with globalization have the potential to influence educational policy and change across borders and cultures (Bloom, 2004; Burbules & Torres, 2000). According to the 2008 Organization for Economic Co-operation and Development (OECD) publication *Trends Shaping Education*, four seminal trends have the potential to produce the most far-reaching impact on schools and governmental systems (OECD, 2008). These include: (a) new economic landscapes and rapid growth of knowledge economies; (b) growing divides between affluence and poverty, migrating populations, new language diversities, religions, lifestyles and values; (c) exponential growth in transformative technologies and a proliferation of user created information networks; and (d) changing social connections and values, a diminishing social trust, which creates complex configurations of home life.

Despite these varied and multifaceted trends, the challenges of recent economic times have focused conversations surrounding globalization from a primarily economic

perspective. For example, as noted by Pink (2005) a study conducted by Forrester

Research highlights the end of the age of optimism with findings that indicate:

At least 3.3 million white-collar jobs and \$136 billion in wages will shift from the United States to lower cost countries and that in addition to this, nations such as Japan, Germany, and the United Kingdom will experience similar job loss and by 2015, Europe will lose 1.2 million jobs to offshore locales. (p. 39)

These figures highlight the driving force and agendas for many developed countries that are striving to create a more globally competitive workforce for the purposes of power and authority (Friedman, 2005; Gardner, 2004; Suarez-Orozco & Qin-Hilliard, 2004). At times, this focus on economic superiority takes precedence over matters such as broad-based, functional literacy with a focus on competition rather than one that includes an emphasis on collaboration and the development of other skills, values and personal attributes which are necessary for living in a globally interconnected and interdependent world. This despite the fact that as far back as 1995, the United Nation's Copenhagen Summit on Social Development found that while globalization has been driven to some extent by high hopes of greater shared prosperity enhanced by the rapid processes of change and adjustment, what has been accomplished instead is more poverty, unemployment, and social disintegration which resides in isolation, marginalization and violence (Cohen & Kennedy, 2000; Munck, 2005). While these societal shifts should prompt educational leaders to raise issues related to economic injustice and global citizenship, the predominant focus on student accountability seems to only address concerns related to global economic success and competition (Noddings, 2005). According to Larson and Murtadha (2002), the adoption of top-down, high stakes testing in the United States has silenced discussions of curriculum and closed doors for

disenfranchised populations which has served to further bridge the divide between their more privileged peers. This trend can be expected to continue on a global scale unless dialogical processes that identify the primary needs, interests and concerns of all people are placed at the center of learning (Freire, 1970).

Despite the challenges brought about by the multi-dimensional process of globalization, typical responses from the education sector have been a lack of change or innovation, standardization of the curriculum which emphasizes a national, rather than international focus and little consideration of issue such as social justice, equity and diversity (Apple, 2004; Burbules & Torres, 2000; Stromquist, 2002; Suarez-Orozco, & Sattin, 2007a). Many schools appear to remain relatively unaffected amid the dramatic changes in form, content and accountability that have emerged as a response to globalization. For example, citizenship is being redefined by very high levels of migration and global interconnectedness, which foreshadow the social and cultural demands that will be placed on students in the future. Despite this, many schools around the world are moving towards a curriculum and academic standards that emphasize a national focus and at times fosters the development of hegemonic perspectives (Apple, 2004).

When considering the impact of globalization on education, school leaders must learn to recognize the inherent differences and outcomes between competing economic and social agendas before the process for real educational change may begin. Until then, schools will continue to replicate current practices that only provide more of the same rather than addressing the extreme differences that exist. In order to addresses issues of

complexity, diversity and inequality in education brought about by reactions to the multidimensional phenomena of globalization, school leaders must engage new technologies, changing social, cultural and ecological conditions, and new forms of economic struggle in an effort to rethink leadership and propose new ideals that recognizes the need for a global perspective (Bloom, 2004; Burbules & Torres, 2000; Tye & Tye, 1992). This engagement with the multidimensional process of globalization will require a demonstration of the dimensions of global-mindedness (cultural pluralism, efficacy, global centrism, interconnectedness and responsibility) within school communities regardless of location. This globally-minded view of education must be an inherent part of school leadership if we are to ensure the development of an education that is poised to develop the types of knowledge, skills, attitudes and behaviors that will be necessary to address the complexities and inequalities which will be encountered in an interconnected and interdependent world (Stromquist, 2002; Suarez-Orozco & Sattin, 2007a; Tye & Tye, 1992; Walker, 2008).

### **Reframing Education Through Internationalization**

When considering the development of a global perspective for education, school leaders face a number of key challenges, which includes creating a vision that supports the limited scope of current academic requirements and understandings that also promote ethical sensibilities that move from competition and individualism toward human solidarity (Tarc, 2009). To address challenges such as this, it is essential for school leaders to understand the inherent distinctions between the seemingly familiar terms of *international education* and *internationalization*. According to Knight (1997), the former



assumes that education is international, while the latter acknowledges the engagement of a process approach with the end result being remote and difficult achieve. In addition, it is important to note that while internationalization is driven by social dynamics similar to that of globalization, it typically exhibits contradictory tendencies. For example, globalization seems to undermine cultures and traditions leading to hegemony and the proliferation of dominant political agendas, which promote commercialization, academic capitalism and commoditization within international programs (Munck, 2005; Stromquist, 2002).

In contrast, internationalization is viewed by some as the promotion of relationships between nation-states while respecting difference and traditions and is committed to achieving the goals of an international, moral, and political order predicated on a respect for difference, social justice, and collaboration within and among nations (Gacel-Avila, 2005). It is suggested that internationalization is one way in which a country responds to the impact of globalization, while at the same time respecting the individuality of that nation, thereby acknowledging globalization as the catalyst and internationalization as the reaction to this multifaceted phenomena (Knight, 1997). As this study supports a critical theory perspective which recognizes the multiple agendas that exist regarding the impact of globalization, internationalization is defined as: “the process of integrating an international, intercultural, or global dimension into the purpose, functions, or delivery of a school community” (Knight, 2004, p.11). Within this definition exists an implied emphasis on the existence of internationalization as an on-going, counter-hegemonic process that purposefully intertwines international,

intercultural, and global contexts to highlight the breadth and sense of relationships between and among countries, while also emphasizing a sense of worldwide scope (Knight, 1997; Knight, 2004; Schoorman, 2002).

When reviewing the internationalization of higher educational institutions, it appears that many countries and educational communities around the world are facing the challenges and opportunities of the changing international dimension of education. Within this context, some discussion has occurred regarding the variety of approaches that may be employed to facilitate the process of internationalization. According to Knight (2004), although different countries, or even institutions within a country, may hold common interpretations, the manner in which they address internationalization is very different due to priorities, culture, politics, and resources. Therefore, the use of the term *approach* is suggested for it does not infer a fixed definition or *right* way of doing things, but describes the manner in which the term is conceptualized. By employing a process approach, entities are also able to reflect the values, priorities, and actions that are necessary while working toward implementing internationalization (Knight, 2004).

When considering the development of a global perspective of education, school leaders may find some assistance through participation in international, educational programs that espouse the importance of concepts such as international-mindedness, shared humanity and service to others. Non-governmental organizations (NGO) such as the International Baccalaureate (IB) have developed frameworks for programs that offer an “education that is international” which emphasizes a view of education that is based on the broader understandings of culture, the ethics of responsibility and various

approaches to international education. In some sense, IB programmes may be viewed as one example of the internationalization of education in action. Therefore, the researcher has employed the use of principals currently in primary schools around the world that are authorized by the IB as a means of purposeful sample for this study. Further to this implementation of international education programs and the development of a global perspective, through her study involving conceptualizations of internationalization in higher education, Schoorman (1999) noted that diverse understandings and perspectives related to internationalization may create implementation issues for administrators where the mission to internationalize teaching and service dimensions of the educational process have been formally adopted. Given this point-of-view, it is appropriate to introduce the dimensions and conceptual framework for global-mindedness as one approach for educational leaders in furthering the internationalization of education as a response to the multidimensional forces of globalization.

### **The Development of Global-Mindedness**

According to Hett (1993), the dominant ideologies of ethnocentrism and self-interest guided many political decisions of her time and seemed to lead humanity closer to destroying or irreparably damaging the planet. Ironically, these themes continue to prevail in the world today and appear to be compounded by the forces of globalization. Through her research which included a review of a variety of related empirical measures such as Sampson and Smith's (1957) world-mindedness scale, Reddin's (1975) Culture Shock Inventory and the Global Understanding Standing Project developed by Barrow et al. (1981), Hett proposed a definition of global-mindedness which identifies "a

worldview in which one sees oneself as interconnected to the world community and feels a sense of responsibility for its members which is reflected in attitudes, beliefs, and behaviors” (Hett, 1993, p.143). This definition presumes a perspective that acknowledges issues in the context of the world as a whole and clearly identifies five dimensions of global-mindedness:

1. Cultural Pluralism: An appreciation of the diversity of cultures in the world and a belief that all have something of value to offer. This is accomplished by taking pleasure in exploring and trying to understand other cultural frameworks
2. Efficacy: A belief that an individual’s actions can make a difference and that involvement in national and international issues is important
3. Global centrism: Thinking in terms of what is good for the global community, not just what will benefit one’s own country. A willingness to make judgments based on global, not ethnocentric standards
4. Interconnectedness: An awareness and appreciation of the interrelatedness of all peoples and nations, which results in a sense of global belonging or kinship with the human family
5. Responsibility: A deep personal concern for people in all parts of the world, which surfaces as a sense of moral responsibility to try and improve conditions in some way. (p. 143)

In addition to the identification of dimensions of global-mindedness, Hett’s (1993) research also suggested 11 associated characteristics for globally-minded people which include open-mindedness, flexibility, and an opposition to prejudice and notes that participants scoring higher on the Global-Mindedness Scale (GMS) exhibit characteristics that are also cited in the literature regarding effective international teachers. These characteristics include: female gender, significant international experience, participation in internationally oriented activities, having friends from other countries or cultures and having experience living outside of the United States for nine weeks or more.

Although no published evidence exists of the GMS being used within the field of international educational leadership and management, or outside of the context of the United States, the GMS has been replicated or employed through at least seven studies of global-mindedness across various populations. Following Hett (1993), the GMS was replicated by Gillian (1995) to investigate the global-mindedness of university students, faculty and administrators located within the United States in which female gender and higher age ranges were reported as predictors of global-mindedness. Hett (1993) and Gillian's (1995) findings related to female gender were supported by Zhai & Scheer (2004) when using the GMS to study the perspectives of undergraduate, agriculture students at Ohio State University. Kehl (2005) also employed the GMS to compare the differences of personal characteristics, self-efficacy and social attitudes between students who participated in short-term and semester long study abroad programs. Kehl's (2005) research found that students who had completed a semester in a study abroad program scored significantly higher on levels of global-mindedness than those who only intended to participate in the future. When investigating the extent of international experience and its effects on global-mindedness among North Carolina extension agents, Smith (2008) found that females and those with international experience scored higher on the GMS, thereby supporting Hett (1993) and Gillian (1995). The study also found that participation in international programs increased global-mindedness and that extension agents believed they gained both personally and professionally from these programs and were able to use the international experience in their work at home (Smith, 2008).

Perhaps the most relevant replication of Hett's (1993) GMS related to the field of education exists within Duckworth, Walker-Levy, & Levy's (2005) study of the international-mindedness of pre- and in-service teachers which included an analysis of beliefs about teaching and learning in international settings. During their study, Duckworth et al. (2005) identified international-mindedness and global-mindedness as synonymous in nature and purpose. Employing Hett's GMS, the study did not find significant relationships between scores on the GMS and the factors of: gender, age, ethnicity, experience outside the USA, number of countries a student had lived in, country of birth, length of time abroad, type of language or number of languages spoken and length of teaching experience country of birth (Duckworth, et al., 2005). The authors reported that one reason for the surprising and contradictory results from previous studies of global-mindedness might be a result of the use of quantitative methods, which did not allow for the investigation of the quality and types of individual experiences. The most recent replication of Hett's (1993) GMS was conducted by Kirkwood-Tucker, Morris & Lieberman (2011) who examined degrees of world-mindedness of 644 undergraduate elementary and secondary social studies teacher candidates at five of Florida's largest public universities. Findings demonstrated that variables significantly related to higher scores on the GMS were: the ability to speak two or more languages, taking courses with a global orientation, high grade point average, progressive political orientation, country of birth outside of the United States and similar to previous findings, female gender.

Hett's (1993) research and findings, as well as the findings of subsequent studies employing the GMS has significant implications for school leaders in terms of identifying

the attributes and dimensions necessary for shaping school communities that are better equipped to respond to the challenges and complexities of globalization. If principals are expected to develop a global educational context, they must be able to demonstrate the values and understandings necessary to manage the forces of continuity, change and inequality that are being exacerbated by globalizing forces. This study's investigation of the global-mindedness of school leaders is predicated upon E. J. Hett's (1993) research, which was initiated through the educational imperative of fostering the development of a global perspective in university students. Although Hett's (1993) GMS was not conceptualized to measure the criticality of leadership perspectives, it is an important indicator of whether school leaders possess the crucial characteristics or dimensions (cultural pluralism, efficacy, global centrism, interconnectedness, responsibility).

Hett's (1993) research and identification of the five dimensions of global-mindedness draws upon a substantial field of study related to the development of a global perspective and as noted, has been replicated on several occasions within a variety of contexts. The extensive research conducted by Hett (1993) and subsequent tests of validity and reliability supported the use of the GMS in this study of school leadership and the development of global-mindedness. In addition, the discrepancies and inconsistencies noted throughout the previous research related to global-mindedness suggested the need for further study and investigation in this area.

## **The Role of Leadership**

As societies become more diversified and complex, school leaders must develop a more sophisticated style of leadership and educational management that is better suited to meet the needs of life in a globalized world (Begley, 2002). According to Dempster (2009):

School leaders, irrespective of their countries of origin or their cultural settings, must be keen 'readers' of broad social, economic and cultural trends in order to enable them to interpret where and how the school's energies should be employed in the interests of keep learning centre stage. (p. 25)

To ensure opportunities that raise awareness of issues such as diversity, inequality and interconnectedness, educational leaders must recognize their primary role of reframing the vision and purpose of a school community by demonstrating the necessary characteristics and attributes for the development of a global perspective of education. In addition, school leaders must present opportunities for reflection and analysis to allow for distinctions between articulating values such as responsibility, efficacy and interconnectedness as opposed to an actual demonstration of that value in action (Begley, 2002; Hodgkinson, 1991). For example, educators who exhibit the dimension of cultural pluralism may acknowledge the need for a philosophical shift from that of training students to accept and mimic roles that promise success in the world, towards one of providing learning experiences in which students are informed about themselves and who they are in the world given that "who they are" in the world varies for each child across cultures and contexts (Townsend & Otero, 1999).

One of the many challenges presented to school leaders as a result of the process of globalization questions how schools will be organized, governed and led so education



becomes meaningful for all students (Dimmock & Walker, 2000b). With this in mind, comparative studies of educational leadership should be developed which provide the macro and micro perspectives that are required to respond effectively to the multidimensional forces of globalization impacting education from both Western and non-Western points-of-view. In addition to this, despite timely calls for comparative perspectives of globalization's impact on educational policy and practice, a review of the field of educational leadership finds a lack of significant research related to cross-cultural or international education frameworks (Dimmock & Walker, 1998a; Hallinger & Leithwood, 1996).

Given the myriad of research and understandings related to school leadership, it is important to identify the overarching definition and attributes that are essential to the development of a global perspective of education. According to Northouse (1997), leadership is a non-linear, interactive process by which an individual influences a group of individuals to achieve a common goal while also emphasizing the importance of empowering others. From this point-of-view, leadership is recognized as a transactional event that occurs between a leader and a group rather than being identified solely by specific traits or characteristics. Dimmock (2000a) supports this view of leadership as the ability to influence others towards achieving agreed goals and also finds that successful leaders possess a sense of direction and the capacity to persuade across all levels of the school community.

According to Haywood (2002), leadership is the single most important factor in creating a school's ethos and identity; therefore, we must identify how successful leaders

have influenced schools to develop an international ethos. An important aspect of schools that have been at least partially successful in developing an internationally minded education within a variety of cultural contexts has been the establishment of an administrative style that supports and is consistent with the values of the school community (Thompson, 1998). This perspective suggests that school leaders must demonstrate the attributes and dimensions necessary for the development of international and global-mindedness if they are expected to develop a global perspective of education. Given the overarching similarities between international and global-mindedness, it may be appropriate to assume similar expectations for the development of both constructs. The importance of establishing consistency and clarity is essential and an identification of values provides a focus and serves to define the conscious expressions of what an organization cares about by providing a deeper sense of what is important (Begley, 2002; Deal & Peterson, 1999).

In addition to this, the literature related to school improvement processes has consistently pointed to the integral role of the principal and the need for high quality, effective school leadership to ensure organizational learning and improvement (Robinson, Lloyd, & Rowe, 2008; Tye & Tye, 1992). Although the school leader is primarily responsible for the success of transplanting new pedagogy and curricula, one reason for a lack of meaningful, sustainable reform may be that school leaders in general lack the necessary skills and vision to move schools towards a new future. This challenge is further complicated by the finding that the implementation of programs, such as those developed outside of the local cultural context, are generally unsuccessful for

reasons also related to the school's leadership (Hallinger & Kantamara, 2000; Morris & Lo, 2000; Villa & Thousand, 2005). This apparent lack of success related to the implementation of international educational programs, underscores the need for educational leaders to become more astutely aware of their understandings as it relates to concepts such as international and global-mindedness which will enhance understandings across cultures and local cultural contexts. In addition, an understanding and development of the values based dimensions of international and global-mindedness are essential attributes for school leaders.

Research and study suggest that the leadership process is culturally and contextually bound and inextricably intertwined with its larger environment ranging from the organizational community, to local community on through to larger society (Bottery, 1999; Heck, 2002; Hofstede, 1994). This influence is multidimensional and easy to overlook, however, the recognition of the nexus between leadership and cultural or contextual influences can lead to improvement in its practice (Dimmock & Walker, 2005; Hallinger, 2005). These ideals support the need for an in-depth study of international, educational leadership perspectives and the concept of global-mindedness to provide school leaders with information related to the understanding and development of the knowledge, skills and attitudes that are essential to meeting the needs of school communities and educational systems that are struggling to prepare students for life in a globally interconnected world.

## **The International Baccalaureate (IB)**

According to Tarc (2009) underlying philosophies such as those related to the international-mindedness, may indicate that unlike other educational entities that seek to internationalize school communities with token supports related to international understanding, the IB exhibits a commitment to their mission driven concern for internationalizing curriculum within the overarching goal of supporting international understanding. In addition, while public or government schools in various nations may be subject to the vagaries of resources, politics and economic agendas with limited control over educational standards, the systematic approach developed by international educational organizations, such as the IB, can engage a counter-hegemonic perspective of curriculum in a variety of nations around the world (Freire, 1970; Schoorman, 1999).

Founded in Geneva, Switzerland in 1968 as a not-for-profit educational foundation, the IB began with the conceptualization of the IB Diploma Programme, which was developed by a group of educators from the International School of Geneva and staff from several other international schools. Carrying forward the ideals and dreams of the IB founders, and with the addition of a middle and primary years program, this organization exists to provide a high quality education to students around the world from the ages of 3-19 years of age. According to the IB, the organization was founded on the ideals of their mission statement, which reads:

The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end, the organization works with schools, governments, and international organizations to develop challenging programmes of international education and rigorous assessment. These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.

Hill (2007) noted that the first IB schools were predominantly international schools, which included a very small number of private, independent schools. In contrast today and during a period of unprecedented growth, many IB authorized schools are public or state schools located in the North American region. While these public or state schools may not fit the profile of the traditional concept of an *international* school, they may certainly be considered as schools that are offering an international program of education. According to the IB website, there are more than 794,000 IB students at 2,871 schools in 138 countries, which include 2,088 Diploma, 768 Middle Years, and 625 Primary Years authorized schools located around the world (IBO, 2011b). Although the research regarding schools offering international programs of education is somewhat limited, there appears to be growing interest in the IB curriculum throughout the world.

The IB philosophy proposes that international education should be concerned with the total school experience, which includes formal (planned learning) and informal school experiences. While an internationally-minded curriculum must offer an international perspective which recognizes global issues and universal themes, this type of educational experience also requires attention to pedagogy that develops an open-mindedness towards other cultures and the skills of critical analysis to make informed choices (Hill,

2000; Suarez-Orozco & Sattin, 2007; Townsend & Otero, 1999; Tye & Tye, 1992).

Evidence of this international educational framework is intended to be experienced within both the formal and informal curriculum of IB authorized schools.

The International Baccalaureate (IB) endeavors to provide an educational framework for schools to assist with the development of an international program of education that offers a comprehensive and perhaps practical view of an internationally minded education in action (Hill, 2007). To ensure quality and fidelity of implementation, the organization has created IB programme standards and practices, which are designed to provide schools with the necessary principles and indicators for consideration and reflection and are the responsibility of all members of the school community (see Appendix B). These programme requirements emphasize elements such as governance and leadership support related to the development of international-mindedness throughout the curriculum, pedagogy and entire school community. Each standard provides the participating schools with a starting point for a school-wide evaluation and self-study process in which schools must provide evidence of these standards and practices in action. This information is verified by outside IB practitioners every five years after a school's authorization visit and is meant to facilitate reflective leadership and teaching throughout the entire school.

Although some scholars recognize the important implications of the International Baccalaureate's advocacy of international-mindedness, by providing an educational framework that allows schools to identify key objectives that may be relevant in a wide range of cultural contexts, a conflict exists for those who recommend that adult

expressions of international-mindedness should be avoided as identifiable or selected learning outcomes. According to Haywood (2007), even though well intended, schools should not direct students towards particular objectives, but instead provide illustrations of the diverse ways in which international-mindedness may be articulated. This perspective encourages the use of general predispositions that allows students to develop their own responses and methods of expression. This argument is furthered through the suggestion that rather than specific attributes, an identification of *essential* or *supporting* components be developed by schools as the minimum to ensure the development of international-mindedness. According to Haywood (2007) these may include:

- curiosity and interest in the world around us, based on knowledge of the earth and its human and physical geography
- open attitudes towards other ways of life and a predisposition for tolerance as it relates to other cultures and belief systems
- knowledge and understanding of the scientific basis that identifies the earth's environment as a common entity of value to everyone
- recognition of the interconnectedness of human affairs
- human values that combine respect for other ways of life with care and concern for the welfare and well-being of people in general. (p. 86)

Haywood's (2007) perspective suggests the use of a dimension-based orientation of international-mindedness that allows for flexibility in implementation while also providing a counter-hegemonic perspective. According to Dimmock and Walker (2000a) dimensions may be defined as "core axes around which significant sets of values, beliefs and practices cluster" (p. 308). Although the IB still employs the use of specific terms, the organization has recognized the need for the development of a more flexible approach as evidenced in the permissions granted to alter the learner profile vocabulary for some schools currently implementing IB programmes. Despite this, it should be noted that the

large majority of schools around the world are still required to adhere to the development of the attributes of the IB learner profile as a measure of international-mindedness within a school community. This recognition of the importance of cultural contexts and hegemonic elements that may be introduced, even through international educational programs such as those developed by the IB, supports the need for further research related to the necessary strategies, approaches and processes that are essential in developing an internationally or globally-minded approach to education.

### **Understanding International-Mindedness**

Although some support the assumption that International Baccalaureate (IB) has presented a framework for developing sensibilities that go beyond contributing economic agendas of global competitiveness, others suggest that the forces of globalization have created new challenges for the organization, that of ensuring educational programmes that will help students become more globally-minded (Tarc, 2009; Walker, 2008). Due to the frequent interchangeability the terms international-mindedness and global-mindedness, discourse has surfaced that prevents a coherent picture of the similarities and differences between these two approaches to internationalization (Gunesch, 2004; Haywood, 2007). In addition, inherent commonalities exist amid prevailing perceptions that educators can recognize and develop international or global-mindedness, even though definitions and understandings remain unclear (Cause, 2009b; Duckworth et al., 2005; Matthews & Sidhu, 2005; Noddings, 2005). Initially introduced after World War I, many international schools from around the world sought to embrace international-mindedness for the purposes of developing values such as world peace, global awareness,



and respect for others while other chose to use it as an approach to serving expatriate populations from Western countries (Cause, 2009a). Some recognize international-mindedness as a catalyst for overcoming ethnocentric perceptions, behaviors, and ways of being in the world, which include flexibility, open-mindedness, second-language abilities, and being interested and informed about others as key characteristics. Others suggest the definition has evolved from the ability to understand and examine different backgrounds, perspectives, and values without necessarily accepting them. The current perspective of international-mindedness (IM) seems to recognize an openness to and curiosity about the world and other cultures while developing a profound level of understanding of the complexity and diversity of human interactions (Hayden, Rancic, & Thompson, 2000; Hill, 2007; Van Hook, 2000). To further enhance this evolution, organizations such as the IB have developed key attributes of international-mindedness, identified through the IB learner profile which notes a set of ten, learner centered characteristics (caring, communicator, inquirer, knowledgeable, thinker, principled, open-minded, risk-taker, reflective, balanced) meant to describe what it means to be internationally minded (Appendix A).

The International Baccalaureate Organization (IBO, 2007a) contends that the learner profile is not intended to describe the characteristics of the perfect learner, rather it is suggested as a map for a lifelong journey in pursuit of international-mindedness and provides a long-term vision of education meant to inspire, motivate, and focus the work of schools. To support this, perspective, some suggest the teaching of international-mindedness is best implemented as a *profile* approach to ensure effective development

related to the culture, curriculum, pedagogy, and assessment of a school community (Gellar, 2002; Quist, 2006). With this in mind, it is appropriate to identify the attributes of the IB learner profile as one example of a *profile* approach towards the development of international-mindedness. Through the learner profile, the IB also appears to have developed a set of clearly identified characteristics for all members of a school community to consider, which supports theories related to approaches towards the internationalization of education (Gellar, 2002; Knight, 2004; Quist, 2006). Given the context of authorized IB PYP schools within which this research was conducted, the IB's definition of international-mindedness which identifies "an openness to and curiosity about the world and people of other cultures, which serves to develop a profound level of understanding of the complexity and diversity of human interactions" was employed for the purposes of this study (Hill, 2007, p. 5). For the purposes of this study, this definition emphasizes the openness and relationships that occurs between nation-state and identifies issues within the context of national or ethnocentric standards rather than those, which are based on the needs of the global community. Given the over-arching themes that exist between international and global-mindedness, it is the intent of the researcher to provide additional insight related to the definitions, characteristics and dimensions surrounding these two concepts with the purpose of providing common ground and examples of essential and supporting concepts for school leaders.

## **Comparing International and Global-Mindedness**

Upon cursory review, the IB's definition of international-mindedness which identifies an openness to other cultures and a profound level of understanding of the complexity of human interaction seems to address the necessary perspectives for life in a global, interconnected world and in some ways parallels elements of the similar concept or approach of global-mindedness which includes the identification of a worldview in which one sees oneself as connected to the world community (Hett, 1993; Hill, 2000). Despite these commonalities, several subtle, yet fundamental differences may be identified between the two. The information in Table 1 identifies the similarities between Hett's (1993) characteristics of global-mindedness (Appendix C) and the attributes of the IB Learner Profile (Appendix A) and also highlights several inherent differences related to the characteristics of environmental concern, cultural pluralism, interconnectedness and a futurist perspective. While this comparison does not suggest a taxonomy or classification of the characteristics of international- or global-mindedness should be developed, it illustrates the fundamental areas of distinction when comparing the two approaches to internationalization. Findings related to the omission of the dimensions of cultural pluralism and interconnectedness, as well as the characteristics of environmental concern and futurist perspective within the IB learner profile attributes may assist with furthering understandings related to the perceived differences of international and global-mindedness.

Table 1

*Comparison of Characteristics of GM and IM*

Characteristics of global-mindedness (Hett, 1993)	IB learner profile attributes (Hill, 2007)
Personal attributes	Inquirer; balanced
Oppose prejudice	Principled
Responsibility & care	Caring
Activists	Risk-taker
Additional language ability	Communicator
Seek to learn	Knowledgeable; reflective; thinker
Unity of humanity	Open-mindedness
Environmental concern	Not identified
Cultural pluralists	Not identified
Interconnectedness	Not identified
Futurist perspective	Not identified

While the elements of cultural interconnectedness and an awareness of difference are recognized by the IB's philosophical frameworks, overt references related to environmental concern, cultural pluralism, global interconnectedness, and a futurist perspective was not identified. These omissions emphasize primary differences between international and global-mindedness based on the definitions employed in this study.

Discussions related to the nature of difference of IM and GM suggests that international-mindedness as defined by the IB maintains a focus on the relationships between nations, while global-mindedness focuses primarily on understanding world issues and presumes global cultural convergence (Cause, 2009b). It would be inappropriate to support Cause's (2009b) assumptions since the definition of GM employed through this study recognizes the importance of local, national and global contexts which coincides with a global perspective that considers the needs of the global community, not just the benefit to one's own country (Hett, 1993).

Given the similarities between international and global-mindedness which seem to highlight an extension of the stated definitions of international-mindedness to that of the larger, global context illustrated by global-mindedness, it was the intent of the researcher to investigate whether school leaders in schools around the world currently offering international programs of education (IB) possess the dimensions of global-mindedness and to provide information related to the development of global-mindedness as an approach for schools of today and in the future, which are affected by the multidimensional, multifaceted process of globalization.

### **Summary**

The role of education in the 21st century continues to develop and evolve alongside the rapidly as the multi-dimensional forces of globalization and educational leaders are struggling to keep up with the pace of change. In addition, a plethora of challenges have arisen related to how to best prepare students to be knowledgeable, compassionate, active and responsible citizens in a globally interconnected society. With this in mind, conversations related to the internationalization of education and the development of an education that is international has come to the forefront of social, economic, political, and cultural, agendas around the world. If school leaders are to be seen as responsive and active participants, and real change in education is to occur, then an understanding of the perspectives, skills, characteristics, and mindsets needed for life in a global world must be identified and understood. Given the essential role of principals in sustaining and developing a vision and change within a school community, it is essential to examine cross-cultural leadership perspectives as it relates to the

development of a global-mindset. In the following chapter, the researcher will describe the plan used to complete this quantitative study of the development of the dimensions of global-mindedness in the leadership of international primary schools around the world. The sampling plan discusses the use of IB PYP school leaders as a means of a purposeful sample with a section following related to instrumentation, validity and reliability. The next section will provide the reader with a detailed description related to data collection procedures followed by details related to the analysis of data and results of this study.

### CHAPTER 3. METHODOLOGY

The purpose of this quantitative study was to investigate the degrees of difference across Hett's (1993) five dimensions of global-mindedness (cultural pluralism, efficacy, global centrism, interconnectedness, responsibility) for principals of international, primary schools. The Global-Mindedness Scale (Hett, 1993) was intended to provide measurements of affective behaviors, attitudes and values related to the development of global-mindedness and has been replicated through various empirical studies to measure levels of global-mindedness for undergraduate students, university faculty and administrators, agricultural extension agents (Duckworth et al., 2005; Gillian, 1995; Kehl, 2005; Kirkwood-Tucker et al., 2011; Smith, 2008). Although the GMS (Hett, 1993) has been employed across various demographic groups in the past, this research study offers the first example of the instrument being used across national groups of primary school principals.

Using a quantitative, non-experimental research design that employed a modified version of Hett's (1993) GMS, this study also examined the relationships between and across the five dimensions of global-mindedness for the demographic variables of gender, country of birth, travel and time spent outside the country of birth, number of countries visited, primary language, language speaking ability, years of teaching experience, years with IB, years IB authorized and IB regional location. According to Cause (2009a) international-mindedness, as conceptualized through entities such as the IB, emphasizes

the relationships between nations rather than that of a global worldview. This suggests a perspective, which exists within the confines of national citizenship or a nation-state, rather than that of a global-mindedness, which promotes a worldview regardless of national citizenship. Based on the contrasting points-of-view that are presented the researcher also sought to determine the relationships between the five dimensions of global-mindedness and the ten attributes of the International Baccalaureate's (IB) learner profile (balanced, caring, communicator, knowledgeable, inquirer, risk-taker, open-minded, principled, reflective, thinkers) to further explore the relationships between international and global-mindedness.

The four specific research questions guided this study are as follows:

1. What are differences across the dimensions of global-mindedness for principals of international, primary schools?
2. What are the relationships between demographic variables and the dimensions of global-mindedness?
3. What are the relationships between a model including all demographic variables and the dimensions of global-mindedness?
4. How do the dimensions of global-mindedness relate to the attributes of international-mindedness as defined by the International Baccalaureate's (IB) learner profile?

### **Setting**

According to the IB, schools that are authorized to offer any of the IB's three programmes (PYP, MYP, and DP) must ensure the development of international-



mindedness throughout the entire school community (IBO, 2007b). Therefore, it is appropriate to use a purposeful sample of IB PYP principals currently working in schools authorized to offer this international, educational program. In July 2008, there were 443 authorized PYP schools around the world (IBO, 2011b). This group of schools represents IB programmes, which have participated in at least one evaluation site visit by the IB and served as the target setting for identifying the sample of international, primary school leaders. The IB has recently revised the geographic designations of IB authorized schools according to the following descriptions: IBA (IB Americas which includes North America, South America, & the Caribbean), IBAEM (IB Africa, Europe & the Middle East) and IBAP (IB Asia Pacific) (IBO, 2011b). However, for the purposes of this study, the researcher chose to employ the four designations identified in Table 2, which were previously used by the IB to provide greater distinction between reported geographic locations.

Table 2

*Estimated Number of IB Schools by Geographic Designation (July 2008)*

IB regional designation	Number of schools
IB Africa/Europe/Middle East (IBAEM)	89
IB Asia-Pacific (IBAP)	121
IB North America & Caribbean (IBNA)	182
IB Latin America (IBLA)	54
Total Number of IB PYP schools worldwide	443

*Note.* This table represents the numbers and IB designations employed for this study.

The schools identified for participation in this study represented 75 different countries around the world (Appendix D). Given the cross-national network of IB

schools, it is possible that the degrees of difference between and among the dimensions of global-mindedness may be reflective of geographic location. With this in mind, the researcher investigated whether IB school location and country of birth were related to the dimensions of global mindedness. In addition, schools that have been authorized to offer the PYP since July 1998 have had a minimum of eleven years of programme implementation experience as compared to those schools that were authorized in 2008 and have been implementing for a maximum of four years. Since the IB requires that all authorized schools conduct a programme evaluation, self-study process and participate in a two-day site visit, the researcher measured whether the “number of years authorized” influences the dimensions of global mindedness. In addition, according to the IB’s programme standards and practices (IBO, 2011a), all school personnel and staff should understand the organizational philosophy and demonstrate evidence of a commitment to the development of an international-mindset. Therefore, it may be assumed that the level of understanding of international-mindedness will be further developed as compared to schools that do not offer the PYP.

### **Participant Sample and Data Collection**

All principals currently in schools authorized to offer the PYP from July of 1998 through July 2008 were invited to participate in this study based on their willingness and agreement. The IB provided a list of primary email addresses and additional contact details including school name, location, address, phone number, and year authorized for each prospective participant. It is important to note that the IB’s primary method of communication to schools occurs via electronic mail. Therefore, given the access to the

most recent email contact information along with IB's letter of support and the researcher's relationship with IB schools as a full-time staff member and IB workshop leader, the expected response rate for this study was approximately 40%.

All responses to this survey were confidential. Participants were not required to disclose names or other identifying information other than that which was specified in the 14 demographic questions. To enhance participant response, a pre-notification email, which included a letter of support from the IB (Appendix E), was sent 1 week ahead of the actual survey to emphasize the importance and legitimacy of study participation. An email blast was sent to every principal via the SNAP survey programme one week later, which included a cover letter, consent form and link to the survey. Of the 408 survey emails sent (there was some discrepancy between the number of email addresses sent by the IB and the number authorized schools), 33-email bounce backs were indicated. The remaining 375 principals who received the introductory email were able to indicate their decision regarding survey participation via the web-link provided by the SNAP survey program. If a principal did not consent to participate, a thank you message was received and no further action was required. If the principal did consent to participate, he/she was immediately directed to a web page, which allowed for immediate survey completion or the opportunity to return at a later date. The survey remained open for 1 month from the date the survey invitation was sent to all principals. To encourage participation, three electronic reminders were sent to all participants intermittently with the last reminder sent three days before the survey closed.

## **Instrumentation**

To address the four empirical research questions for this study which examined the degrees of difference of the dimensions of global-mindedness among international, primary school principals and the significant relationships across and between the 14 demographic variables (age, gender, country of birth, lived outside country of birth, travel outside country of birth, years outside country of birth, number of countries visited, primary language, second language spoken, number of languages spoken, years of teaching experience, years experience with IB, years IB authorized, IB regional location) and the subscales of the Global-Mindedness Scale (GMS), the researcher employed the use of a modified version of Hett's (1993) GMS.

The 54 question on-line survey employed for use in this study consisted of a slightly modified version of the original 30-item GMS (Hett, 1993). The modifications included the use of more neutrally worded items to illicit a broader response set (Hett, 1993). In addition, to reduce the risk of cultural bias, the researcher eliminated the identification of specific countries and other potential language bias. The researcher employed the use of a five-point continuum using the Likert-type scale of: (a) 1 = strongly disagree, (b) 2 = disagree, (c) 3 = unsure, (d) 4 = agree (e) 5 = strongly agree for survey items 1-41. All items were considered approximately equal in weight or value with total scores for the GMS (questions 1-30) ranging from 30 to 150 when negative items were reverse scored. Questions 4, 5, 9, 10, 16, 21, 25, 27, and 29 on the GMS were reverse coded as they were identified as negative items related to the development of global-mindedness. All sub-scale scores for the five dimensions of global-mindedness in

Table 3 were also considered approximately equal in weight or value with total scores reported.

Table 3

*Dimensions of GMS Subscale Items and Range*

Subscale	Number of items	Range of scores	Item number
Responsibility	7	7-35	2,7,12,18,26,26,30
Cultural pluralism	8	8-40	1,3,8,13,14,19,24,27
Efficacy	5	5-25	4,9,15,20,28
Global centrism	5	5-25	5,10,16,21,29
Interconnectedness	5	5-25	6,11,17,22,25

To address research question 4 and investigate the relationships between the attributes of the IB learner profile and the five dimensions of global-mindedness, survey items 31-41, consisted of 10 questions and statements similar in format, language and Likert-type response scale to Hett's (1993) GMS items. These ten items were derived from the definitions of the ten IB learner profile attributes (caring, open-minded, thinker, balanced, risk-taker, knowledgeable, principled, communicator, inquirer, reflective) and were used to identify the potential correlations between Hett's (1993) five dimensions of global-mindedness as defined through the IB learner profile (IBO, 2007a). All items from this section were considered approximately equal in weight or value with overall scores ranging from 10 to 50 when reverse scored. To ensure content validity for the questions related to the attributes of international-mindedness, survey items 31-41 were pre-tested on a sample population of international, primary school educators (Appendix G). To address research questions 2 and 3 of this study, items 41-54 of the on-line survey included 14 demographic questions regarding personal and professional experiences as

self-reported by study participants. The results from each of the 14 demographic characteristic items were compared to each of the five subscales of the GMS during the data analysis process.

### **Internal Consistency Reliability**

According to Hett (1993), the GMS was initially developed to measure student attitudes related to their sense of connection to, interest in, and responsibility for the global community and to identify the types of behaviors that were related to this perspective. The first draft of the Global-Mindedness Scale (GMS) was a theoretically multidimensional instrument consisting of 46 items developed to measure the global attitudes of graduate students (Hett, 1993). During instrument development, four dimensions of global-mindedness emerged (a) interconnectedness of humanity, (b) cultural pluralism, (c) ethic of responsibility/care, (d) futurist orientation with initial subscales containing between 8 and 15 items which also included 18 negative (not globally-minded) items (Hett, 1993).

A content validity index (CVI) of .88 was established for the GMS by a panel of four content judges. Ninety-one items, including attitudes and behaviors, were submitted to the judges for review. Of those, 46 attitudinal items and 18 behavioral items remained after removing items that did not meet the minimum criteria (Hett, 1993). In addition to this, a pilot study was conducted on a sample of six graduates, with the final research sample consisting of 396 undergraduate students who completed the GMS. According to Hett (1993) internal consistency reliability alphas were obtained for the total scale and each of the four dimensions. The Cronbach's alpha for the overall tool was .96 with

alphas for the subscales ranging from .70-.79. In addition, a five factor principal component analysis was conducted that included orthogonal varimax rotations to ensure factors rotated so items load significantly on only one factor and that only larger, more important factors are considered and remain independent of one another (Hett, 1993). The principal component analysis with orthogonal varimax rotation produced an eigenvalue for each factor, with the first factor analysis producing 13 eigenvalues of 1.0 or more, which accounted for 57.7% variance from the first principal component factor analysis of the 46-item GMS (Hett, 1993). The 13 emerging factors reflected Hett's (1993) originally proposed dimensions; however, greater distinctions between categories were noted.

Hett (1993) conducted a second principal component analysis with orthogonal varimax rotation employing a seven-factor approach, which resulted in seven eigenvalues over 1.00, thereby explaining 42.5% of the variance while still reflecting the dimensions originally proposed for the GMS. A third principal component factor analysis on the 43-item scale was performed which again employed a seven-factor approach and resulted in the decision to remove items that were not functioning adequately. This resulted in a fourth factor analysis requesting a six-factor solution on the remaining 39 items of the GMS (Hett, 1993). While four of the factors remained quite stable, two factors reflecting cultural interest and pluralism were identified as less consistent with a much lower reliability alpha resulting in item deletion and the decision to restructure items related to cultural difference into one more cohesive factor (Hett, 1993). The fifth factor analysis was performed on 31 items and resulted in a five-factor solution. According to Hett, item

18 which addressed ethnicity did not load adequately on a factor and was deleted resulting in a 30-item scale with five dimensions reporting eigenvalues above 1.0 accounting for 46.2% variation. Hett noted that the five factors on the final instrument, identified in Table 4 were conceptually distinct and easily identified and although the reliability of the final instrument was lower than the original 46-item scale, this reduced rating may be a result of the fact that longer tests tend to be more reliable.

Table 4

*Five-Factor Reliability Analysis of Hett's Global-Mindedness Scale*

Subscale	Number of items	Standardize item alpha
Responsibility	7	.80
Cultural pluralism	8	.75
Efficacy	5	.72
Global centrism	5	.65
Interconnectedness	5	.70
Total for GMS	30	.90

Hett (1993) reported the use of the Spearman Brown prophecy formula to confirm the level of reliability for the overall tool as .93 had the final scale contained 46 items. The final version of the GMS was well within established parameters for accepting the results of a factor analysis as evidenced by the retention of all but one item retained loading at a minimum level of .35 with a range of the corrected inter-item totals above the minimum of .30 (Hett, 1993).

In addition to conducting a reliability analysis, Hett determined the dimensionality of the GMS through the calculation of Pearson product-moment correlation coefficients. According to Hett (1993), moderate correlations between



subscales ranged from .34 to .52 indicated that the Global Mindedness Scale (GMS) was a multidimensional instrument and that each of the emerging five factors addressed a different and unique aspect of global-mindedness. In terms of convergent validity, Hett reported significant correlations of .65 significant at the .001 levels, were established between the reduced 30-item GMS with the Chauvinism subscale (reverse-scored) of the Global Understanding Project (Barrows et al., 1981) in addition to a lower positive correlation of .32, significant at the .01 levels with Yachimowicz's (1988) International Concern subscale, which was also adapted from the Global Understanding Project (Hett, 1993).

### **Survey Procedures**

All primary data were collected via an electronic survey through the use of SNAP survey software to facilitate research survey administration, data collection and data management. The GMS (Appendix H) offers a singular formant and will provide measures of the dimensions of global-mindedness as self-reported by school leaders. An introductory letter including a letter in support of the study from the IB was sent to all participants via electronic mail to assist with participant response. Although there are three official working languages within the IB, English, French, and Spanish, only the English version of this study will be employed. As the researcher was not able to determine whether each participant was fluent in English, this may have affected the validity as well as the response rates and is therefore noted as a limitation of this study. In addition, according to Hett (1993), graduate students with international experience, second language proficiency, interaction with international students and experience with

global studies courses or activities exhibited significant, positive correlations related to higher levels of global-mindedness. It is therefore an assumption of this study that due to their experience with the International Baccalaureate (IB) and the nature of international education, the participant sample of international, primary school principals may exhibit characteristics or experiences that previous research has positively correlated with Hett's (1993) dimensions of global-mindedness.

### **Analysis of Data**

To analyze data for this study, four empirical research questions were reviewed. Each question generated a hypothesis in null form. The four research questions generated 21 hypotheses in null form. The questions and corresponding null hypotheses for this study were:

Q1: What are differences across the dimensions of global-mindedness for principals of international, primary schools?

H<sub>0</sub>1: There is no significant difference in the mean scores across the dimensions of the GMS among principals of international, primary schools.

Q2: What are the relationships between demographic variables and the dimensions of global-mindedness?

H<sub>0</sub>2: There is no significant relationship between the demographic variable of gender and the dimensions of global-mindedness.

H<sub>0</sub>3: There is no significant relationship between the demographic variable travel outside country of birth and the dimensions of global-mindedness.

H<sub>0</sub>4: There is no significant relationship between the demographic variable lived outside country of birth and the dimensions of global-mindedness.

H<sub>0</sub>5: There is no significant relationship between the demographic variable of second language spoken and the dimensions of global-mindedness.

H<sub>0</sub>6: There is no significant relationship between the demographic variable primary language and the dimensions of global-mindedness.

H<sub>0</sub>7: There is no significant relationship between the demographic variable of number of languages spoken and the dimensions of global-mindedness.

H<sub>0</sub>8: There is no significant relationship between the demographic variable of age and the dimensions of global-mindedness.

H<sub>0</sub>9: There is no significant relationship between the demographic variable of country of birth and the dimensions of global-mindedness.

H<sub>0</sub>10: There is no significant relationship between the demographic variable length out of country of birth and the dimensions of global-mindedness.

H<sub>0</sub>11: There is no significant relationship between the demographic variable of number of countries visited and the dimensions of global-mindedness.

H<sub>0</sub>12: There is no significant relationship between the demographic variable of years experience in education and the dimensions of global-mindedness.

H<sub>0</sub>13: There is no significant relationship between the demographic variable of years with IB and the dimensions of global-mindedness.

H<sub>0</sub>14: There is no significant relationship between the demographic variable of years IB authorized and the dimensions of global-mindedness.

H<sub>0</sub>15: There is no significant relationship between the demographic variable of IB regional location and the dimensions of global-mindedness.

Q3: What are the relationships between a model including all demographic variables and the dimensions of global-mindedness?

H<sub>0</sub>16: There is no significant relationship between a model including all demographic variables and the dimensions of global-mindedness.

Q4: How do the dimensions of global-mindedness relate to the attributes of international-mindedness as defined by the International Baccalaureate's (IB) learner profile?

H<sub>0</sub>17: There is no significant relationship between the attributes of the IB learner profile and the dimension of cultural pluralism.

H<sub>0</sub>18: There is no significant relationship between the attributes of the IB learner profile and the dimension of efficacy.

H<sub>0</sub>19: There is no significant relationship between the attributes of the IB learner profile and the dimension of global centrism.

H<sub>0</sub>20: There is no significant relationship between the attributes of the IB learner profile and the dimension of interconnectedness.

H<sub>0</sub>21: There is no significant relationship between the attributes of the IB learner profile and the dimension of responsibility.

The five dimensions of the GMS are responsibility, efficacy, global centrism, interconnectedness, and cultural pluralism. Together, these five subscales comprise a full range of behaviors related to global-mindedness that are measured by the GMS (Hett,

1993). The rating results for the GMS from participants will be reported using the five dimensions (subscales) of global-mindedness. The primary task of this study was to measure the variations across the subscales of the GMS for the leadership of international, primary schools as well as the significant relationships between the contextual factors of: gender, age, country of birth, experience abroad, additional language ability, years of experience in education, years of experience in IB, years authorized and IB regional location. Results of the on-line survey were automatically tabulated via the SNAP survey programme as each participant responded. Survey data was downloaded as an MS Excel file and transferred to the Predictive Analytics Software (PASW). Statistical data was recoded and analyzed via PAWS with descriptive and internal reliability statistics calculated for each sub-score and presented as frequencies or means with standard deviations as appropriate. The following procedures and test for statistical analysis were employed to answer the four research questions:

To address research question 1, the degrees of difference related to dimensions of global-mindedness were measured through the use of the GMS and the identification of the aggregate means scores for the five dimensions of global-mindedness as well as the aggregate mean for total overall scores on the GMS. To determine differences across the dimensions of global-mindedness for principals of international, primary schools a multivariate repeated measures test was conducted for each of the five subscales of the GMS (cultural pluralism, efficacy, global centrism, interconnectedness, responsibility).

To compare the five subscales of the GMS by demographic variables for question two, independent *t*-tests were conducted to compare between measures for each

demographic variable (gender, travel outside country of birth, lived outside country of birth, primary language spoken and second language spoken) relative to the five subscales of the GMS. When comparing demographic variables with more than two means (age, country of birth, number of languages spoken, number of countries visited, length of time outside country of birth, years of experience in education, years of experience with IB, years IB authorized, and IB regional location), the researcher conducted an Analysis of Variance (ANOVA) using alpha of .05. A summary of the statistical analyses employed is presented in Table 5.

Table 5

*Statistical Analysis Employed for Research Question 2*

Demographic variable	Statistical analysis
Gender	Independent <i>t</i> -test
Travel outside country of birth	Independent <i>t</i> -test
Lived outside country of birth	Independent <i>t</i> -test
Primary language	Independent <i>t</i> -test
Second language spoken	Independent <i>t</i> -test
Age	ANOVA
Country of birth	ANOVA
Number of countries visited	ANOVA
Length outside country of birth	ANOVA
Number of languages spoken	ANOVA
Years experience with IB	ANOVA
Years IB authorized	ANOVA
IB regional location	ANOVA

To determine the relationships between a model including all demographic variables and the dimensions of global-mindedness and address question three of this study, a regression analysis was conducted using each of the five subscales of the GMS (cultural pluralism, efficacy, global centrism, interconnectedness, responsibility) as the

dependent variables and the demographic characteristics of (gender, age, country of birth, travel outside country of birth, number of countries visited, length of time outside country of birth, primary language spoken, number of languages spoken, years in education, years with IB, years IB authorized and IB region) as the independent variables.

To determine the relationships between and the dimensions of global-mindedness and the attributes of the IB learner profile (balanced, caring, communicator, knowledgeable, inquirer, open-minded, principled, risk-taker, reflective, thinker) Pearson's correlation was conducted using each of the five subscales of the GMS (cultural pluralism, efficacy, global centrism, interconnectedness, responsibility) as the dependent variables and the demographic characteristics of (gender, age, country of birth, travel outside country of birth, number of countries visited, length of time outside country of birth, primary language spoken, number of languages spoken, years in education, years with IB, years IB authorized and IB region) as the predictor variables.

## CHAPTER 4. DATA ANALYSIS

The purpose of this exploratory study was to investigate the differences across Hett's (1993) five dimensions of global-mindedness (cultural pluralism, efficacy, global centrism, interconnectedness, responsibility) for principals of international, primary schools. Using a quantitative, non-experimental research design that employed a modified version of Hett's Global-Mindedness Scale (GMS), this study also examined the relationships between and across the dimensions of global-mindedness for the demographic variables of gender, age, experience abroad, second language ability, years of teaching experience, years with International Baccalaureate (IB), years IB authorized and IB regional location. The researcher sought to determine the relationships between the five dimensions of global-mindedness and the ten attributes of the International Baccalaureate's (IB) Learner Profile.

The target population for this study consisted of international, primary school principals currently located in schools around the world authorized to offer the IB's Primary Years Programme (PYP). As an employee of the International Baccalaureate, the researcher used this group as a means of a purposeful sample with access provided through the research division of the organization. Snap Survey software was employed for survey administration, management and data collection. Data were organized by research hypotheses and correlational analyses were conducted using version 19.0 of Statistical Package for the Social Sciences (SPSS). The researcher employed the use of a



pre-notification email including a letter of support from the IB and an invitation outlining the voluntary nature of the study. One week after the pre-notification email was sent, an invitation to participate was sent to all prospective participants which also required consent to participate through the selection of a hyperlinked URL address to begin the survey. Once consent was granted, the time commitment to complete the fifty-four-item survey was approximately ten minutes with a survey return window of one month. During this time, three reminder emails were sent to all participants to encourage participation in the study.

This chapter provides information regarding statistical results beginning with survey instrument analysis, descriptive statistics and an outline of the responses to the four research questions and corresponding 21 null hypotheses. In addition, this chapter provides information regarding the statistical methods employed for analysis and also identifies statistical output including effect size to assess the strength of relationships between the variables.

### **Measurement Tool**

The Global Mindedness Scale (GMS) developed by Hett (1993) defines global-mindedness as “a worldview in which one sees oneself as connected to the world community and feels a sense of responsibility for its members and reflects this commitment through demonstrated attitudes, beliefs, and behaviors” (p. 143). Through her research and the development of an instrument designed to measure the presence of global-mindedness, Hett identified five dimensions, which included cultural pluralism, efficacy, global centrism, interconnectedness, and responsibility.

The 54 question electronic survey was comprised of 30 global-mindedness questions (items 1-30) using a modified version of Hett's (1993) Global-Mindedness Scale (GMS), ten international-mindedness questions (items 31-40) related to the attributes of the IB's Learner Profile (Appendix A) and 14 demographic questions (items 31-54) regarding personal and professional experiences as self-reported by international, primary school principals (study participants). To ensure content validity for the questions related to international-mindedness, items 31-40 were pre-tested on a sample population of international, primary school educators (Appendix G). Each question was then revised for appropriateness and clarity based on participant response. The researcher employed a five point Likert-type scale with 5 representing strongly agree through 1 representing strongly disagree, to measure the dimensions of global-mindedness and the attributes of international-mindedness. Appendix H provides the instrument for global-mindedness (GMS) utilized in this study. The GMS (items 1-30) contained six reversed items that required a recoding of values to provide orientation of the same direction. The process for recoding was conducted using statistical software. This procedure was repeated for two of the reverse scored items related to international-mindedness and the attributes of the IB Learner Profile (items 44-54).

### **Scale Reliability**

For the purposes of this study, the researcher accepted the validity of the five dimensions as an appropriate metric to provide data on the behaviors, attitudes and values that have implications for school leadership. To provide further information related to internal consistency, a reliability analysis was conducted to determine whether each item

of the GMS remains consistent with one another (Table 6). Cronbach’s alpha, a measure of internal consistency used to determine the relationship of the items in each subscale as a group, was calculated for each dimension of global-mindedness with lower, although acceptable results when compared to Hett’s (1993) findings.

Table 6

*Standardized Item Alpha Comparisons for Hett and Hersey*

Subscale	Standardized item alpha		
	Items	Hett (1993)	Hersey (2011)
Cultural pluralism	8	.75	.72
Efficacy	5	.72	.66
Global centrism	5	.65	.57
Interconnectedness	5	.70	.63
Responsibility	7	.80	.70

**Response Rate**

The electronic survey used to measure the presence of the dimensions of global-mindedness and the relationships to demographic variables and the attributes of international-mindedness among international, primary school principals was disseminated to 408 IB Primary School principals around the world. According to Snap survey management, 33 total email “bounce”-backs were recorded resulting in a total of 375 prospective participants. Of the 375 on-line surveys received, thirty principals declined to participate. A Snap survey summary reported a total of eight partial downloads with 222 non-responders, which therefore reported a total of 115 usable responses, resulting in an overall response rate of 31%.

## **Descriptive Statistics**

The following descriptive statistics were used to identify and analyze the characteristics of survey participants. Descriptions of international, primary school leaders were based solely on the individuals that participated in this study. The following descriptions allowed for comparisons between demographic characteristics of the sample population representing 22 different countries of birth and four IB regional locations as designated by the researcher (IB Africa, Europe & Middle East, IB Asia Pacific, IB Latin America, IB North America). In addition, comparisons were made between the five dimensions of global-mindedness (cultural pluralism, efficacy, global centrism, interconnectedness, responsibility) and the attributes of international-mindedness as defined by the International Baccalaureate's Learner Profile (Appendix A).

### **Study Sample**

The unit of analysis for this study consisted of primary school principals currently located in schools authorized to offer the IB's Primary Years Programme (PYP) from the period of July 1998 through July 2008. Prospective respondents were selected as a means of a purposeful sample within the 408 authorized IB World School locations. An analysis of the responses as self-reported by participants identified that the majority of principals in authorized IB PYP schools were females (61%) with 69% of the total group noting 22 or more years of experience in education. The data also indicated some homogeneity in responses, therefore indicating a potential lack related to the "international" pool of school leaders. For example, descriptive data reported in Table 7 indicated a preponderance of English-speaking participants with 85% of international

school principals reporting English as their primary speaking language and 56% reporting that they did not speak a second language. This finding was not completely unexpected with 58% of the principals indicating they were born in an English-speaking country and 36% reporting their school was located in the United States, Canada or the Caribbean. These results appear to match the overall demographics of IB schools with the United States (298), Australia (77) and Canada (58) reporting the largest number of authorized schools worldwide in addition to the IB requirement that the school communicate in one of the three IB working languages of English, Spanish or French (IBO, 2011).

The descriptive data also reported an interesting bimodal distribution related to travel experiences and length of time outside country of birth. Although 99% of the principals indicated they had traveled outside of their country of birth with the majority (38%) self-reporting they had visited 20 or more countries, 37% of the participants noted that they had spent no time outside of their country of birth, which may indicate a lack of extensive or lengthy travel experiences. Of additional interest are the data reporting a majority of principals (63%) indicating they had lived outside of their country of birth. This data may suggest a population, which is highly mobile due to the nature of international educational programs or a group, which possesses an intrinsic motivation, which takes pleasure in exploring or understanding other cultures (cultural pluralism).

Table 7

*Descriptive Statistics for International Primary School Principals (n = 115)*

Variable	Frequency	%	Mean	SD
Gender				
Male	61	53	1.53	.501
Female	54	47		
Age				
32-41 years	14	12	4.49	.902
42-53 years	49	43		
54-59 years	34	30		
60 or more years	18	16		
Country of birth <sup>a</sup>			2.11	1.22
United States	46	40		
United Kingdom	19	16		
Australia	15	13		
Canada	7	6		
Mexico	5	4		
New Zealand	4	3		
India	2	2		
The Netherlands	2	2		
Argentina	2	2		
Other countries	1	1		
Country of birth <sup>b</sup>	58	50		
North America	7	6		
South America	29	25		
Europe and Asia	21	18		
Australia and Africa				
Travel outside country of birth			1.01	.093
Yes	114	99		
No	1	1		
Number of countries visited			2.70	1.20
None visited	1	1		
1-6 countries	25	22		
7-12 countries	29	25		
12-19 countries	17	15		
20 or more countries	43	38		
Lived outside country of birth			1.37	.486
Yes	72	63		
No	43	37		

Table 7

*Continued*

Variable	Frequency	%	Mean	SD
Length outside country of birth			3.87	1.23
None	43	37%		
Less than 1 year	9	8%		
1-6 years	10	9%		
7-15 years	11	10%		
16-20 or more years	42	36%		
Fluency in a second language			1.56	.499
Yes	51	44%		
No	64	56%		
Number of languages spoken			.63	.843
One language	64	56%		
Two languages	35	30%		
Three or more languages	16	9%		
Primary Language			1.15	.359
English	96	85%		
Other languages	17	15%		
Spanish	9			
German, Dutch	2			
French, Hindi, Kannada	1			
Arabic	1			
Number of years in education			4.62	.615
10-15 years	8	7%		
16-21 years	28	24%		
22 or more years	79	69%		
Number of years with IB			2.53	.82
3 years or less	10	9%		
4-9 years	48	15%		
10-15 years	43	37%		
16-22 or more years	14	12%		
Number of years IB authorized			2.65	.817
0-3 years	3	3%		
4-7 years	56	50%		
8-10 years	34	30%		
11 or more years	22	19%		
IB regional location			2.59	1.23
IB Africa, Europe and Middle East	31	27%		
IB Asia Pacific	26	23%		
IB Latin America	17	15%		
IB North America	41	36%		

<sup>a</sup> Self-reported country of birth<sup>b</sup> Designated country used for analysis purposes

## Hypotheses Testing

To address the four research questions that guided this study, 21 corresponding null hypotheses were tested to determine the differences between the five dimensions of global-mindedness (cultural pluralism, efficacy, global centrism, interconnectedness, responsibility) and any meaningful relationships between and among demographic variables and each of the five subscales of the GMS. In addition, the study investigated whether there was a relationship between the dimensions of global-mindedness and the attributes of international-mindedness (balanced, communicator, inquirer, risk-taker, thinker, reflective, caring, principled open-minded, knowledgeable) as defined by the IB Learner Profile (items 44-54).

The first research question asked: What are differences across the dimensions of global-mindedness for principals of international, primary schools?  $H_01$ : There is no significant difference in the mean scores across the dimensions of the GMS among principals of international, primary schools. To determine differences across the dimensions of global-mindedness for principals of international, primary schools ( $n = 115$ ), a multivariate repeated measures test (Hotelling's  $T^2$ ) was conducted for the five subscales of the GMS although a small effect size of 7%. Significant differences were not reported for the dimensions of efficacy and interconnectedness. A post-hoc analysis (Hotelling's  $T^2$ ) confirmed all means were in the same order as the SPSS output indicating significant difference for all means except for the dimensions of efficacy and interconnectedness. The data therefore reject the null hypothesis.



The second research question asked: What are the relationships between demographic variables (gender, travel outside country of birth, lived outside country of birth, second language spoken, primary language, number of languages spoken, country of birth, length outside country of birth, number of countries visited, years experience in education, years experience with IB, years IB authorized, IB regional location) and the dimensions of global-mindedness? To determine if there was a relationship across each of the five dimensions of global-mindedness and the fourteen demographic variables defined in Table 8, the researcher conducted two different statistical tests, which included independent *t*-tests and analysis of variance (ANOVA). Independent *t*-tests were conducted to provide between comparisons relative to the GMS while an ANOVA was conducted for those demographic variables with more than two means to compare.

Table 8

*Demographic Variable Definitions and Statistical Test Employed*

Abbreviation	Definition	Analysis
Gender	Participant gender (male or female)	<i>t</i> -test
Travel out of COB	Travel experience outside COB	<i>t</i> -test
Lived outside COB	Years outside COB	<i>t</i> -test
Primary language	Primary language spoken	<i>t</i> -test
Second language	Second language speaking ability	<i>t</i> -test
Number of languages	Number of languages spoken fluently	ANOVA
Age	Participant age in years	ANOVA
Country of birth	Country of birth	ANOVA
Length outside COB	Number of years out of COB	ANOVA
Countries visited	Number of countries visited outside COB	ANOVA
Years in education	Number of years experience in education	ANOVA
Years with IB	Number of years of IB experience	ANOVA
Years IB authorized	Number of years IB authorized	ANOVA
IB region	Regional location of school	ANOVA

Note: COB = Country of birth

## Demographic Variables and the GMS

Independent *t*-tests were conducted to compare demographic variables that were dichotomous (gender, travel outside country of birth, lived outside country of birth, primary language spoken and second language spoken) relative to the five dimensions of global-mindedness as represented by each of the five subscales of the GMS. When comparing the mean scores of the variables indicated in Tables 11-16, the Levene's test was used to test the equal variance null hypothesis. For research question 2, five null hypotheses were tested employing the use of an independent *t*-test:

Gender and GMS H<sub>0</sub>2: There is no significant relationship across the demographic variable of gender and the dimensions of global-mindedness.

An analysis of the data identified in Table 9 indicated that there is a significant gender difference for the dimension of efficacy reporting ( $p < .05$ ). Specifically, female principals scored higher on efficacy ( $M = 21.09$ ) than their male counterparts ( $M = 20.96$ ). There were no other significant differences found for the variable of gender. The null hypothesis that there is no significant relationship across the five subscales of global-mindedness between males and females is therefore rejected.

Table 9

### *Results of t-test for Gender Items*

Subscale	Male		Female		<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Cultural Pluralism	35.14	3.18	36.39	2.72	-2.240	105	.505	.21
Efficacy	20.96	1.94	21.09	2.60	-.318	110	.007*	.03
Global Centrism	18.66	2.84	18.47	2.58	.376	108	.260	.04
Interconnectedness	21.46	2.53	21.86	2.08	-.931	103	.135	.09
Responsibility	28.16	3.28	28.75	3.00	-.995	108	.794	.09

*Note:* Male  $n = 54$ ; Female  $n = 6$

Travel Outside Country of Birth and GMS H<sub>03</sub>: There is no significant relationship across the demographic variable of travel outside of country of birth and the subscales of global-mindedness.

An analysis of the data indicated that only one participant had not traveled outside of his/her country of birth. The majority of survey participants (99%) reported that they had traveled outside of their country of birth; therefore, it was not possible to test this hypothesis due to the limited variance in responses.

Lived Outside Country of Birth and GMS H<sub>04</sub>: There is no significant relationship across the demographic variable of lived outside country of birth and the dimensions of global-mindedness.

An analysis of the data presented in Table 10 indicated the two groups, that is, those who have lived outside of their country of birth and those who have not lived outside their country of birth did not differ significantly across the five subscales of global-mindedness with all subscales reported p-values greater than .05. The data therefore fail to reject the null hypothesis.

Table 10

*Results of t-test for Lived Outside Country of Birth Items*

Subscale	Yes		No		<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Cultural pluralism	35.91	3.12	35.62	2.81	.511	96	.712	.05
Efficacy	21.41	1.96	20.39	2.70	2.160	69	.263	.22
Global centrism	19.30	2.35	17.32	2.80	3.880	77	.212	.38
Interconnectedness	21.81	2.22	21.44	2.43	.831	82	.166	.08
Responsibility	28.62	3.03	28.23	3.03	.657	93	.791	.06

*Note:* Yes *n* = 72; No *n* = 43

Second Language Spoken and GMS H<sub>05</sub>: There is no significant relationship across the demographic variable of second language spoken and the dimensions of global-mindedness.

International school principals reported if they spoke a second language fluently. An analysis of the data in Table 11 indicated that there is a significant difference for the dimensions of cultural pluralism ( $p = 0.022$ ) and interconnectedness ( $p = .041$ ). Specifically, international principals who reported they speak a second language scored higher on cultural pluralism ( $M = 21.33$ ) and interconnectedness ( $M = 21.81$ ) than those principals reporting they did not speak a second language. Therefore, the null hypothesis is rejected that there is no significant relationship across the five subscales of global-mindedness between principals who speak a second language and those who do not. There were no other significant differences found for the variable of second language spoken. These data infer that second language ability is related to the subscales of cultural pluralism and interconnectedness for international school principals.

Table 11

*Results of t-test for Second Language Spoken Items*

Subscale	Yes		No		<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Cultural Pluralism	36.78	2.33	35.03	3.25	3.36	112	.011*	.31
Efficacy	21.33	2.13	20.79	2.43	1.25	223	.830	.12
Global Centrism	19.01	2.64	18.20	2.70	1.63	108	.655	.15
Interconnectedness	22.05	1.95	21.37	2.25	1.63	113	.041*	.16
Responsibility	29.07	3.26	28.00	2.98	1.83	103	.526	.17

*Note:* Yes  $n = 51$ ; No  $n = 64$

Primary Language Spoken and GMS H<sub>0</sub>6: There is no significant relationship across the demographic variable of primary language spoken and the dimensions of global-mindedness.

International school principals reported their primary (mother-tongue) language. An analysis of the data identified in Table 12 indicates the majority of principals (96) selected English as their first language with the remaining seventeen respondents reporting they spoke a language other than English. There were no significant differences for the demographic variable of primary language. Therefore, the null hypothesis was rejected that there is no relationship between the five subscales of global-mindedness for those who speak English and those who speak a language other than English. The results of this data indicated that the primary speaking language of international schools principals is not a predictor for the GMS. It is important to identify the potential lack of power in testing the null hypothesis due to the limited number of participants who reported speaking a language other than English (16 participants).

Table 12

*Results of t-test for Primary Language Spoken Items*

Subscale	English		Other language		<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Cultural pluralism	35.57	3.10	37.23	1.98	-2.880	32	.056	.33
Efficacy	21.07	2.31	20.88	2.39	.304	22	.489	.04
Global centrism	18.65	2.69	17.88	2.82	1.048	21	.774	.14
Interconnectedness	21.75	2.30	21.47	2.29	.462	22	.740	.06
Responsibility	28.42	2.93	29.35	3.70	-.977	20	.075	.14

*Note:* English *n* = 96; Other language *n* = 17

To determine the presence of global-mindedness among international school principals and to identify whether differences existed between the demographic variables

of age, country of birth, number of languages spoken, number of countries visited, length of time outside country of birth, years of experience in education, years of experience with IB, years IB authorized, and IB regional location for each of the five subscales of the GMS, the researcher conducted an Analysis of Variance (ANOVA) using  $\alpha = .05$ .

Number of Languages Spoken and GMS H<sub>0</sub>7: There is no significant relationship between the demographic variable of number of languages spoken and the dimensions of global-mindedness.

International school principals reported the number of spoken languages by choosing between the groupings two through six or more languages spoken fluently. For analysis purposes, the data were recoded to indicate if the principals spoke two languages or three or more languages. An analysis of the data indicated the two groups, i.e., those principals reporting they spoke two languages fluently and those who spoke three or more languages fluently did not differ significantly on any subscale as reported in Table 13. The data therefore failed to reject the null hypothesis that there is no relationship between the number of languages spoken and the dimensions of global-mindedness.

Table 13

*Associations for Number of Languages Spoken Items*

Dimensions	<i>M</i>	<i>SD</i>	<i>N</i>	Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	$\eta^2$
Cultural Pluralism	35.80	3.00	115	Between	20.659 <sup>a</sup>	2	10.329	1.151	.320	.020
Efficacy	21.03	2.30	115		2.552 <sup>a</sup>	2	1.276	.236	.790	.086
Global Centricism	18.56	2.69	115		4.891 <sup>a</sup>	2	2.445	.332	.718	.006
Interconnectedness	21.68	2.30	115	Within	24.85 <sup>a</sup>	2	12.42	2.39	.095	.041
Responsibility	28.74	3.14	115	Total	34.04 <sup>a</sup>	2	17.02	1.74	.179	.030
Total			115							

Age and GMS H<sub>0</sub>8: There is no significant relationship between the demographic variable of age and the dimensions of global-mindedness.

The demographic variable of age as reported by international, primary school principals was divided into four categories with each age range being measured against the dimensions of GM. As shown in Table 14, significant differences were found among the mean scores for principals 32-41 years of age, ( $M = 27.43$ ) and principals reporting 42-53 years of age ( $M = 27.76$ ) when compared to the groupings of principals, 54-59 years old ( $M = 29.27$ ) and 60 plus years old ( $M = 29.78$ ). The mean responsibility score for with principals in the 60 plus age group was significantly than the others. Thus the null hypothesis was rejected. Differences among age groups were not significant for the cultural pluralism, global centrism efficacy or interconnectedness subscales ( $p > .05$ ).

An analysis of the  $F$  ratio indicates little more than 3 times the variation between group means as there is among cases within groups. The Partial Eta Squared was ( $\eta^2 = .082$ ) although a small effect size of 8% .

Table 14

*Associations for Age and Responsibility Items*

Age in Years	$M$	$SD$	$N$	Source	$SS$	$df$	$MS$	$F$	$p$	$\eta^2$
32-41	27.43	3.344	14	Between	92.477 <sup>a</sup>	3	30.826	3.315	.023	.082
42-53	27.76	2.288	49							
54-59	29.27	2.831	34	Within	1032.219	111	2.999			
60+	29.78	2.462	18	Total	124.696	114				
Total			115							

Note: Dependent variable: Responsibility

<sup>a</sup> R Squared - .082 (adjusted R squared = .057)

Country of Birth and GMS H<sub>0</sub>9: There is no significant relationship across the demographic variable of country of birth and the dimensions of global-mindedness

Although the variable was labeled country of birth, for purposes of analysis for the ANOVA, in order to create group sizes that were not too small, the nations of the world were recoded and divided into four regions (North America, South America, Europe/Asia, Australia/Africa). The results in Table 15 indicated a significant difference for cultural pluralism among the mean scores of the four countries of birth groups: South America ( $M = 38.28$ ), Europe/Asia ( $M = 36.41$ ), North America ( $M = 35.55$ ) and Australia/Africa ( $M = 34.85$ ). The mean cultural pluralism score for South America was significantly higher than the others. Thus the null hypothesis was rejected. The Partial Eta Squared was ( $\eta^2 = .074$ ) although a small effect size of 7% .

Table 15

*Associations for Country of Birth and Cultural Pluralism Items*

Country of Birth	<i>M</i>	<i>SD</i>	<i>N</i>	Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	$\eta^2$
North America	35.55	2.754	58	Between	76.412 <sup>a</sup>	3	25.471	2.798	.035	.074
South America	38.28	1.380	7							
Europe/Asia	36.41	2.666	28	Within	949.379	111	8.553			
Australia/Africa	34.85	3.915	21	Total	1025.791	114				
Total			115							

Note: Dependent variable: Cultural Pluralism

<sup>a</sup> R Squared = .074 (adjusted R squared = .049)

A further review of the differences between the demographic variable of country of birth and the dimensions of global-mindedness found in Table 16 also indicated a



significant difference among the mean scores of the GMS subscales for the country of birth groups: South America ( $M = 18.43$ ), North America ( $M = 17.67$ ), Australia/Africa ( $M = 19.14$ ), Europe/Asia ( $M = 19.97$ ). The mean global centrism score for the Europe/Asia grouping was significantly higher than the others. Thus the null hypothesis is rejected. Differences among country of birth groups were not significant for efficacy, interconnectedness or responsibility ( $p > .05$ ). The null hypothesis was thus rejected. The Partial Eta Squared was ( $\eta^2 = .133$ ) although a small effect size of 1%.

Table 16

*Associations for Country of Birth and Global Centrism Items*

Country of birth	<i>M</i>	<i>SD</i>	<i>N</i>	Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	$\eta^2$
North America	17.67	2.651	58	Between	110.234 <sup>a</sup>	3	25.471	5.665	.001	.133
South America	18.43	2.636	7							
Europe/Asia	19.97	2.179	29	Within	720.027	111	6.487			
Australia/Africa	19.14	2.688	21	Total	830.261	114				
Total			115							

Note: Dependent variable: Global Centrism  
<sup>a</sup> R Squared = .133 (adjusted R squared = .109)

Length Out of Country of Birth and GMS H<sub>0</sub>10: There is no significant relationship between the demographic variable of length of time outside country of birth and the dimensions of global-mindedness.

For the purposes of this study, international school principals (study participants) self-reported the number of years they had spent outside of their country of birth. A review of the differences between the demographic variable length out of country of birth

and the dimensions of global-mindedness found in Table 17 indicate a significant difference among the mean scores of the GMS subscales for the number of year groupings: Less than 1 year ( $M = 18.00$ ), 1-6 years ( $M = 18.10$ ), 7-15 years ( $M = 18.73$ ), 16-20 years ( $M = 20.24$ ). The mean global centrism score for the 16-20 year grouping was significantly higher than the others, thus the null hypothesis is rejected. Differences among length out of country of birth were not significant for efficacy, cultural pluralism, interconnectedness or responsibility ( $p > .05$ ). The Partial Eta Squared was ( $\eta^2 = .194$ ) although a small effect size of 2%.

Table 17

*Associations for Length Out of Country of Birth and Global Centrism Items*

Length out of COB	<i>M</i>	<i>SD</i>	<i>N</i>	Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	$\eta^2$
Less than 1 year	18.00	3.00	9	Between	160.761 <sup>a</sup>	4	40.190	.342	.000	.194
1-6 years	18.10	2.68	10	Within	160.761	110	6.603			
7-15 years	18.73	2.10	11							
16-20 years	20.24	1.95	42							
Total			115	Total	830.261	114				

Note: Dependent variable: Global centrism

<sup>a</sup> R Squared = .194 (adjusted R squared = .164)

Number of Countries Visited and GMS H<sub>0</sub>11: There is no significant relationship between the demographic variable of number of countries visited and the dimensions of global-mindedness.

The demographic variable of number of countries visited as reported by international, primary school principals was divided into four categories with each number grouping being measured against the dimensions of GMS. As shown in Table

18, significant differences were found among the four groupings: 1-6 countries ( $M = 17.57$ ), 7-12 countries ( $M = 17.12$ ), 12-19 countries ( $M = 19.07$ ), 20 or more countries ( $M = 19.37$ ). The mean global centrism score for the 20 or more countries visited grouping was significantly higher than the others. Thus, the null hypothesis is rejected.

Differences among number of countries visited were not significant for cultural pluralism, efficacy, interconnectedness or responsibility ( $p > .05$ ). The Partial Eta Square was ( $\eta^2 = .135$ ) although a small effect size of 1%.

Table 18

*Associations for Number of Countries Visited and Global Centrism Items*

Countries visited	<i>M</i>	<i>SD</i>	<i>N</i>	Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	$\eta^2$
1-6	17.57	2.299	7	Between	111.807 <sup>a</sup>	3	37.269	5.758	.001	.135
7-12	17.12	2.836	32							
12-19	19.07	2.510	27	Within	718.454	111	6.473			
20+	19.37	2.386	49	Total	802.261	114				
Total			115							

Note: Dependent variable: Global centrism

<sup>a</sup> R Squared = .135 (adjusted R squared = .111)

Years in Education and GMS H<sub>0</sub>12: There is no significant relationship between the demographic variable of years of experience in education and the dimensions of global- mindedness.

The demographic variable of number years of experience in education as reported by international, primary school principals was divided into three year group categories with each year group being measured against the dimensions of global-mindedness. The results reported a significant difference among the mean scores of the GMS for four of the five subscales (cultural pluralism, global centrism, interconnectedness, and

responsibility). As shown in Table 19, significant differences were found among the three years of experience in education groupings: 10-15 years ( $M = 35.37$ ), 16-21 years ( $M = 34.46$ ) and 22 or more years ( $M = 36.33$ ). The mean cultural pluralism score for the 22 or more years of experience grouping was significantly higher than the others. Thus, the null hypothesis is rejected. The Partial Eta Square was ( $\eta^2 = .072$ ) although a small effect size of 7%.

Table 19

*Associations for Years in Education and Cultural Pluralism Items*

Years in Ed	<i>M</i>	<i>SD</i>	<i>N</i>	Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	$\eta^2$
10-15	35.37	2.61	8	Between	43.509 <sup>a</sup>	2	36.754	4.323	.016	.072
16-21	34.46	3.61	28	Within	952.282	112				
22+	36.33	2.65	79	Total	1025.791	114				
Total			115							

Note: Dependent variable: Cultural Pluralism

<sup>a</sup> R Squared = .072 (adjusted R squared = .055)

Further to this finding for the demographic variable of number of years of experience in education, the information in Table 20 also reported a significant difference among the three years of experience in education groupings: 10-15 years ( $M = 19.00$ ), 16-21 years ( $M = 17.42$ ) and 22 or more years ( $M = 18.92$ ). The mean global centrism score for the grouping of 10-15 years experience was significantly higher. Thus, the null hypothesis is rejected. The Partial Eta Square was ( $\eta^2 = .058$ ) although a small effect size of 6%.

Table 20

*Associations for Years in Education and Global Centrism Items*

Years in Ed	<i>M</i>	<i>SD</i>	<i>N</i>	Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	$\eta^2$
10-15	19.00	2.00	8	Between	47.859 <sup>a</sup>	2	23.930	3.429	.039	.058
16-21	17.42	2.87	28	Within	782.401	112				
22+	18.92	2.91	79	Total	830.261	114				
Total			115							

Note: Dependent variable: Global centrism

<sup>a</sup> R Squared = .058 (adjusted R squared = .041)

Table 21 reports findings for the differences between years of experience in education and the GMS subscales. A significant difference was reported among the three years of experience in education groupings: 10-15 years ( $M = 21.12$ ), 16-21 years ( $M = 20.78$ ), and 22 or more years ( $M = 22.05$ ). The mean interconnectedness score for the grouping of 22 or more years experience in education was significantly higher. Thus, the null hypothesis is rejected. The Partial Eta Square was ( $\eta^2 = .059$ ) in generalizing the population although a small effect size of 6%.

Table 21

*Associations for Years in Education and Interconnectedness Items*

Years in Ed	<i>M</i>	<i>SD</i>	<i>N</i>	Source	Sum of squares	<i>df</i>	Mean square	<i>F</i>	<i>P</i>	$\eta^2$
10-15	21.12	2.41	8	Between	35.709 <sup>a</sup>	2	17.854	3.512	.033	.059
16-21	20.78	2.78	28	Within	569.387	112				
22+	22.05	2.02	79	Total	605.096	114				
Total			115							

Note: Dependent variable: Interconnectedness

<sup>a</sup> R Squared = .089 (adjusted R squared = .042)

Further to previous findings of significant differences reported for the demographic variable years of experience in education and the GMS subscales, Table 22

also reported significant differences among the three years of experience in education groupings: 10-15 years ( $M = 26.37$ ), 16-21 years ( $M = 27.28$ ), and 22 or more years ( $M = 29.11$ ). The mean responsibility score for the grouping 22 plus years of experience in education was significantly higher. Thus, the null hypothesis is rejected. Differences among years of experience in education groups were not significant for the dimension of efficacy ( $p > .05$ ). The Partial Eta Squared for the dimension of responsibility was ( $\eta^2 = .095$ ) although a small effect size 9%.

Table 22

*Associations for Years in Education and Responsibility Items*

Years in Ed	<i>M</i>	<i>SD</i>	<i>N</i>	Source	<i>SS</i>	<i>df</i>	<i>MM</i>	<i>F</i>	<i>P</i>	$\eta^2$
10-15	26.37	4.50	8	Between	107.132 <sup>a</sup>	2	53.566	5.896	.004	.095
16-21	27.28	3.24	28	Within	1017.564	112				
22+	29.11	2.75	79	Total	1124.696	114				
Total			115							

Note: Dependent variable: Responsibility

<sup>a</sup> R Squared = .095 (adjusted R squared = .079)

As shown in Table 23, a Post Hoc test was conducted to further analyze if any patterns existed among the three years of experience in education group. In reviewing the Post Hoc analysis, principals with 10-15 years of experience ( $M = 26.38$ ) and 16-21 years of experience ( $M = 27.29$ ) did not report a significant difference for responsibility, however, principals with 22 or more years of experience ( $M = 29.11$ ) reported significant difference from principals with 10-15 years of experience ( $M = 26.38$ ) and those with 16-21 years of experience ( $M = 27.29$ ). In measuring the strength of the relationship among years of experience in education and international, primary principal groups, it may be

inferred that principals with more years of experience in education possess higher levels of responsibility with a significant effect size of 7%.

Table 23

*Between Subject Effects for Years in Education and Responsibility Items*

Years in Ed	N	Subset	
		1	2
10-15	8	26.3750	
16-21	28	27.2857	27.2857
22+	79		29.1139
Sig. ( <i>p</i> -value)		.0675	.208

Years with IB and GMS H<sub>0</sub>13: There is no significant relationship between the demographic variable of years with IB and the dimensions of global-mindedness.

The demographic variable of number years of experience with IB was divided into four-year group categories with each group being measured against the dimensions of global-mindedness. As show in Table 24, the results indicated a significant difference among the four years with IB groupings: 3 years or less ( $M = 26.40$ ), 4-9 years ( $M = 28.14$ ), 10-16 years ( $M = 28.86$ ), 16-22 years ( $M = 30.07$ ). The mean responsibility score for the grouping 16-22 plus years of experience with IB was significantly higher. Thus, the null hypothesis is rejected. Differences among years of experience with IB groups were not significant for the dimensions of efficacy, cultural pluralism, interconnectedness and global centrism ( $p > .05$ ). The Partial Eta Square was ( $\eta^2 = .015$ ) in although a small effect size of 2%.

Table 24

*Associations for Years with IB and Responsibility Items*

Years with IB	<i>M</i>	<i>SD</i>	<i>N</i>	Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P</i>	$\eta^2$
3 or less	26.40	3.30	10	Between	91.725 <sup>a</sup>	3	30.575	3.286	.023	.015
4-9	28.10	2.92	48							
10-15	28.86	3.17	43	Within	1032.971	111				
16-22	30.07	2.89	14	Total	1124.696	114				
Total			115							

Note: Dependent variable: Responsibility

<sup>a</sup> R Squared = .082 (adjusted R squared = .057)

A Post Hoc test was conducted to analyze if any patterns existed among the four years of experience with IB groups as shown in Table 25. While principals with 3 years or less of experience with IB ( $M = 26.40$ ), 4-9 years of experience with IB ( $M = 28.10$ ) or 10-15 years of experience with IB ( $M = 28.86$ ) were not significantly different for the responsibility subscale, those principals reporting 16-22 or more years of experience with ( $M = 30.71$ ) reported a significant difference from the aforementioned groupings. In measuring the strength of the relationship among years of experience with IB and international principal groups, it may be inferred that principals with more experience with IB possess higher levels of responsibility although a small effect size of 1%.

Table 25

*Between Subject Effects for Years with IB and Responsibility Items*

Years with IB	<i>N</i>	Subset	
		1	2
3 or less	10	26.40	
4-9	48	28.10	28.10
10-15	43	28.86	28.86
16-22	14		30.71
Sig. ( <i>p</i> -value)		.116	.283



Years IB Authorized and GMS H<sub>0</sub>14: There is no significant relationship across the demographic variable of years IB authorized and the dimensions of global-mindedness.

In reviewing the mean scores of the four groupings for the demographic variable number of years IB authorized (0-3 years, 4-7 years, 8-10 years, 11 or more years) no significant differences were found among the five dimensions of the GMS with each group reporting a ( $p > .05$ ). This finding resulted in a failure to reject the null hypothesis that there is no relationship.

IB Region and GMS H<sub>0</sub>15: There is no significant relationship across the demographic variable of IB region and the dimensions of global-mindedness.

Although the variable was labeled IB region, the nations of the world were divided into four geographic groupings previously employed by the IB region (IB Africa, Europe & the Middle East, IB Asia Pacific, IB North America, IB Latin America) to designate school locations. This renaming allowed for independent data for the grouping IB Latin America that is currently identified as part of the IB Americas region. The results shown in Table 26 indicated a significant difference among the four regional groupings: IB Africa, Europe & Middle East ( $M = 35.90$ ), IB Asia Pacific ( $M = 35.153$ ), IB Latin America ( $M = 37.64$ ), and IB North America ( $M = 35.39$ ). The cultural pluralism scores for the grouping IB Latin America was significantly higher. Thus, the null hypothesis is rejected. The Partial Eta Square was ( $\eta^2 = .074$ ) although a small effect size of 7%.

Table 26

*Associations for IB Region and Cultural Pluralism Items*

IB region	<i>M</i>	<i>SD</i>	<i>N</i>	Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P</i>	$\eta^2$
Africa, Europe, Middle East	35.90	3.22	31	Between	76.059 <sup>a</sup>	3	26.353	.576	.035	.074
Asia-Pacific	35.15	3.00	26	Within	1010.06	111	8.556			
Latin America	37.64	2.05	17							
North America	35.39	2.93	41	Total	1025.79	114				
Total			115		1					

Note: Dependent variable: Cultural pluralism

<sup>a</sup> R Squared = .074 (adjusted R squared = .059)

The information in Table 27 presents findings of the Post Hoc test, which indicated if patterns existed among the four IB region groups for cultural pluralism. These data reported that international principals located in IB Africa, Europe & Middle East ( $M = 35.90$ ), IB Asia Pacific ( $M = 35.13$ ) and IB North America ( $M = 35.39$ ) were not significantly different, however, those in the IB Latin America grouping reported a significant difference ( $M = 37.64$ ). In measuring the strength of the relationship between IB region and principal groups, it may be inferred that principals in the IB Latin America region possess higher levels of cultural pluralism although a small effect size of 8%.

Table 27

*Between Subject Effects for IB region and Cultural Pluralism Items*

IB region	<i>N</i>	Subset	
		1	2
IB Asia Pacific	26	35.15	
IB North America	41	35.39	35.39
IB Africa, Europe, Middle East	31	35.90	35.90
IB Latin America	17		37.65
Sig. ( <i>p</i> -value)			.057

Further to the finding for the demographic variable of IB region, a review of the differences between IB region and the five dimensions of global-mindedness found in Table 28 also indicated a significant difference among mean scores for the IB region groupings: IB Asia Pacific ( $M = 18.46$ ), IB Latin America ( $M = 18.52$ ), IB North America ( $M = 17.51$ ) and IB Africa, Europe & Middle East ( $M = 20.06$ ). The global centrism score reported significantly higher for the IB Africa, Europe & Middle East grouping. Differences among the IB region groups were not significant for the dimensions of efficacy, responsibility and interconnectedness ( $p > .05$ ). Thus, the null hypothesis is rejected. The Partial Eta Squared was ( $\eta^2 = .139$ ) although a small effect size of 2%.

Table 28

*Associations for IB Region and Global Centrism Items*

IB region	<i>M</i>	<i>SD</i>	<i>N</i>	Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P</i>	$\eta^2$
IB Africa, Europe, Middle East	20.06	1.94	31	Between	115.449 <sup>a</sup>	3	38.483	5.976	.001	.139
IB Asia-Pacific	18.46	2.62	26							
IB Latin America	18.52	2.71	17	Within	714.812	111	6.440			
IB North America	17.51	2.78	41	Total	830.261	114				
Total			115							

Note: Dependent variable: Global Centrism

<sup>a</sup> R Squared = .139 (adjusted R squared = .116)

A Post Hoc test was conducted to further analyze if any patterns existed among the four IB region groups as shown in Table 29. In reviewing the Post Hoc analysis for the GMS subscale of global centrism, international, primary school principals located in

IB Asia Pacific ( $M = 18.46$ ), Latin America ( $M = 18.52$ ) and IB North America ( $M = 17.51$ ) did not report significant differences for global centrism. However, principals in the IB Africa, Europe & Middle East grouping did report significant difference ( $M = 20.06$ ). In measuring the strength of the relationship between IB region and international, primary principal groups, it may be inferred that principals located in the IB Africa, Europe & Middle East region possess higher levels of global centrism although a small effect size of 5%.

Table 29

*Between Subject Effects for IB region and Global Centrism Items*

IB region	N	Subset	
		1	2
IB North America	41	17.51	
IB North America	26	18.46	18.46
IB Latin America	17	18.52	18.52
IB Africa, Europe, Middle East	31	20.65	
Sig. ( $p$ -value)		.556	.165

### **Relationships Between Demographic Variables and GMS Subscales**

The third research question asked: What are the relationships between a model including all demographic variables and the dimensions of global-mindedness? Stated as a null hypothesis: There is no significant relationship between demographic variables and the dimensions of global-mindedness. To determine the relationships between demographic variables and the dimensions of global-mindedness, a regression analysis was conducted using each of the five subscales of the GMS (cultural pluralism, efficacy, global centrism, interconnectedness, responsibility) as the dependent variables and the

demographic characteristics of (gender, age, country of birth, travel outside country of birth, number of countries visited, length of time outside country of birth, primary language spoken, number of languages spoken, years in education, years with IB, years IB authorized and IB region) as the independent variables. Using a Bonferonni correction, the alpha level was set at .0036 to determine if any relationship existed between the five dimensions of global-mindedness and the corresponding demographic variables. Using the criterion of VIPs less than 10, there appeared to be no collinearity difficulties as all VIFs were smaller than 2.5. For research question 3, there was one null hypothesis to test: Differences between a model including all demographic variables and the GMS H<sub>0</sub>16: There is no significant relationship between demographic variables and the dimensions of global-mindedness.

Table 30 provides the analysis of the data reporting correlations between demographic variables and the dimensions of global-mindedness (cultural pluralism, efficacy, global centrism, interconnectedness and responsibility). The data report a significant correlation between the demographic variable of gender and the dimensions of efficacy and global centrism. The data also reflected a significant correlation between the demographic variables of age and the dimension of efficacy, country of birth and travel outside country of birth for the dimension of cultural pluralism and with all variables ( $p < .0036$ ). Length of time outside country of birth was significantly related to efficacy, interconnectedness and responsibility. Significant correlation was also found between the demographic variable of primary language spoken and the dimensions of global centrism and interconnectedness. Of special interest to the researcher were the findings for the

Table 30

*Correlations Between Principal Characteristics and GMS Subscales*

Variable	CULTPLU	EFFICAC	GLOBALCENT	INTERCONN	RESPON
Gender	.206	.025*	-.026*	.076	.067
Age	.081	.041*	.077	.142	.273
COB	-.150*	.068	.306	.125	.197
Travel out COB	.069	.162	.016*	.136	.075
Countries visited	.119	.262	.301	.173	.185
Length out of COP	.046	-.184*	-.082*	-.026*	-.025*
Primary language	.198	-.029	-.102*	-.044*	.109
Number of languages	.302	.122	.142	.166	.212
Years in education	.195	.127	.146	.179	.261
Years with IB	.125	.172	.180	.143	.316
Years IB authorized	.105	.221	.243	.096	.080
IB region	-.021*	-.101*	-.347*	-.062*	-.109*
Multiple regression	.183	.174	.208	.114	.216
Fit (12,100)	1.863	1.753	2.193	1.068	2.294

*Note.*  $N = 113$ . COB = Country of Birth; CULTPLU = Cultural Pluralism; EFFICAC = Efficacy; GLOBALCENT = Global Centrimism; INTERCONN = Interconnectedness. RESPON = Responsibility.

\* =  $p < .0036$  denotes significant correlation.

demographic variable of IB regional location, which reported significant differences between all five dimensions of global-mindedness with all variables reporting ( $p < .0036$ ). For the variables of number of countries visited, number of languages spoken, years in education, years with IB and years IB authorized, the data did not indicate significant correlations. However, the significant correlations reported for the variables

of gender, age, country of birth, travel outside country of birth, length of time outside country of birth, primary language spoken and IB region. Thus, the data rejected the null hypothesis.

### **Relationships Between GMS Subscales and International-Mindedness**

Interest in research question 4, which seeks to identify relationships between the GMS and the attributes of international-mindedness, was generated by the researcher's interest in the similarities that appeared to exist between the dimensions of global-mindedness and the attributes of the IB learner profile. To determine the relationship between each of the five dimensions of the GMS (cultural pluralism, efficacy, global centrism, interconnectedness, responsibility) and the ten attributes of international-mindedness as defined by the IB Learner Profile (balanced, communicator, inquirer, risk-taker, thinker, reflective, caring, principled open-minded, knowledgeable), the researcher utilized Pearson's correlation. Descriptive results of the correlation analyses for each of the five dimensions of global-mindedness and the attributes of the IB learner profile are shown in Tables 31-35. For research question 4 there were five null hypotheses to test:

Cultural Pluralism and IM H<sub>0</sub>17: There is no significant relationship between the dimension of cultural pluralism and the attributes of international-mindedness as defined by the IB Learner Profile.

Pearson correlation was conducted to determine if there is a relationship between the dimension of cultural pluralism and the attributes of international-mindedness as defined by the IB Learner Profile. An analysis of the data shown in Table 31 indicated that nine of the ten IB learner profile attributes (balanced, communicator, inquirer, risk-

taker, thinker, caring, principled open-minded, knowledgeable) reported a significant relationship ( $p < .05$ ). Thus, the null hypothesis is rejected. Conversely, no correlations were reported for the attributes of cultural pluralism and reflective.

Table 31

*Correlations for Cultural Pluralism and International-Mindedness (IM) Items*

	Mean	SD	Pearson correlation	Sig. (2-tailed)
1. Inquirer	4.55	.564	.322**	.000
2. Open-minded	4.49	.567	.370**	.000
3. Caring	4.53	.518	.303**	.001
4. Balanced	4.46	.566	.372**	.000
5. Risk-taker	4.06	.625	.371**	.000
6. Reflective	4.19	.771	.183	.051
7. Knowledgeable	4.47	.640	.313**	.001
8. Thinker	4.31	.717	.293**	.001
9. Principled	4.51	.640	.444**	.000
10. Communicator	3.26	1.200	.242**	.009

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

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

Efficacy and IM H<sub>0</sub>18: There is no significant relationship between the dimension of efficacy and the attributes of international-mindedness as defined by the IB Learner Profile. An analysis of the data shown in Table 32 indicated nine of the ten attributes of (balanced, communicator, inquirer, risk-taker, thinker, reflective, caring, principled, knowledgeable) reported a significant relationship ( $p < .05$ ). Therefore, the null hypothesis is rejected. Conversely, no correlations were reported for the attributes of efficacy and open-minded.

Global Centrism and IM H<sub>0</sub>19: There is no significant relationship between the dimension of global centrism and the attributes of international-mindedness as defined by the IB Learner Profile. An analysis of the data in Table 33 indicated three of the ten attributes (communicator, open-minded, knowledgeable) reported a significant



relationship. Therefore, the null hypothesis is rejected. Correlations were not reported for the attributes inquirer, caring risk-taker, balanced, reflective, thinker and principled.

Table 32

*Correlations for Efficacy and International-Mindedness (IM) Items*

	Mean	SD	Pearson correlation	Sig. (2-tailed)
1. Inquirer	4.55	.564	.449**	.000
2. Open-minded	4.49	.567	.181	.053
3. Caring	4.53	.518	.278**	.033
4. Balanced	4.46	.566	.222*	.017
5. Risk-taker	4.06	.625	.217*	.020
6. Reflective	4.19	.771	.307**	.001
7. Knowledgeable	4.47	.640	.422**	.000
8. Thinker	4.31	.717	.247**	.008
9. Principled	4.51	.640	.427**	.000
10. Communicator	3.26	1.200	.305**	.001

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

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

Table 33

*Correlations for Global Centrism and International-Mindedness (IM) Items*

	Mean	SD	Pearson correlation	Sig. (2-tailed)
1. Inquirer	4.55	.564	.108	.249
2. Open-minded	4.49	.567	.222*	.017
3. Caring	4.53	.518	.166	.076
4. Balanced	4.46	.566	.075	.427
5. Risk-taker	4.06	.625	.073	.438
6. Reflective	4.19	.771	.1129	.170
7. Knowledgeable	4.47	.640	.238*	.010
8. Thinker	4.31	.717	.157	.094
9. Principled	4.51	.640	.156	.097
10. Communicator	3.26	1.200	.240**	.010

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

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

Interconnectedness and IM H<sub>0</sub>20: There is no significant relationship between the dimension of interconnectedness and the attributes of international-mindedness as defined by the IB Learner Profile. An analysis of the data shown in Table 34 indicated that nine of the ten attributes (balanced, communicator, inquirer, risk-taker, thinker, open-

minded, caring, principled, knowledgeable) reported a significant relationship.

Therefore, the null hypothesis is rejected. Conversely, the data did not report a correlation for the attribute of reflective.

Table 34

*Correlations for Interconnectedness and International-Mindedness (IM) Items*

	Mean	SD	Pearson correlation	Sig. (2-tailed)
1. Inquirer	4.55	.564	.368**	.000
2. Open-minded	4.49	.567	.378**	.000
3. Caring	4.53	.518	.409**	.000
4. Balanced	4.46	.566	.229*	.014
5. Risk-taker	4.06	.625	.202*	.030
6. Reflective	4.19	.771	.124	.187
7. Knowledgeable	4.47	.640	.337**	.000
8. Thinker	4.31	.717	.401**	.000
9. Principled	4.51	.640	.458**	.000
10. Communicator	3.26	1.200	.257**	.005

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

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

Responsibility and IM H<sub>0</sub>21: There is no significant relationship between the dimension of responsibility and the attributes of international-mindedness as defined by the IB's Learner Profile. An analysis of the data shown in Table 35 indicated that nine of the 10 attributes of international-mindedness (inquirer, caring, balanced, reflective, thinker, principled communicator, open-minded, knowledgeable) reported a significant relationship. Thus, the null hypothesis is rejected. Conversely, the data did not report a correlation for the attribute of risk-taker.

### Chapter Summary

This study included data received from 115 international, primary school principals from twenty-two countries around the world who were located in schools authorized to offer the International Baccalaureate's Primary Years Programme (PYP).

Table 35

*Correlations for Responsibility and International-Mindedness (IM) Items*

	Mean	SD	Pearson correlation	Sig. (2-tailed)
1. Inquirer	4.55	.564	.338**	.000
2. Open-minded	4.49	.567	.309**	.001
3. Caring	4.53	.518	.295**	.001
4. Balanced	4.46	.566	.363**	.000
5. Risk-taker	4.06	.625	.182	.052
6. Reflective	4.19	.771	.310**	.001
7. Knowledgeable	4.47	.640	.326**	.000
8. Thinker	4.31	.717	.345**	.000
9. Principled	4.51	.640	.575**	.000
10. Communicator	3.26	1.200	.274**	.003

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

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

Four empirical research questions were posed and 21 corresponding null hypotheses were tested through the use of five different types of statistical analyses. The first research question sought to identify differences across the dimensions of global-mindedness for international, primary school principals. An analysis of the data indicated the presence of the five dimensions of global-mindedness within international, primary school leadership with significant differences across each of the five subscales of global-mindedness (cultural pluralism, efficacy, global centrism, interconnectedness, responsibility) thereby rejecting the null hypothesis that there are no significant differences across the subscales of global-mindedness for international, primary school principals.

Data related to research question 2 reported findings for significant relationships across demographic variables and the five subscales of the Global-Mindedness Scale (GMS). An analysis of the data showed significant relationships between the five dimensions of global-mindedness and demographic variables for international, primary school leaders. Findings for demographic variables related to personal characteristics and

experiences showed significant differences for gender and the dimension of efficacy with female principals scoring higher than their male counterparts. No other significant differences were reported for gender. The demographic variables of second language spoken reported significant differences across the subscales of the GMS for the dimensions of cultural pluralism and interconnectedness with no other significant differences. For the variable of age, significant differences were identified for the dimension of responsibility with older principals (60 or more years of age) demonstrating higher levels of responsibility than younger principals. The data also identified significant differences for the variable of country of birth for the dimensions of cultural pluralism (with South America reporting the highest mean score) and global centrism (with Europe/Asia reporting the highest mean score). Significant differences across the dimensions of the GMS were also identified for the demographic variables of length outside country of birth and number of countries visited for the dimension of global centrism with those principals indicating having spent 16-20 years outside of their country of birth and those reporting 20 or more countries visited reporting the highest mean score.

For those demographic variables related to the professional experiences of international, primary school principals, the variable years of experience in education reported significant differences across the subscales of the GMS for four of the five dimensions (cultural pluralism, global centrism, interconnectedness, responsibility) with no significant difference reported for the subscale of efficacy. Principals who reported 22 or more years of experience in education demonstrated the highest mean score for the

dimensions of cultural pluralism, efficacy, interconnectedness and responsibility. However, those principals with 10-15 years of experience demonstrated the highest mean score for the dimension of global centrism. The demographic variable of years with IB reported significant differences across the GMS subscales for the dimension of responsibility with principals reporting most experience with IB (16 or more years) demonstrating higher levels of responsibility. Differences related to school location was reported by the demographic variable of IB region, which indicated that principals located in Latin American demonstrate higher mean scores for global centrism on the GMS. In addition, the data indicated that principals in schools located in IB Africa, Europe & Middle East reported the higher mean scores for cultural pluralism, thereby indicating a tendency to appreciate the diversity of other cultures and the belief that all have something to offer.

The data also found that some of the demographic variables tested to address research question 2 did not indicate any significant difference across the five subscales of the GMS. Those variables, which did not indicate a significant difference between the five subscales of the GMS, were: lived outside country of birth, primary language spoken, number of languages spoken and years IB authorized. In addition, for the demographic variable of travel outside country of birth, the researcher could not accept nor reject the null hypothesis due to the limited variance in responses (99% of the participants indicated that had traveled outside their country of birth). In summation, an analysis of the data for research question 2 indicates that there are significant relationships across demographic variables and the five dimensions of global-mindedness

and the data therefore rejects the null hypotheses that there are no relationships across demographic variables and the subscales of the GMS.

Question 3 of this study sought to identify relationships between a model including all demographic variables and the dimensions of global-mindedness. An analysis of the data collected via regression analysis indicated that there is a relationship between the dimensions of global-mindedness and the demographic variables of gender, age, country of birth, travel outside country of birth, length of time outside country of birth, primary language spoken and location of IB region. No significant relationships were found for the demographic variables of number of countries visited, number of languages spoken, years in education, years with IB and years IB authorized. The analysis of data for question 3 supports rejection of the null hypotheses that there are no relationships between demographic variables and the dimensions of global-mindedness. Research question 4 for this study explored relationships between the dimensions of global-mindedness and the attributes of international-mindedness (balanced, communicator, inquirer, risk-taker, thinker, reflective, caring, principled open-minded, knowledgeable) as defined by the IB Learner Profile. A Pearson correlation was conducted between each of the five subscales of global-mindedness and the ten attributes of international-mindedness. The subscale of cultural pluralism reported significant correlations for all attributes of the IB Learner Profile with the exception of reflective. For the subscale of efficacy, nine attributes reported significant correlations with the exception of the attribute of open-mindedness. The subscale of interconnectedness showed significant correlations for all attributes with the exception of the attribute of

reflective which reported no significance. Similar findings were identified for the subscale of responsibility, which reported significant correlations ( $p$  value  $< .0036$ ) for all attributes of international-mindedness except for the attribute of risk-taker, which showed no significant correlations. The subscale of global centrism reported the fewest correlations to the attributes of international-mindedness when compared to the other four subscales with only the attributes of open-minded and communicator reporting significant correlations. All remaining attributes of international-mindedness reported ( $p$  value  $> .0036$ ) indicating no significant correlations. A review of the data analysis for research question 4 indicates a significant difference exists between all five dimensions (cultural pluralism, efficacy, global centrism, interconnectedness, responsibility) and the attributes of IM defined by the IB learner profile. The information in Table 36 provides a summary of the data analysis for this study. Chapter 5 will include in depth discussions of the findings, resulting conclusions and recommendations for future research.

Table 36

*Hypotheses Testing Summary*

Null hypothesis	Description	Statistical analysis	Rejected/failed to reject
H <sub>0</sub> 1:	No significant difference for principals across the subscales of the GMS	Multivariate Repeated Measures ANOVA	Reject
H <sub>0</sub> 2:	GENDER is not predictor of GM	<i>t</i> -test	Reject
H <sub>0</sub> 3:	TRVCOB is not a predictor of the GMS	<i>t</i> -test	Neither accept or reject
H <sub>0</sub> 4:	LIVOUTCOM is not a predictor of the GMS	<i>t</i> -test	Fail to reject
H <sub>0</sub> 5:	SECLANGSPOK is not a predictor of the GMS	<i>t</i> -test	Reject
H <sub>0</sub> 6:	PRIMLANG is not a predictor of the GMS	<i>t</i> -test	Fail to reject
H <sub>0</sub> 7:	NUMLANGSPOK is not a predictor of the GMS	ANOVA	Fail to reject
H <sub>0</sub> 8:	AGE is not a predictor of the GMS	ANOVA	Reject
H <sub>0</sub> 9:	COB is not a predictor of the GMS	ANOVA	Reject
H <sub>0</sub> 10:	LENOUTCOB is not a predictor of the GMS	ANOVA	Reject
H <sub>0</sub> 11:	NUMCOVI is not a predictor of the GMS	ANOVA	Reject
H <sub>0</sub> 12:	YRSINED is not a predictor of the GMS	ANOVA	Reject
H <sub>0</sub> 13:	YRSWIIB is not a predictor of the GMS	ANOVA	Reject
H <sub>0</sub> 14:	YRSIBAUTH is not a predictor of the GMS	ANOVA	Fail to reject
H <sub>0</sub> 15:	IBREG is not a predictor of the GMS	ANOVA	Reject
H <sub>0</sub> 16:	The GMS subscales are not predictors of IM	Regression analysis	Reject
H <sub>0</sub> 17:	Cultural pluralism is not a predictor of IM	Pearson correlation	Reject



Table 36

*Hypotheses Testing Summary*

Null hypothesis	Description	Statistical analysis	Rejected/failed to reject
H <sub>0</sub> 18:	Efficacy is not a predictor of IM	Pearson correlation	Reject
H <sub>0</sub> 19:	Global centrism is not a predictor of IM	Pearson correlation	Fail to reject
H <sub>0</sub> 20:	Interconnectedness is not a predictor of IM	Pearson correlation	Reject
H <sub>0</sub> 21:	Responsibility is not a predictor of IM	Pearson correlation	Reject

## CHAPTER 5. DISCUSSION AND CONCLUSIONS

This chapter begins with a brief overview of this empirical research study of the construct of global-mindedness from the perspective of principals located in schools around the world authorized to offer the International Baccalaureate's Primary Years Programme (PYP). This study is purposefully contextualized in a world that is experiencing the impact of the complex, diverse and interconnected processes of globalization that may contribute to the increasing inequalities across all facets of the human condition. As a response, this study argues for the imperative of ensuring that educational leaders are able to develop a critical, global perspective of education to recognize and take responsible action for addressing the complexities and inequalities of life in a globalized world. The discussion of findings is considered in light of the study's limitations. In addition, practical implications and contributions to theory and research are discussed. This chapter concludes with recommendations for future research and a final summary of this study.

### **Overview of Study**

The impact of globalizing forces have created challenges related to complexity, inequality, and diversity and the role of educational reform inside political, economic, and societal agendas. In addition to academic skills and the ability to communicate in more than one language, schools offering international, educational programs provide unique opportunities for the development of global thinking around ideas of shared

responsibility, interconnectedness and cultural pluralism. According to Begley (2002) the quest for international sophistication by educational leaders is not a new phenomenon. However, the complex forces of globalization are rapidly intensifying this need for quality and innovation. Educational leadership research that focuses on international values may guide future school administrative practices in shaping school culture in a rapidly changing and globalized world (Begley, 2002; Dimmock & Walker, 2000a; Hargreaves & Fink, 2006; MacBeath & Dempster, 2009; Spring, 2008; Townsend, 2007). As school leadership becomes more conscious of how personal values may serve to illuminate complex assessments of educational situations, school leaders become cultural leaders and “teachers” within and beyond the school setting. One of the first steps toward achieving this state often involves engaging in a reflection and awareness of personal belief, values and attitudes (Coles & Southworth, 2005; Sergiovanni, 2001; Speck, 1999). With this in mind, a demonstration and understanding of the dimensions of global-mindedness, as well as an identification of the tools and strategies needed to promote this multifaceted concept becomes more relevant within the context of the development of a global perspective for education.

This study was based on the work of E. Jane Hett (1993) who held that it was indeed possible to educate individuals for a global perspective (Hanvey, 1976; Hett, 1993). Through her substantial research which included a review of related empirical measures, a definition was proposed identifying global-mindedness as “worldview in which one sees oneself as interconnected to the world community and feels a sense of responsibility for its members which is reflected in attitudes, beliefs, and behaviors”

(Hett, 1993, p.143). In addition, five dimensions of global-mindedness (cultural pluralism, efficacy, global centrism, interconnectedness and responsibility), which served as the foundation for the 30-item Global-Mindedness Scale (GMS) were developed.

Prior to this study, the GMS has been replicated on numerous occasions within a variety of contexts. Following Hett (1993), Gillian (1995) and Zhai & Scheer (2004) employed the GMS to identify levels of global-mindedness for undergraduate students, faculty and administrators. Kehl (2005) utilized the GMS to compare differences between personal characteristics, general self-efficacy, and social attitudes for students who had participated in short-term or semester long study abroad programs. One of the most relevant replications of Hett's (1993) GMS as it relates to the study is Duckworth, Walker-Levy and Levy's (2005) investigation of the international-mindedness of pre- and in-service teachers. In this study, Duckworth et al. (2005) identified the terms "international-mindedness" and "global-mindedness" synonymously. This lack of clarity or distinction between the two concepts has been addressed in this study which identifies the use of the pre-fix 'international' as presuming an emphasis on the relationships between nations, rather than those based on a global perspective which demonstrates an awareness of the interrelatedness of all peoples as espoused through the five dimensions of global-mindedness. This is the first published study to utilize the GMS for the purpose of exploring the differences across the dimensions of global-mindedness (GM) outside of the United States and for the purpose of investigating school leadership. This study is also the first to explore the global-mindedness of principals within the context of IB PYP

schools around the world to initiate comparisons of the attributes of international-mindedness as defined by the IB learner profile.

### **Research Questions**

The following four research questions guided this study:

1. What are differences across the dimensions of global-mindedness for principals of international, primary schools?
2. What are the relationships between demographic variables and the dimensions of global-mindedness?
3. What are the relationships between a model including all demographic variables and the dimensions of global-mindedness?
4. How do the dimensions of global-mindedness relate to the attributes of international-mindedness as defined by the International Baccalaureate's (IB) learner profile?

### **Review of Procedures**

As an employee of the International Baccalaureate, the researcher identified this group as a means of a purposeful sample with access provided by the International Baccalaureate (IB). Although this sample of convenience was expected to produce some homogeneity in results due to the preponderance of IB PYP schools located in North American or English speaking regions of the world, due to the internationally minded nature of IB programmes, it was the intent of this study to provide data related to the characteristics that influence school leaders' personal development of global-mindedness from a transcontinental perspective. This quantitative research study employed the use

of a modified version of Hett's (1993) Global-Mindedness Scale (GMS). It examined the demographic influences on the five dimensions of the GMS by testing 14 demographic variables: gender, age, country of birth, travel outside country of birth, length of time outside country of birth, number of countries visited, primary language, second language speaking ability, number of spoken languages, years of teaching experience, years with IB, years IB authorized and IB regional location. It further tested the correlations between the five dimensions of global-mindedness and the ten attributes (balanced, communicator, inquirer, risk-taker, thinker, reflective, caring, principled, knowledgeable) of the IB learner profile.

## **Discussion**

### **The GMS and the Measurement of International Mindsets**

To further the development of the types of leadership attributes that are required to engage the multidimensional forces of globalization, it is essential to identify the resources, strategies and processes needed to ensure the development of international and global-mindedness. When considering the use of the GMS as one tool for identifying or measuring the dimensions of GM, an analysis of the findings for research question one related to the differences across the subscales of the GMS indicated that principals in international schools that offered IB PYP programs scored higher on the GMS for cultural pluralism and lower for the sub-scale of global centrism with no significant differences for the dimensions of efficacy, interconnectedness and responsibility. While the finding for global centrism was unexpected, given the requirement of IB schools to facilitate international-mindedness for all members of the school community, it may be

explained by the descriptive statistics, which indicated that 36 percent of survey participants reported their schools were located in IB North America which demonstrated lower mean scores than other region groups for this study. The implications of this finding for principals in national schools suggests that while attention should be paid to the development of all five dimensions of global-mindedness, special consideration should be given to the dimension of global centrism if schools are to ensure opportunities for teachers and students to develop the attitudes, values, and skills necessary to ensure a willingness to make judgments based on global, not ethnocentric standards. Given the current trend of global economic competition that seems to dominate conversations related to educational reform, the dimension of global centrism is essential to further the essential agendas of intercultural understanding and collaboration, especially when living in a globally interconnected world.

Further to this, implications of the findings for this study related to the use of the GMS in measuring the dimensions of global-mindedness also suggest that the five subscales (cultural pluralism, efficacy, global centrism, interconnectedness, responsibility) are relevant and related to each other. In addition, Hett's (1993) five dimensions fall together to form one construct, which serves to further confirm the validity and reliability of the GMS as one tool for identifying the development of global-mindedness. This suggests that the GMS may assist in identifying global-mindedness for current and prospective school leaders either as a tool for pre-service instruction, leader recruitment and selection, or as professional development or reflection component. This does not imply that the GMS be employed as test or assessment of global-mindedness,

but rather as one tool for identifying the development of the five dimensions of global-mindedness for reflection, or as a needs assessment in determining strategic or professional development objectives. The appropriate use of the GMS may allow school leaders to engage identifying the effects the needs or vision for school communities, not only school level policies or for matters related to strategic planning, but also to raise awareness and an understanding of the social, political and economic policies that affect educational agendas and reform.

Another use of the GMS may be employing the use of the five dimensions of global-mindedness to initiate the development of a comprehensive, conceptual framework of international or global-mindedness within and across national borders. For example, the International Baccalaureate (IB) espouses the development of the IB learner profile and requires the use of specific terms (balanced, communicator, inquirer, risk-taker, thinker, reflective, caring, principled open-minded, knowledgeable) that serve as the attributes of international-mindedness in action (Appendix A). While well intended, as noted by Haywood (2007) the use of culture-specific terms, a narrow interpretation of identified attributes and in some cases, the use of culturally inappropriate values have caused confusion and concern in some countries when developing internationally-minded perspectives. While the IB has occasionally acquiesced and allowed for vocabulary substitution of some of the IB learner profile attributes which serve as the foundation for the development of international-mindedness, perhaps a more effective solution would be to present dimensions or larger, overarching concepts of international-mindedness in lieu of specific terms and vocabulary. This strategy may allow for greater flexibility across



cultures related to language and local culture while also preserving the overarching themes and constructs of international or global-mindedness. Individuals or entities that are interested in developing international or global perspectives may also initiate this practice of employing or offering the dimensions of global-mindedness as a framework for understanding in lieu of assigning specific terms or attributes that could be considered as culturally biased or hegemonic in nature (Haywood, 2007).

### **The GMS and the IB Learner Profile**

While a limitation with respect to the ten IB learner profile questions (items 31-40) was acknowledged due to social desirability, to further support the use of the GMS as one measure of the development or existence of an international or global-mindset within the leadership of schools, findings from research question 4 reported significant results for how the GMS supports and expands the meanings of the IB learner profile. The dimensions of cultural pluralism and interconnectedness reported significant differences for nine of the 10 IB learner profile attributes (balanced, communicator, inquirer, risk-taker, thinker, caring, principled open-minded, knowledgeable) with the exception of reflective. Significant differences were also identified for nine learner profile attributes for global centrism (excluding open-mindedness) and responsibility (excluding risk-taker). Therefore, it can be inferred that similarities exist between the dimensions of global-mindedness and IB learner profile attributes, although the resulting power and generalizability was limited ( $n = 115$ ).

Although the findings indicated that the dimensions of cultural pluralism, global centrism, interconnectedness and responsibility were significantly related to nine of the

10 attributes of the IB learner profile, the dimension of efficacy only demonstrated significance for three attributes (open-minded, knowledgeable, communicator). The results of this finding indicate that efficacy is not as highly correlated to the attributes of the IB learner profile as the other four dimensions of global-mindedness. Although limitations related to power and effect size should be noted, it can be inferred that the subscales of the GMS are related to the IB learner profile attributes of international-mindedness and supports the development of common conceptual understandings or themes between IM and GM. In addition, the correlations between the GMS and the attributes of the learner profile suggest an expansion of the meanings and interpretations of international-mindedness that currently exist within the IB. For example, the dimension of efficacy underscores the importance of individual action and involvement in global issues. While the 'action' component is deemed as essential to the IB community of learners, the data for efficacy did not demonstrate a high number of correlations. This evidence supports the need for further investigation and development of the dimension of efficacy for IB schools to facilitate opportunities for active citizenship within local and global contexts.

An implication of these findings suggest that Hett's (1993) dimensions of global-mindedness support the meanings of the IB learner profile and may be used to expand the understandings of international-mindedness. This supposition is supported by Haywood (2007) who identifies international-mindedness as a multi-faceted entity that can be represented in a variety of practical forms, which must be identified and considered while helping students towards their own interpretations of international learning.

Although future construct validation studies of the GMS in international settings is required, school leaders may continue to support the use of IB learner profile attributes to facilitate the development of international-mindedness while also considering the five dimensions of GM to employ a process or profile –oriented approach as suggested by Haywood (2007) to develop a global perspective of education in school communities. The use of the GMS may also contribute to encourage a deeper thinking and understanding of the concept of international-mindedness. As this is the first published study employing the GMS in an international setting and also within the field of primary school leadership, as well as one which investigated relationships between global-mindedness and the IB learner profile, further research is recommended to validate the use of the GMS and Hett’s (1993) five dimensions to provide greater clarity, understanding and interaction across cultures and educational systems. Further study employing the GMS may assist in identifying essential components, strategies or frameworks that may be utilized to support the development of a global perspective for principals around the world. This research should allow for the inclusion of a cross-cultural perspective which includes all members of a school community (teachers, students, parents) to allow for a more comprehensive understanding of the dimensions of global-mindedness which mirrors the diversity in communities and perspectives that are a part of the global community.

### **Relationships Between Demographic Variables and the GMS**

The conceptualization of global-mindedness employed for this study is grounded in the theoretical framework of the need for the development of a critical, global

perspective of education that focuses on collaboration and social justice rather than the furthering of political agendas or global economic competition. For international school leaders, the development of a philosophical and pedagogical shift may require a review of current perspectives regarding international or global-mindedness and the acquisition of new leadership skills, and attributes. In order to facilitate an understanding and demonstration of the dimensions of cultural pluralism, efficacy, global centrism, responsibility and interconnectedness in the leadership of schools, it is important to identify the personal characteristics and experiences that influence the development of this multidimensional concept. The findings for this study identified significant relationships between seven of the fourteen demographic variables and the five subscales of global-mindedness for principals in schools authorized to offer the International Baccalaureate's Primary Years Programme. To further this discussion of how the GMS informs understandings of global-mindedness for international school principals, the findings for questions 2 and 3 of this study are presented by groupings of personal characteristics (gender, age, second language speaking ability, years of experience) and experiences abroad (length of time outside country of birth, number of countries visited).

### **Personal Characteristics**

**Gender.** Findings related to gender indicated that female principals presented higher sub-scores than their male counterparts for the dimension of efficacy. This significance for gender was also supported for efficacy, as well as global centrism through regression analysis. Kirkwood-Tucker et al.'s (2011) findings for undergraduate teacher candidates in Florida support the higher sub-scores for the dimension of efficacy

and note significance for interconnectedness. Since the IB espouses the explicit development of action and service throughout all areas of the school community, the finding related to higher sub-scores for efficacy is not surprising. While this supposition does not explain why gender was robust in many of the previous studies (Gillian, 1995; Hett, 1993; Kirkwood-Tucker, et al., 2011; Smith, 2008; Zhai & Scheer, 2004), it may account for the discrepancy in previous findings related to efficacy and interconnectedness.

From this finding related to females reporting higher scores on the GMS, (Gillian, 1995; Hett, 1993; Kirkwood-Tucker, et al., 2011; Smith, 2008; Zhai & Scheer, 2004), it can be inferred that females demonstrate greater understandings of the importance of individual action and involvement in national and international issues. Implications from this finding suggest that school leaders across genders and nationalities may further the development of global-mindedness by enhancing understandings of gender differences and feminist perspectives related to taking action and involvement in national and international issues (Collard & Reynolds, 2005). In doing so, school leaders may be able to promote understandings of the dimension of efficacy and the propensity to consider action within both a global context and local context. A further implication of the finding for gender differences is that school leaders and educational leadership faculty, consider the integration of gender and feminist perspectives throughout coursework and professional development activities (Blackmore, 1996; Grogan & Smith, 1998; Larson & Murtadha, 2002; Shakeshaft, 1989).

**Age and Years of Experience.** The data for this study reported significant relationships between the five dimensions of global-mindedness with older principals reporting higher for responsibility, while a regression analysis reported significance for the subscale of efficacy for principals in the highest age (60+ years) grouping. Kirkwood-Tucker et al. (2011) supported these findings with higher scores for interconnectedness reported for older students, with Gillian (1995) and Smith (2008) also identifying age as a predictor for the GMS. Other studies employing the GMS contradicted this finding with no significant relationships reported for age and the dimensions of global-mindedness (Duckworth et al., 2005; Hett, 1993; Zhai & Scheer, 2004).

While the results for the variable of age and the GMS are supported by some previous studies (Gillian, 1995; Smith, 2008; Kirkwood-Tucker, et al., 2011), the disparities among findings are further complicated by the rather large age disparity between the age groupings (32-60 or more years) for this study and those typically found for undergraduate students. Although the factor of age is not one that can be controlled, from the findings we can infer that there is something of value to learn across age groups, which may thereby support the implementation of cross-generational school leadership groups to enhance understandings of the dimensions of global-mindedness.

Similar to the findings for age, significance was reported between the number of years in education and the GMS with international school principals with more years of experience demonstrating higher levels of cultural pluralism, interconnectedness and responsibility. Of all the demographic variables, years in education may be the most

robust demographic variable. Although regression analysis did not report a significant relationship, the data trend related to older principals and those with more years of experience demonstrating higher levels of GM was again reported via the finding that principals with more years of experience with the IB reported higher mean scores for responsibility.

Through the findings from this study, it can be inferred, that the dimension of responsibility develops with a principal's age and number of years of experience. While principals are not able to control the variables of age and gender, the data indicated that there is still much to be learned from the perspective of gender differences and those with longer periods of personal experience in education and the IB. The larger question is, how can we harness and interact knowledge from gender, age and experiential perspectives to provide educational leaders with experiences to enhance global-mindedness? Are there cross-age, experiential, or gender perspective mentoring programs, or professional opportunities that can be developed to provide school leaders with the interactions and meaningful engagements provided by multiple perspectives and experiential levels?

**Second language speaking ability.** According to the data from this study, the ability to speak a second language has a positive impact across the dimensions of global-mindedness. International principals who speak a second language demonstrated higher levels of cultural pluralism and interconnectedness than those who do not speak a second language. This finding is supported by research, which indicates that second language acquisition may widen understandings of cultural practices and beliefs, thereby

supporting the development of cultural pluralism (Merryfield, Jarchow, & Pickert, 1997). Therefore, it may be inferred that the ability to speak more than one language is a significant characteristic, which positively impacts the development of the dimensions of global-mindedness.

While this study found evidence of the importance of speaking a second language for the development of the dimensions of GM, this does not infer that learning a language introduces you to another culture; rather it provides opportunities to communicate and think through another perspective. The very nature of language learning exposes the individual to different patterns of thinking, interacting and may provide changes in roles and relationships which may enhance an awareness and appreciation of other cultures (Fennes & Hapgood, 1997). Although we are not able to change characteristics such as age, gender, or language ability, the findings from this study support the need to learn from other individuals who have different life experiences and to better facilitate the development of the dimensions of global-mindedness.

While recognizing the limited power and effect size for the findings of this study, some implications related to second language ability include support for additional language acquisition initiatives or second language requirements for current and prospective school leaders to facilitate the development of cultural pluralism. In addition, educational leadership faculty and policy makers may consider the introduction of formal second language qualifications for prospective school leaders which includes coursework requiring study in another language.



## **Types of Experiences**

**Length of time abroad.** The data for this study reported that the amount of time a principal spent abroad or in other countries was related to higher sub-scores on the GMS. Specifically, significant relationships were identified for four of the five GMS sub-scales (global centrism, efficacy, interconnectedness, responsibility). Due to this finding, a discrepancy in the data related to experiences abroad was found between the variables lived outside country of birth and length of time outside country of birth. That is, where a person was at the time of this study was not significant, but how long a person had lived outside their country of birth was. Although Kehl (2005) and Kirkwood-Tucker et al. (2011) support this finding of the importance of longer periods abroad when developing the dimensions of global-mindedness, some contradictions do exist through previous research (Duckworth et al., 2005; Smith, 2008).

Since a longer time outside of a person's country of birth may allow for more opportunities to interact with people from other cultures, including time for a better understanding of the local language and other cultural contexts, additional support for this finding may exist. According to Douglas and Jones-Rikken (2001) as study abroad students move away from their comfort zones to explore new cultures and become involved in new relationships, they are more likely to enter situations involving people of different cultures in the future. The implications for this finding include extending or requiring semester long study abroad experiences or opportunities for longer time abroad related to exchanges for current or prospective school leaders. More and more school leaders take the opportunity to travel outside of their work location to visit schools,

especially in areas where schools have been shown to have higher international rankings. If length of time rather than travel to other countries is what is significant, then perhaps principals should also consider spending a longer time abroad by participating in travel aboard, study abroad or leadership exchanges.

Although length of time spent outside one's country of birth is often a matter of circumstance or choice, there is important knowledge to be gained regarding the importance of travel abroad in the development of global-mindedness. Therefore, future studies should solicit additional qualitative data that provides detailed, descriptive responses identifying the length and types of the types of cultural or personal experiences abroad (ex-patriate or local, cultural interactions) as well as the knowledge gained as compared to less extensive travel experiences or time spent abroad.

**Number of countries visited.** The variable of number of countries visited reported a significant relationship across the five dimensions of global-mindedness for international, primary school principals. In addition, those principals indicating 20 or more countries visited reported higher mean scores for the dimension of global centrism although a small effect size. For international educational organizations or entities such as the IB, this finding suggests the development of international education exchanges or professional development opportunities as a means of providing opportunities that facilitate the development of global-mindedness.

The findings of this study for types of experiences suggest that while travel itself is not significantly related to the development of the dimensions of global-mindedness, there is some evidence that the length and types of experiences incurred while traveling

outside of a local cultural context is related to higher sub-scores across the GMS.

Therefore, for the purposes of this study, travel may indicate the types of exposure and meaningful interactions with other cultures. This supposition is supported by Hofstede's (2001) findings that more time aboard provides opportunities for interaction and cross-cultural comparisons, which allow for collectivist, rather than individualist perspectives. This is also supported through the understandings that intercultural learning is long-term and does not happen by accident; it requires structure, planning, preparation and guiding (Fennes & Hapgood, 1997). In addition to this, evaluation or attention to difference to realize what is learned is necessary. This suggested approach is more likely to occur over time via thoughtful interaction rather than by chance encounters between people from different cultures, thereby supporting the finding for additional time and experience aboard.

While additional qualitative research is needed in this area to identify exposure to other cultures and types of interactions related to travel experiences, the implications for school leaders in national school settings suggest that longer and more frequent travel abroad experiences enhances sub-scores on the GMS (an indicator of global-mindedness) and that principals should participate in these types of experiences to enhance their own understandings of GM. If school leaders are expected to lead and develop the attributes necessary for a global perspective of education, they must seek out opportunities to enhance their understandings, orientations and interrelatedness of all peoples and nations. Although the researcher is not suggesting that only methods of longer or more frequent periods of international travel will suffice, findings from this study support the need for

meaningful travel experiences outside of the home country to ensure further development of the dimensions of global-mindedness. These experiences abroad, as well as other experiences involving cross-cultural exchanges within the local community, should serve to develop the dimensions of international mindedness for school leaders and other members of the educational community.

### **Understanding International School Leadership**

The findings related to personal characteristics and the dimensions of global-mindedness indicate that (gender, age, years of experience in education, years of experience with IB second language ability) and types of experiences (length of time outside country of birth, number of countries visited) have a positive relationship for the development of the dimensions of global-mindedness for international school principals. We may therefore infer from the findings that international school leaders have more opportunities (second language speaking, length of time outside country of birth, number of countries visited) to interact with and participate in cross-cultural comparisons or intercultural experiences, which allow for the development of collectivist perspectives as noted by Hofstede (2001). The three variables of second language speaking, length of time outside country of birth and number of countries visited, to some extent may be driven by a personal desire for new experiences or other choices that affect a change in location, circumstance, or offer new perspectives or understandings. As this research is grounded in the theory that it is indeed possible to teach for a global perspective (Hanvey, 1976, Hett, 1993), this research study emphasizes the importance of ensuring meaningful interactions across cultures to facilitate successful international school leadership in the

future. While school leaders are not able to control the variables of age and gender, they may certainly choose to actively participate in activities, both locally and abroad that serve to provide enhanced understandings and meaningful interactions with peoples of diverse cultures and backgrounds to further the development of a global perspective and mindset.

### **Study Limitations**

A primary limitation of this study is noted through the data collection method and use of a questionnaire, which has some limitations. For example, in some cultures the context in which a question is asked is as important as the content. There is also some sense that the Global-Mindedness Scale (GMS) appears to inspire some level of social desirability, especially during times of war or global conflict (Hett, 1993). In addition to this, questions 31-40, related to international-mindedness and the attributes of the IB Learner Profile also represent socially desirable responses.

It is also important to note that the GMS is primarily a psychosocial instrument that was not intended as a critical, political or educational scale of measurement. Study participants were asked to respond as individuals, not in their role as principals. In addition, the GMS does not directly measure leadership challenges, global complexities, political climates or the roles that schools or school leaders themselves play in globalization processes.

Findings and results of this study were dependent upon a variety of mitigating factors including the selection of international, primary school principals from schools authorized to offer the International Baccalaureate's (IB) Primary Years Programme from

July 1997 through July 2008 as a means of a purposeful sample. Other members of the school community were not invited to participate in this study nor were comparisons made with schools outside of an IB PYP context. In addition, given the mission and purpose of IB world schools to promote values such as international-mindedness, it would be expected that study participants demonstrate an understanding of the concepts of international-mindedness.

The researcher also notes a limitation for the participant sample as it relates to geographic location and generalizability. Although the world is divided into regional locations as designated by the IB, it is impossible to make any claims that the research results apply cross culturally. A further limitation of this study employing the GMS is related to the process of self-reporting by the participants, which are based on personal understandings and experiences and are difficult to discern during the data analysis process. For example, when respond to the question related to the demographic variable, country of birth, one survey participant contacted the researcher upon survey completion and commented:

I was born in the Netherlands, but my family migrated to Australia when I was 6 years old. As I am now in my late 50s, I really consider myself to be Australian so that's the way I answered most of the questions. However, I had difficulty with the "mother-tongue" question. I speak Dutch, but no fluently. So though I put Dutch as my mother tongue, I perhaps should have put English.

This statement illustrates a limitation also identified through previous studies employing the GMS and may be a result of the interaction between the quantitative nature of this study and the quality of participant experiences that are not documented or were not taken into consideration (Duckworth et al., 2005).

## **Recommendations**

### **Policy Recommendations**

1. Given the complexity and diversity of many local communities, establish effective policies related to outreach and the development of understandings and opportunities for meaningful interactions across cultures for members of the local community.
2. Initiate the development of educational leadership policy that requires more frequent cultural or travel experiences for school leaders and supports the implementation of extended travel abroad for school leaders.

### **Recommendations for University Practices**

1. Begin the implementation of semester long or extended, study abroad or cultural exchange programs for school leaders.
2. Further promote and support educational leadership faculty exchanges and require active collaboration across cultural contexts and geographic locations that focuses on the development of leadership and management across cultures.
3. Initiate second language speaking and writing course requirements for educational leadership students and consider second language requirements involving formal qualifications.
4. Initiate articulated collaboration between educational leadership faculty and language faculty members (second-language instruction) to develop bi-lingual

educational leadership courses to further facilitate second language acquisition and provide real-world opportunities to utilize additional languages.

### **Recommendations for Educational Leaders**

1. Explore opportunities for language acquisition to expand communication in other languages with a goal of adding to language acquisition experiences whenever possible.
2. Participate and actively explore opportunities for personal and professional travel experiences outside of local and home country cultural contexts.
3. Explore and participate in professional development opportunities or readings that expand knowledge related to gender perspectives and the development of global-mindedness.
4. Participate in cross-cultural opportunities with school leaders from around the world to provide more frequent and meaningful professional interactions related to educational leadership and management which, while not the only ideal, may be facilitated via technology, professional conferences or travel aboard experiences.
5. Promote and support the use of the IB learner profile attributes to facilitate the development of international-mindedness and global-mindedness in school communities.

### **Recommendations for Future Research**

#### **As it relates to this study.**

1. Develop future construct validation studies of the GMS for use in comparative, international school studies.



2. Employ a mixed-methods study of global-mindedness for educational leaders, teachers and students in non-IB or international school settings (public, state or government schools) located in various regions around the world as a means of a comparative study.

2. Develop a mixed-methods GM study for all members of the school community for IB schools (staff, students and parents) across all three IB programmes (considering articulated PK-12 patterns) as a means of a normative, comparative study.

3. Develop a mixed-methods study, which investigates the roles that schools, school leader, or international educational organizations play in the globalization process.

**As it relates to findings.**

1. Develop further study regarding the connections between second language speaking ability and the development of global-mindedness. Are there differences between languages? What are the variables or factors of second language acquisition and use that promote the development of global-mindedness?

2. Initiate studies involving brain research related to cognitive and social-emotional growth and development associated with second language acquisition investigating the relationships for the development of global-mindedness (Fennes & Hapgood, 1997).

3. Develop a mixed-methods, comparative study related to the length and types of travel experiences abroad to provide qualitative data related to types of experiences and the areas of personal impact related to these experiences abroad.

5. Due to the frequent connection of the use of the term global-mindedness with the hegemonic forces of globalization, develop research related to the understandings of terminology (world-mindedness, international-mindedness, global-mindedness, cross-cultural awareness) to better understand the relationships and dimensions of each (are they the same, different, where are the connections, where is the disconnect) and develop some agreement or continuity for school leaders related to the inherent conceptual understandings.

### **Summary**

The researcher intended for the findings from this study to be used to assist school leaders with the development of a more attainable global perspective, which also addresses issues of equity for educators and students around the world. The research indicates that a principal's beliefs and values are central to developing and supporting the vision and culture of a school community especially in relation to the moral imperatives of education (Begley, 2002; Stoll & Fink, 1996; Swaffield & MacBeath, 2009). Therefore, it is essential that current and prospective school leaders are provided with the educational tools and experiences that facilitate opportunities for self-awareness, reflection and the development of global-mindedness. In addition to supporting the use of Hett's (1993) Global Mindedness Scale (GMS) as a tool for understanding and identifying the development of the dimensions of GM, the findings from this study may be useful for assisting school leaders and educators at all levels in identifying and understanding the dimensions of global-mindedness as a first step in the journey towards

developing a global perspective of education to better address the challenges and complexities of life in the 21st century.

The findings from this study reported significant relationships for the personal characteristics of age, gender, years of experience, years with IB and second language speaking ability for international school principals. In addition to second language speaking ability, the experiential principal characteristics of length of time outside country of birth and number of countries visited emphasized the importance of participating in meaningful experiences across cultures. Despite these findings, some nations including the United States which pride themselves in the diversity of its peoples, do not seem to take advantage of opportunities to learn across cultural contexts either locally, or more importantly through the promotion of travel or study abroad experiences to enhance global understandings for school leaders. Are there ways to capitalize on cultural difference and learn from each other locally, while also recognizing research, which indicates that frequency and length of travel experiences outside of our home countries and the acquisition of additional languages all promote the development of global-mindedness in school leadership?

This study's findings also identified relationships between the dimensions of the GMS and the ten attributes of the IB learner profile (balanced, communicator, inquirer, risk-taker, thinker, reflective, caring, principled open-minded, knowledgeable) which suggested implications related to the development of practices that support the development of international and global-mindedness for school communities around the world. Further to this, those interested in developing internationally or globally-minded

educational practices may consider utilizing the dimensions or conceptual framework of global-mindedness in lieu of designating specific terms or attributes that could be considered to be culturally biased or hegemonic in nature. Given the discourse surrounding the definitions of international and global-mindedness, perhaps the employment of these practices, in addition to further empirical research, will allow for the development of educational frameworks that consider the multitude of perspectives that are generated through the collaboration between cultures rather than the myopic lenses of global, economic competition and political dominance.

A study conducted by the Asia Society and Goldman Sachs (Bell-Rose & Desai, 2005) suggests that knowledge about the rest of the world is no longer a luxury; it is a necessity. This is especially true of school leaders preparing for success and leadership in today's world and emphasizes the importance of developing a global-mindset to ensure the development of appropriate educational frameworks that balance the complex and contradictory forces of life in a globalized world. For leaders, educators, and policy makers at all levels, there is an urgent need to consider and implement international education policies, frameworks and practices that espouse a critical theory perspective and the development of global perspectives. In the world of the 21<sup>st</sup> century and beyond, we will leave all children behind if education is not organized with a global context in mind (Bell-Rose & Desai, 2005). Therefore, societies must ensure that current and prospective school leaders are provided with the opportunities, experiences and necessary support to develop, understand and embody a global-mindset. If we are able to incorporate perspectives which employ the dimensions of cultural pluralism, efficacy,

global centrism, interconnectedness, and responsibility, we will be well on the way to developing educational systems that begin to address the complex nature of living in an interconnected world with measures of fidelity, social justice and equity for all children.

## APPENDIX A. IB LEARNER PROFILE

The aim of all IB programmes is to develop internationally minded people who, recognize their common humanity and shared guardianship of the planet, help to create a better and more peaceful world. IB learners strive to be:

**Inquirers:** They develop their natural curiosity. They acquire the skills necessary to conduct inquiry and research and show independence in learning. They actively enjoy learning and this love of learning will be sustained throughout their lives.

**Knowledgeable:** They explore concepts, ideas and issues that have local and global significance. In so doing, they acquire in-depth knowledge and develop understanding across a broad and balanced range of disciplines.

**Thinkers:** They exercise initiative in applying thinking skills critically and creatively to recognize and approach complex problems, and make reasoned, ethical decisions.

**Communicators:** They understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication. They work effectively and willingly in collaboration with others.

**Principled:** They act with integrity and honesty, with a strong sense of fairness, justice and respect for the dignity of the individual, groups and communities. They take responsibility for their own actions and the consequences that accompany them.

**Open-minded:** They understand and appreciate their own cultures and personal histories, and are open to the perspectives, values and traditions of other individuals and communities. They are accustomed to seeking and evaluating a range of points of view, and are willing to grow from the experience.

**Caring:** They show empathy, compassion and respect towards the needs and feelings of others. They have a personal commitment to service, and act to make a positive difference to the lives of others and to the environment.

**Risk-takers:** They approach unfamiliar situations and uncertainty with courage and forethought, and have the independence of spirit to explore new roles, ideas and strategies. They are brave and articulate in defending their beliefs.

**Balanced:** They understand the importance of intellectual, physical and emotional balance to achieve personal well being for themselves and others.

**Reflective:** They give thoughtful consideration to their own learning and experience. They are able to assess and understand their strengths and limitations in order to support their learning and personal development.

IB Learner Profile Booklet (2007)

## APPENDIX B. IB PROGRAMME STANDARDS

### Section A: Philosophy

Standard A: The school's educational beliefs and values reflect IB philosophy.

### Section B: Organization

Standard B1: Leadership and structure

The school's leadership and administrative structures ensure the implementation of the IB programme (s).

Standard B2: Resources and support

The schools' resources and support structures ensure the implementation of the IB Programme (s).

### Section C: curriculum

Standard C1: Collaborative Planning Collaborative planning and reflection supports the implementation of IB programmes (s).

Standard C2: Written Curriculum

The school's written curriculum reflects IB philosophy

Standard C3: Teaching and learning

Teaching and learning reflects IB philosophy

Standard C4: Assessment

Assessment at the school reflects IB assessment philosophy.

IBO (2011a)

## APPENDIX C. CHARACTERISTICS OF GLOBAL-MINDEDNESS (Hett, 1993)

1. Possession of certain personal attributes: Tend to be inquisitive, flexible, tolerant of ambiguity, and open-minded; seeks opportunities for hearing the “other” and for learning about those different from themselves.
2. Belief in the unity of humanity: Have looked within and in that self-reflection, have found their own connection to the larger world community; are aware of the common thread that links them to other people everywhere; and feel a sense of global belonging.
3. Are cultural pluralists: Understand culture and how it influences worldview and behavior and, more than this find great pleasure in the diversity and challenge that cross-cultural experiences have brought into their lives.
4. Oppose prejudice: Reject all forms of prejudice, including ethnocentrism, chauvinism, and racial prejudice because they see beyond the superficialities of culture, color, religion, etc, to the essence of a shared human experience on earth.
5. Are activists: Live their vision by acting; have a sense of empowerment; believe in the importance of doing something; whether in one’s own community or on a global level; possess a sense that they can make a difference.
6. Exhibit environmental concern: Are concerned for the well being of the planet.
7. Understand the interconnectedness of the global community: Feel a sense of kinship and connectedness with the human family and see the benefits of this growing interconnection for their own culture of nation.
8. Have a sense of responsibility and care, are aware of their role within an extended community, feel a sense of responsibility towards the global community.
9. Possess additional language ability: believe that second language ability is important in order to be able to make switches internally to other frames of reference or worldviews.
10. Seek to learn: are active seekers of information about the global arena through reading, meeting people from other countries, and taking classes which have an international focus.
11. Possess a futurist perspective: have a long term perspective and try to be cognizant of the future.



APPENDIX D. COUNTRIES WITH PYP AUTHORIZED SCHOOLS (as of July 2008)

Country Name	Country Name	Country Name	Country Name
ANGOLA	GERMANY	PORTUGAL	TANZANIA
ARGENTINA	GHANA	QATAR	ZAMBIA
AUSTRALIA	HONG KONG	ROMANIA	ZIMBABWAE
AUSTRIA	INDIA	RUSSIAN FEDERATION	
AZERBAIJAN	INDONESIA	SERBIA	
BAHAMAS	ITALY	SINGAPORE	
BAHRAIN	JAPAN	SLOVENIA	
BANGLADESH	KAZAKHSTAN	SPAIN	
BARBADOS	KENYA	SRI LANKA	
BELGIUM	KOREA, REPUBLIC	SUDAN	
BOTSWANA	KUWAIT	SWEDEN	
BRAZIL	LATVIA	SWITZERLAND	
CAMBODIA	LEBANON	SYRIAN ARAB REPUBLIC	
CANADA	MALAYSIA	TANZANIA	
CHILE	MAURITIUS	THAILAND	
CHINA	MEXICO	TURKEY	
COLOMBIA	MONGOLIA	UGANDA	
DENMARK	NAMIBIA	UKRAINE	
ECUADOR	NETHERLANDS	UNITED ARAB EMIRATES	
EGYPT	NEW ZEALAND	UNITED KINGDOM	
ESTONIA	NIGERIA	UNITED STATES	
FIJI	NORWAY	URUGUAY	
FINLAND	OMAN	VENEZUELA	
FRANCE	PHILIPPINES	VIETNAM	

APPENDIX E. IB LETTER IN SUPPORT OF THE STUDY



April 27, 2010

To Whom It May Concern:

We are aware that Maria Hersey, IB Representative in Florida and doctoral candidate at Florida Atlantic University, is presently in the process of conducting research for her dissertation on the topic of international mindedness in the PYP and may be contacting IB PYP schools to solicit participation in her research study.

Maria is doing this research independent of the IB and IB schools will not be required to participate. However, the IB supports Maria's professional development through the acquisition of an education research degree and has no objection to her undertaking of this project. Furthermore, the IB will provide Maria with contact information for coordinators in order to facilitate her administration of the survey to IB PYP schools worldwide.

Sincerely,

Elizabeth Brock  
Head of Policy and Research  
International Baccalaureate

APPENDIX F. GMS: ORIGINAL VERSION (Hett, 1993)

On the following pages, you will find a series of statements. Please read each statement and decide whether or not you agree with it. Then circle the response that most accurately reflects your opinion. There are no “correct” answers.

Strongly agree	Disagree	Unsure	Agree	Strongly agree
1	3	3	4	5

1. I generally find it stimulating to spend an evening talking with people from another culture.
2. I feel an obligation to speak out when I see our government doing something I consider to be wrong.
3. The United States is enriched by the fact that it is comprised of many people from different cultures and countries.
4. Really, there is nothing I can do about the problems of the world.
5. The needs of the United States must continue to be the highest priority in negotiating with other countries.
6. I often think about the kind of world we are creating for future generations.
7. When I hear that thousands of people are starving in an African country, I feel very frustrated.
8. Americans can all learn something of value from all different cultures.
9. Generally, an individual’s actions are too small to have a significant effect on the ecosystem.
10. Americans should be permitted to pursue the standard of living they can afford if it only has a slight negative impact on the environment.
11. I think of myself, not only as a citizen of my country, but also as a citizen of the world.
12. When I see the conditions some people in the world live under, I feel a responsibility to do something about it.
13. I enjoy trying to understand people’s behavior in the context of their culture.
14. My opinions about national policies are based on how those policies might affect the rest of the world.
15. It is very important to me to choose a career in which I can have a positive effect on the quality of life for future generations.
16. American values are probably the best
17. In the long run, America will probably benefit from the fact that the world is becoming more interconnected.

18. The fact that a flood can kill 50,000 people in Bangladesh is very depressing to me.
19. It is important that colleges and universities provide programs designed to promote understanding among students of different ethnic and cultural backgrounds.
20. I think my behavior can impact people in other countries.
21. The present distribution of the world's wealth and resources should be maintained because it promotes survival of the fittest.
22. I feel a strong kinship with the worldwide human family.
23. I feel very concerned about the lives of people who live in politically repressive regimes.
24. It is important that we educate people to understand the impact that current policies might have on future generations.
25. This not really important to me to consider myself as a member of the global community.
26. I sometimes try to imagine how a person who is always hungry must feel.
27. I have very little in common with people in underdeveloped nations.
28. I am able to affect what happens on a global level by what I do in my own community.
29. I sometimes feel irritated with people from other countries because they don't understand how we do things (here).
30. Americans have a moral obligation to share their wealth with the less fortunate peoples of the world.

## APPENDIX G. CONTENT VALIDITY STUDY

### THE DEVELOPMENT OF GLOBAL-MINDEDNESS: INTERNATIONAL SCHOOL LEADERSHIP PERSPECTIVES

Thank you for consenting to serve as a content validity judge for the items below that have been developed to measure the relationships between the concepts of international and global-mindedness.

The purpose of these 10 questions is to explore the attitudes, beliefs and behaviors associated with international-mindedness as defined by the International Baccalaureate's (IB) Learner Profile. It is the intent of the researcher to employ this tool with 687 primary school principals located in schools currently authorized to offer the IB's Primary Years Programme in 84 countries around the world.

Global-mindedness is defined a worldview in which one sees oneself as connected to the world community and feels a sense of responsibility for its members and reflects this commitment through demonstrated attitudes, beliefs, and behaviors and presumes a perspective that acknowledges an issue in the context of the world as a whole (Hett, 1993).

International-mindedness presumes a perspective of acknowledging issues within the context of two or more states, nations, or countries and is defined as an openness to and curiosity about the world and people of other cultures, which serves to develop a profound level of understanding of the complexity and diversity of human interactions and is described through the attributes of the IB learner profile (Hill, 2007).

**DIRECTIONS:** Rate each item in terms of its validity as a measure of an element of the specified learner profile attribute. Reverse scored (RS) suggests the item should reflect the opposite of that attribute.

1. Select the indicator underneath each item, which you feel best, indicates the validity from a scale of 1-4.

1	2	3	4
(Not valid)	(Somewhat valid)	(Quite valid)	(Very valid)

2. Please remember to focus on whether or not the content of an item is appropriate to the particular attribute, NOT whether or not you agree or disagree with the item.

3. All comments are welcome. Any suggestions on how to improve the clarity or wording of a statement would be of great assistance. Please refer to the following statements as a guide when determining the validity of each item.

**Inquirers:** They develop their natural curiosity. They acquire the skills necessary to conduct inquiry and research and show independence in learning. They actively enjoy learning and this love of learning will be sustained throughout their lives.

**Knowledgeable:** They explore concepts, ideas and issues that have local and global significance. In so doing, they acquire in-depth knowledge and develop understanding across a broad and balanced range of disciplines.

**Thinkers:** They exercise initiative in applying thinking skills critically and creatively to recognize and approach complex problems, and make reasoned, ethical decisions.

**Communicators:** They understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication. They work effectively and willingly in collaboration.

**Principled:** They act with integrity and honesty, with a strong sense of fairness, justice and respect for the dignity of the individual, groups and communities. They take responsibility for their own actions and the consequences that accompany them.

**Open-minded:** They understand and appreciate their own cultures and personal histories, and are open to the perspectives, values and traditions of other individuals and communities. They are accustomed to seeking and evaluating a range of points of view, and are willing to grow from the experience.

**Caring:** They show empathy, compassion and respect towards the needs and feelings of others. They have a personal commitment to service, and act to make a positive difference to the lives of others and to the environment.

**Risk-takers:** They approach unfamiliar situations and uncertainty with courage and forethought, and have the independence of spirit to explore new roles, ideas and strategies. They are brave and articulate in defending their beliefs.

**Balanced:** They understand the importance of intellectual, physical and emotional balance to achieve personal well being for themselves and others.

**Reflective:** They give thoughtful consideration to their own learning and experience. They are able to assess and understand their strengths and limitations in order to support their learning and personal development.

1. When teaching a lesson, I think it is important for children to show independence in learning. (INQUIRER)

1	2	3	4
(Not valid)	(Somewhat valid)	(Quite valid)	(Very valid)
Comment/Suggestion:			

2. While it is important to be open to the perspectives of others, it is not practical. (OPEN-MINDED) RS

1	2	3	4
(Not valid)	(Somewhat valid)	(Quite valid)	(Very valid)

Comment/Suggestion:

3. In my everyday life, I demonstrate a personal commitment to service. (CARING)

1	2	3	4
(Not valid)	(Somewhat valid)	(Quite valid)	(Very valid)

Comment/Suggestion:

4. People should strive for emotional balance to achieve personal well-being. (BALANCED)

1	2	3	4
(Not valid)	(Somewhat valid)	(Quite valid)	(Very valid)

Comment/Suggestion:

5. In my life, I approach unfamiliar situations with courage. (RISK-TAKER)

1	2	3	4
(Not valid)	(Somewhat valid)	(Quite valid)	(Very valid)

Comment/Suggestion:

6. The ability to understand my limitations is an important part of personal development. (REFLECTIVE)

1	2	3	4
(Not valid)	(Somewhat valid)	(Quite valid)	(Very valid)

Comment/Suggestion:

7. By exploring concepts of global significance rather than only those concepts related to local or national ideals, people acquire in-depth knowledge. (KNOWLEDGABLE)

1	2	3	4
(Not valid)	(Somewhat valid)	(Quite valid)	(Very valid)

Comment/Suggestion:

8. I deliberately apply critical thinking skills when making ethical decisions. (THINKER)

1	2	3	4
(Not valid)	(Somewhat valid)	(Quite valid)	(Very valid)

Comment/Suggestion:

9. The most important ethical principle is to act with a strong sense of justice for the dignity of an individual. (PRINCIPLED)

1	2	3	4
(Not valid)	(Somewhat valid)	(Quite valid)	(Very valid)

Comment/Suggestion:

10. While it would be ideal, it is not necessary for people to be able to express ideas in more than one language. (COMMUNICATOR) RS

1	2	3	4
(Not valid)	(Somewhat valid)	(Quite valid)	(Very valid)

Comment/Suggestion:



## APPENDIX H. GMS: MODIFIED VERSION

### International Educational Leadership Perspectives

Maria S. Hersey and Dr. Ira Bogotch

**Copy of consent that will be displayed online noting that the participant chooses to participate by clicking the “agree” button:**

Thank you for your consent to participate in this study designed to explore the perspectives of school leaders in international primary schools. In the section below you will find a series of statements. Please read each statement and choose the number that best indicates your level of agreement or disagreement with that statement. The survey should take approximately ten minutes to complete. You have the option of completing this survey now or scrolling to the end of the survey and clicking the “Save” button to return to this survey at a later date. Please note that this link will expire on Friday, October 7, 2011.

Scale:

Strongly agree	Disagree	Agree	Strongly agree
1	3	3	4

1. I generally find it stimulating to spend an evening talking with people from another culture.
2. I feel an obligation to speak out when I see a government doing something I consider to be wrong.
3. The world is enriched by the fact that it is comprised of many people from different cultures and countries.
4. Really, there is nothing I can do about the problems of the world.
5. I feel needs of country of birth must continue to be the highest priority in negotiating with other countries.
6. I often think about the kind of world we are creating for future generations.
7. When I hear that thousands of people are starving in another country, I feel very frustrated.

8. We can all learn something of value from all different cultures.
9. Generally, an individual's actions are too small to have a significant effect on the ecosystem.
10. People should be permitted to pursue the standard of living they can afford if it only has a slight negative impact on the environment.
11. I think of myself, not only as a citizen of my country, but also as a citizen of the world.
12. When I see the conditions some people in the world live under, I feel a responsibility to do something about it.
13. I enjoy trying to understand people's behavior in the context of their culture.
14. My opinions about national policies are based on how those policies might affect the rest of the world.
15. It is very important to me to choose a career in which I can have a positive effect on the quality of life for future generations.
16. The values of my country of birth values are probably the best.
17. In the long run, my country of birth will probably benefit from the fact that the world is becoming more interconnected.
18. The fact that a flood can kill 50,000 people in another country is very depressing to me.
19. It is important that colleges and universities provide programs designed to promote understanding among students of different ethnic and cultural backgrounds.
20. I think my behavior can impact people in other countries.
21. The present distribution of the world's wealth and resources should be maintained because it promotes survival of the fittest.
22. I feel a strong kinship with the worldwide human family.
23. I feel very concerned about the lives of people who live in politically repressive regimes.
24. It is important that we educate people to understand the impact that current policies might have on future generations.

25. It is not really important to me to consider myself as a member of the global community.
26. I sometimes try to imagine how a person who is always hungry must feel.
27. I have very little in common with people in underdeveloped countries.
28. I am able to affect what happens on a global level by what I do in my own community.
29. I sometimes feel irritated with people from other countries because they don't understand how we do things in my country of birth.
30. People have a moral obligation to share their wealth with the less fortunate peoples of the world.
31. When teaching a lesson, I think it is important for children to show independence in learning.
32. While it is important to be open to the perspectives of others, it is not practical.
33. In my everyday life, I demonstrate a personal commitment to service.
34. People should strive for emotional balance to achieve personal well being.
35. In my life, I approach unfamiliar situations with courage.
36. The ability to understand my limitations is an important part of personal development.
37. By exploring concepts of global significance rather than only those concepts related to local or national ideals, people acquire in-depth knowledge.
38. I deliberately apply critical thinking skills when making ethical decisions.
39. One important ethical principle is to act with a strong sense of justice for the dignity of an individual.
40. While it would be ideal, it is not necessary for people to be able to speak a second language.

## Section 2: Background Information

Please provide the following information related to your personal and academic experience. All responses will be anonymous and confidential

41. What is your gender?     \_\_\_Male     \_\_\_Female
42. What is your age?  
   \_\_\_18-25 years old; \_\_\_26-31 years old; \_\_\_32-37 years old; \_\_\_38-41 years old;  
   \_\_\_42-47 years old; \_\_\_48-53 years old; \_\_\_54-59 years old; \_\_\_60-65 years old;  
   \_\_\_66+ years old
43. In what country were you born? (Please type name of country of birth): \_\_\_\_\_
44. Have you ever traveled outside of your country of birth? \_\_\_Yes \_\_\_No
45. If yes, how many countries have you visited? (Please indicate number of countries visited)  
   \_\_\_1-3 countries; \_\_\_4-6 countries; \_\_\_7-9 countries; \_\_\_10-12 countries;  
   \_\_\_12-15 countries; \_\_\_16-19 countries; \_\_\_20+ countries
46. Have you lived outside of your country of birth?     \_\_\_Yes     \_\_\_No
47. If yes, please indicate the length of time you have lived outside of your country of birth.  
   \_\_\_Less than 1 month; \_\_\_1-3 months; \_\_\_4-6 months; \_\_\_7-9 months;  
   \_\_\_10-12 months; \_\_\_2-3 years; \_\_\_4-6 years; \_\_\_7-10 years; \_\_\_10-12 years;  
   \_\_\_12-15 years; \_\_\_16-19 years; \_\_\_20+ years
48. What is your primary (mother-tongue) language? \_\_\_\_\_
49. Do you speak a second language fluently?     \_\_\_Yes     \_\_\_No
50. If yes, how many languages do you speak fluently?  
   \_\_\_2 languages; \_\_\_3 languages; \_\_\_4 languages; \_\_\_5 languages;  
   \_\_\_6 or more languages
51. Please indicate the number of years of experience in education:  
   \_\_\_Less than 1 year, \_\_\_1-3 years; \_\_\_4-6 years; \_\_\_7-9 years; \_\_\_10-12 years;  
   \_\_\_13-15 years; \_\_\_16-18 years; \_\_\_19-21 years; \_\_\_22+ years
52. Please indicate your years of experience with the International Baccalaureate (IB)  
   Less than 1 year, \_\_\_1-3 years; \_\_\_4-6 years; \_\_\_7-9 years; \_\_\_10-12 years;  
   \_\_\_13-15 years; \_\_\_16-18 years; \_\_\_19-21 years; \_\_\_22+ years

53. Please indicate the designated IB region, which your school is located in:  
\_\_IBAEM (IB Africa, Europe & Middle East); \_\_IBAP (IB Asia Pacific);  
\_\_IBLA (IB Latin America); \_\_IBNA (IB North America, Canada, Caribbean)

54. How many years has your school been authorized to offer the IB's Primary Years Programme?  
\_\_0-3 years; \_\_4-7 years; \_\_8-10 years; \_\_11-14 years; \_\_15 years or more

Thank you for participating in this survey. Your contributions to the field of international educational school leadership are greatly appreciated. Should you have any questions regarding this study, please contact Maria Hersey via email at [mhersey@fau.edu](mailto:mhersey@fau.edu) or Dr. Ira Bogotch at [ibogotch@fau.edu](mailto:ibogotch@fau.edu)

## REFERENCES

- Albrow, M. (1990). *Globalization, knowledge and society: Readings from International Sociology*. London, UK: Sage Publications.
- Appadurai, A. (1996). *Modernity at large: Cultural dimensions of globalization*. Minneapolis, MN: University of Minnesota Press.
- Appadurai, A. (Ed.). (2001). *Globalization*. Durham, NC: Duke University Press.
- Appiah, A. (2006). *Cosmopolitanism: Ethics in a world of strangers*. New York, NY: Norton & Company.
- Apple, M. (2004). *Ideology and curriculum*. New York, NY: Routledge-Falmer.
- Banks, J. A. (2004). Introduction: Democratic citizenship education in multicultural societies. In J. A. Banks (Ed.), *Diversity and citizenship education: Global perspectives* (pp. 3-15). San Francisco, CA: Jossey-Bass.
- Barrows, T. S., Bennett, M. F., Braun, H. I., Clark, J. L. D., Harris, L. G., & Klein, S. F. (1981). *College students' knowledge and beliefs: A survey of global understanding the final report of the Global Understanding Project*. New Rochelle, NY: Change Magazine Press.
- Bell-Rose, S., & Desai, V. (2005). *Educating leaders for a global society*. Retrieved from <http://www2.goldmansachs.com/citizenship/philanthropy/publications-andresources/index.html>
- Begley, P. (2002). Western-centric perspectives on values and leadership. In A. Walker & C. Dimmock (Eds.), *School leadership and administration: Adopting a cultural perspective* (pp. 45-59). New York, NY: Routledge Falmer.
- Blackmore, J. (1996). Breaking the silence: Feminist contributions to educational administration and policy. In K. Leithwood (Ed.), *International handbook of educational administration* (pp. 997-1042). Dordrecht, Netherlands: Kluwer Academic Publishers.
- Bloom, D. (2004). *Globalization and education: An economic perspective*. In M. Suarez-Orozco & D. Qin-Hilliard, D. (Eds.), *Globalization: Culture and education in the new millennium* (pp. 56-77). Los Angeles, CA: University of California Press.

- Bottery, M. (1999). Global forces, national mediations and the management of educational institutions. *Educational Management and Administration*, 27(3), 299-312.
- Burbules, N., & Torres, C (Eds.). (2000). *Globalization and education: Critical perspectives*. London, UK: Routledge.
- Cambridge, J., & Thompson, J. (2004). Internationalism and globalization as contexts for international education. *Compare*, 34(2), 161-175.
- Cameron, J. A., Alvarez, J. M., Ruble, D. N., & Fuligni, A. J. (2001). Children's lay theories about in-groups and out groups: Reconceptualizing research on prejudice. *Personality and Social Psychology Review*, 5, 118-128.
- Cause, L. (2009a, November). *Fostering inclusive and ethical intercultural relations: The International Baccalaureate, International Mindedness and the IB learner profile*. Paper presented at the International Conference on Migration, Citizenship and Intercultural Relations, Deakin University, Australia. Abstract retrieved from [www.deakin.edu.au/arts-ed/ccg/events/pdf/mpn%20008.pdf](http://www.deakin.edu.au/arts-ed/ccg/events/pdf/mpn%20008.pdf)
- Cause, L. (2009b). International mindedness and social control. *Asian Social Science*, 5(9), 32-46.
- Cohen, R., & Kennedy, P. (2000). *Global sociology*. New York, NY: New York University Press.
- Collard, J., & Reynolds, C. (2005). *Leadership, gender and culture in education: Male and female perspectives*. New York, NY: Open University Press.
- Coles, M., & Southworth, G. (2005). *Developing leadership: Creating the schools of tomorrow*. New York, NY: Open University Press.
- Crow, G. M., Hausman, C. S., & Scribner, J. P. (2002). Reshaping the Role of the School Principal. In J. Murphy (Ed.), *The educational leadership challenge: Redefining leadership for the 21st century* (pp. 189-210). Chicago, IL: The University of Chicago Press.
- Darling-Hammond, L. (2009). *The flat world and education: How America's commitment to equity will determine our future*. New York, NY: Teachers College Press.
- Deal, T., & Peterson, K. (1999). *Shaping school culture: The heart of leadership*. San Francisco, CA: Jossey-Bass.

- Daun, H. (Ed.) (2002). *Educational restructuring in the context of globalization and national policy*. New York, NY: Routledge Falmer.
- Dempster, N. (2009). What do we know about leadership? In J. MacBeath & N. Dempster (Eds.), *Connecting leadership and learning: Principles for practice* (20-32). London, UK: Routledge.
- Diaz, C. F., Massialas, B. G., & Xanthopoulos, J. A. (1999) *Global perspectives for educators*. Boston, MA: Allyn and Bacon.
- Dimmock, C. (2000). *Designing the learning-centered school: A cross-cultural perspective*. London, UK: Falmer Press.
- Dimmock, C., & Walker, A. (1998a). Comparative educational administration: Developing a cross-cultural conceptual framework. *Educational Administration Quarterly*, 34, 558-595. doi:10.1177/0013161X98034004006
- Dimmock, C., & Walker, A. (1998b). Towards comparative education: The case for cross cultural, school-based approach. *Journal of Educational Administration*, 36(4), 379-401.
- Dimmock, C., & Walker, A. (Eds.). (2000a). *Future school administration: Western and Asian perspectives*. Hong Kong: Chinese University Press.
- Dimmock, C., & Walker, A. (2000b). Globalisation and societal culture: Redefining schooling and school leadership in the twenty-first century. *Journal of Comparative Education*, 30(3), 303-312.
- Dimmock, C., & Walker, A. (2005). *Educational Leadership: Culture and Diversity*. Thousand Oaks, CA: SAGE Publications, Inc.
- Douglas, C., & Jones-Rikken, G. C. (2001). Study abroad programs and the American student world-mindedness: An empirical analysis. *Journal of International Business*, 13(1), 55–66.
- Duckworth, R., Walker-Levy, L., & Levy, J. (2005). Present and future teachers of the world's children: How internationally minded are they? *Journal of Research in International Education*, 4(3) 279-311. doi:10.1177/1475240905057808
- Ellis, A. (2004). *Exemplars of curriculum theory*. Larchmont, NY: Eye on Education.
- Farahmandpur, R. (2009). A critical pedagogy of hope in times of despair. In S. Macrine (Ed.), *Critical pedagogy in uncertain times: Hope and possibilities* (pp. 97-115). New York, NY: Palgrave Press.



- Fennes, H., & Hapgood, K. (1997). *Intercultural learning in the classroom: Crossing borders*. London, UK: Cassell.
- Fisch, K. (2009, April 28). *Shift happens* [video file]. Retrieved from <http://www.youtube.com/watch?v=I4FJMJtt8dk>
- Freire, P. (1970). *Pedagogy of the oppressed*. New York, NY: Continuum International Publishing Group.
- Friedman, T. (2005). *The world is flat: A brief history of the twenty-first century*. New York, NY: Farrar, Straus and Giroux.
- Fullan, M. (1993). *Change forces: Probing the depths of educational reform*. London, UK: Falmer Press.
- Gardner, H. (2004). *How education changes: Considerations of history*. In M. Suarez-Orozco & D. Qin-Hilliard (Eds.), *Globalization: Culture and education in the new millennium* (pp. 235-258). Los Angeles, CA: University of California Press.
- Gardner, H. (2006). *Five minds for the future*. Boston, MA, Harvard University Press.
- Gellar, C. (2002). International education: A commitment to universal values. In M. Hayden & J. Thompson (Eds.), *International education in practice* (pp. 30-39). London, UK: Kogan Page Limited.
- Gillian, K. J. (1995). A measure of global-mindedness at the University of Northern Colorado: An assessment of students, faculty and administrators. *Dissertation Abstracts International*, 56(08), 3016.
- Giroux, H. (2003). McLaren, P. (2003). Critical theory and educational practice. In A. Darder, M. Baltodano, & R. Torres (Eds.), *The critical pedagogy reader* (pp. 27-55). New York, NY: Routledge Falmer.
- Grant, A. (2006). *The development of global awareness in elementary students through participation in an online cross-cultural project*. (Doctoral dissertation, Louisiana State University and Agricultural Mechanical College). Retrieved from [etd.lsu.edu/docs/available/etd-10252006-134555/.../Grant\\_dis.pdf](http://etd.lsu.edu/docs/available/etd-10252006-134555/.../Grant_dis.pdf)
- Grogan, M., & Smith, F. (1998). A feminist perspective of women superintendents' approaches to moral dilemma. *Just and Caring Education*, 4(2), 176-192.
- Gunesch, K. (2004). Education for cosmopolitanism? Cosmopolitanism as a personal cultural identity model for and within international education. *Journal of Research in International Education*, 3(3), 252-275.

- Guttek, G. (1993). *American education in a global society*. Prospect Heights, IL: Waveland Press.
- Guthrie, J. W., & Sanders, T. (2001, January 7). Who will lead the public schools? *The New York Times, Education Supplement*, p. 46.
- Hallinger, P (2005). Foreword. In C. Dimmock and A. Walker (Eds.), *Educational leadership: Culture and Diversity* (pp. vii-xii). London: Sage.
- Hallinger, P., & Kantamara, P. (2000). Leading at the confluence of tradition and globalization: The challenge of change in Thai schools. *Asia Pacific Journal of Education*, 20(2), 46-57.
- Hallinger, P., & Leithwood, K. (1996). Culture and educational administration: An introduction. *Journal of Educational Administration*, 34(5), 4-11.
- Hanvey, R. G. (1976). *An attainable global perspective*. New York, NY: Global Perspectives in Education.
- Hargreaves, A. (2003). *Teaching in the knowledge society: Education in the age of insecurity*. New York, NY: Teachers College.
- Hargreaves, A., & Fink, D. (2006). *Sustainable leadership*. San Francisco, CA: Jossey-Bass.
- Hayden, M. C., Rancic, B., & Thompson, J. J. (2000). Being international: Student and teacher perception from international schools. *Oxford Review of Education*, 26(1), 107-123.
- Haywood, T. (2002). An international dimension to management and leadership skills for international education. In M. Hayden, J. Thompson, & G. Walker, G. (Eds.). *International education in practice: Dimensions for national and international school* (pp-171-184). Sterling, VA: Stylus Publishing.
- Haywood, T. (2007). A simple typology of international-mindedness and its implications for education. In M. Hayden, J. Levy, & J. Thompson (Eds.), *The SAGE handbook of research in international education* (pp. 79-89). London: Sage Publications.
- Heck, R. (2002). Issues in the investigation of school leadership. In A. Walker & C. Dimmock (Eds.), *School leadership and administration: Adopting a cultural perspective* (pp. 77-100). New York, NY: Routledge Farmer.

- Held, D. (1995). *Democracy and the global order: From modern state to cosmopolitan governance*. Stanford, CA: Stanford University Press.
- Held, D., & McGrew, A. (Eds.). (2000). *The global transformations reader: An introduction to the globalization debate*. Malden, MA: Polity Press.
- Hill, I. (2000). Trends in education: Internationally minded schools. *International Schools Journal*, 20(1), 24-37.
- Hill, I. (2007). International education as developed by the International Baccalaureate Organization. In M. Hayden, J. Levy, & J. Thompson (Eds.), *The SAGE handbook of research in international education* (pp. 25-37). London, UK: SAGE Publications.
- Hofstede, G. (1994). *Cultures and organizations: Intercultural cooperation and its importance for survival*. London, UK: Harper Collins Business.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations* (2nd ed.) Thousand Oaks, CA: Sage.
- Hodgkinson, C. (1991). *Educational leadership: The moral art*. Albany, NY: SUNY.
- International Baccalaureate Organization (IBO). (2007a). *The learner profile booklet*. United Kingdom: Anthony Rowe.
- International Baccalaureate Organization (IBO). (2007b). *Towards a continuum of international education*. United Kingdom: Anthony Rowe.
- International Baccalaureate Organization (IBO). (2011a). *IB standards & practices*. United Kingdom: Anthony Rowe.
- International Baccalaureate Organization (IBO). (2011b) *IB world school statistics* (Data File) Retrieved from <http://www.ibo.org/facts/schoolstats/>
- Jameson, F. (1998). Preface. In J. Jameson & M. Miyoshi (Eds.), *The cultures of globalization* (pp. xi-vii). Durham, NC: Duke University Press.
- Kehl, K., & Morris, J. (2005). Differences in global-mindedness between short-term and semester-long study abroad participants at selected private universities. *Interdisciplinary Journal of Study Abroad*, 15, 67-79.

- Kirkwood-Tucker, T., Morris, J., Lieberman, N. (2011). What kind of teachers will teach our children? The world-mindedness of undergraduate elementary and secondary social studies teacher candidates at five Florida public universities. *International Journal of Development Education and Global Learning*, 3(3), 5-28.
- Knight, J. (1997). Internationalization of higher education: A conceptual framework. In J. Knight & H. De Wit (Eds.), *Internationalization of higher education in Asia Pacific countries* (pp. 5-20). Amsterdam, Holland: European Association for International Education (EAIE).
- Knight, J. (2004). Internationalization remodeled: Definition, approaches and rationales. *Journal of Studies in International Education*, 8(5), 5-31. doi:10.1177/1028315303260832
- Larson, C., & Murtadha, K. (2002). In *The educational leadership challenge: Redefining leadership for the 21st century*. Chicago, IL: University of Chicago Press.
- Leithwood, K., Harris, A., & Hopkins, D. (2008). Seven strong claims about successful school leadership. *School Leadership and Management*, 28(1), 27-42.
- MacBeath, J. E. C., & Dempster, N. (2009). *Connecting leadership and learning: Principles for practice*. London, UK: Routledge Falmer.
- Matthews, J., & Sidhu, R. (2005). Desperately seeking the global subject: International education, citizenship and cosmopolitanism. *Globalization, Societies and Education*, 3(1), 49-66.
- Martin, C. L., Wood, C. H., & Little, J. K. (1990). The development of gender stereotype components. *Child Development*, 61, 891-1904.
- Marshall, H. (2007). The global education terminology debate: Exploring some of the issues In M. Hayden, J. Levy, & J. Thompson (Eds.), *The SAGE Handbook of Research in International Education* (pp. 390-403). London, UK: SAGE Publications.
- McLaren, P. (2003). Critical pedagogy: A look at the major concepts. In A. Darder, M. Baltodano, & R. Torres (Eds.). In *The critical pedagogy reader* (pp. 69-96). New York, NY: Routledge Falmer.
- Mead, G. H. (1929). National-mindedness and international-mindedness. *International Journal of Ethics*, 39, 385-407.

- Merryfield, M. M., Jarchow, E., & Pickert, S. (Eds.). (1997). *Preparing teachers to teach global perspectives: A handbook for teacher educators*. Thousand Oaks, CA: Corwin Press.
- Mittleman, J. (2002). Making globalization work for the haves and have-nots. *International Journal on World Peace, 19*(2), 3-12.
- Morris, M.L., & Lo, P. (2000). Shaping the curriculum: Contexts and cultures. *School Leadership & Management, 20*(2), 175-188.
- Munck, R. (2005). *Globalization and social exclusion: A transformationalist perspective*. Bloomfield, CT: Kimarian Press.
- Murphy, E. (2000). Questions for the new millennium. *International Schools Journal, 19*(2), 5-10.
- Noddings, N. (Ed). (2005). *Educating citizens for global awareness*. New York, NY: Teachers College Press.
- Nordgren, R. D. (2002). Globalization and education: What students will need to know and be able to do in the global village? *Phi Delta Kappan, 84*(4), 318-321.
- Northouse, P. (1997) *Leadership: Theory and practice*. Thousand Oaks, CA: Sage.
- Organization for Economic Co-operation and Development (OECD). (2008). *Trends shaping education 2008*, OECD Publishing. doi:10.1787/9789264046627-en
- Pink, D. (2005). *A whole new mind: Moving from the information age to the conceptual age*. New York, NY: Penguin.
- Quist, I. (2006). *Embedding international-mindedness within a monocultural environment: The challenge for international practice*. Retrieved from [www.ccsenet.org/journal/index.php/ass/article/download/.../3295](http://www.ccsenet.org/journal/index.php/ass/article/download/.../3295)
- Robinson, V., Lloyd, C., & Rowe, K. (2008). The impact of leadership on student outcomes: An analysis of the differential effects of leadership types. *Education Administration Quarterly, 44*(5), 635-674.
- Sampson, D., & Smith, H. C. (1957). A scale to measure world-minded attitudes. *Journal of Social Psychology, 45*, 99-106.
- Schoorman, D. (1999). The pedagogical implications of diverse conceptualizations of internationalization: A U.S. based case study. *Journal of Studies in International Education, 3*(19), 19-46. doi:10.1177/102831539900300203

- Schoorman, D. (2002). What do we really mean by “internationalization”? *Contemporary Education*, 71(4), 5-10.
- Sergiovanni, T. (2001). *The principalship: A reflective practice perspective*. Boston, MA: Allyn & Bacon.
- Shakeshaft, C. (1989). *Women in educational administration*. Newbury Park, CA: Sage.
- Smith, D. (2008). *The impact of international experience on the global mindedness of extension agents employed by the North Carolina Cooperative Extension Service*. Raleigh, NC: North Carolina State University.
- Spring, J. (2008). Research on globalization and education. *Review of Educational Research*, 78(2), 330-363 doi:10.3102/0034654308317846
- Stewart, V. (2005). A world transformed: How other countries are preparing students for the interconnected world of the 21st century. *Phi Delta Kappan*, 87(3), 229-232.
- Stewart, V., & Kagan, S. (2005). A new worldview: Education in a global era. *Phi Delta Kappan*, 87(3), 241-245.
- Stoll, L., & Fink, D. (1996). *Changing our schools*. Buckinghamshire, UK. Open University Press.
- Stromquist, N. P. (2002). *Education in a globalized world: The connectivity of economic power, technology and knowledge*. New York, NY: Rowman & Littlefield Publishers.
- Suarez-Orozco, M., & Qin-Hilliard, D. (Eds.) (2004). *Globalization: Culture and education in the new millennium*. Los Angeles, CA: University of California Press.
- Suarez-Orozco, M., & Sattin, C. (2007a). Learning in the Global Era. In M. Suarez-Orozco (Ed.), *Learning in the global era: International perspectives on globalization and education* (pp. 1-43). Berkley, CA: University of California Press.
- Suarez-Orozco, M., & Sattin, C. (2007b). Wanted: Global citizens. *Educational Leadership*, 64(7), 58-62.
- Swaffield, S., & MacBeath, J. (2009). Leadership for Learning. In J. MacBeath & N. Dempster (Eds.), *Connecting leadership and learning: Principles for Practice* (pp. 32-52). New York, NY: Routledge.

- Tarc, P. (2009). *Global dreams, enduring tensions: International Baccalaureate in a changing world*. New York, NY: Peter Lang Publishing.
- Thompson, J. J. (1998). Towards a model for international education. In M. C. Hayden and J. J. Thompson (Eds.), *International education, principles and practice* (pp. 276-290). London, UK: Kogan Page.
- Torres, C. (1998). *Education, democracy and multiculturalism: Dilemmas of citizenship in a multicultural society*. Ladham, MD: Rowman and Littlefield.
- Townsend, T. (Ed.). (2007). *The international handbook of school effectiveness and school improvement*. New York, NY: Springer.
- Townsend, T., & Otero, G. (1999). *The global classroom*. Australia: Hawker Brownlow Education.
- Tye, B., & Tye, K. (1992). *Global education: A study of school change*. Albany, NY: State University of New York Press.
- Van Hook, C. W. (2000). *Preparing teachers for the diverse classroom: A developmental model of intercultural sensitivity*. Retrieved from <http://ceep.crc.uiuc.edu/pubs/katzsym/vanhook.html>.
- Villa, R., & Thousand, J. (Eds.). (2005). *Creating an inclusive school*. Alexandria, VA: Association for Supervision and Curriculum Development. Retrieved from <http://www.ibo.org/facts/schoolstats/progsbycountry.cfm>
- Wagner, T. (2008). *The global achievement gap*. New York, NY: Basic Books.
- Wallis, C., & Steptoe, S. (2006, December) How to bring our schools out of the 20th Century. *Time*, 168(25), 50-56.
- Walker, G. (2004). *Trends in international education and the IBO of the future. To Educate the Nations 2: Reflections on an international education*. Freat Glemham, Suffolk: Peridot Press.
- Walker, G. (2008). IB and the wider world. *IB World Magazine*, 52, 12-13.
- Wink, J. (1997). *Critical pedagogy: Notes from the real world*. White Plains, NY: Longman Publishers.

- Yachimowicz, D.J. (1988). *The effects of study abroad during college on international understanding and attitudes towards the homeland and other cultures* (Doctoral dissertation, University of California, Riverside, 1987). *Dissertation Abstracts International*, 48, 2561A.
- Yergin, D. (2002). Globalization: The inside story of our new interconnected world. *Social Education*, 66(2), 111-116.
- Zhai, L., & Scheer, S. (2004). Global perspectives and attitudes toward cultural diversity among summer agriculture students at the Ohio State University. *Journal of Agricultural Education*. 45(2), 39-51.
- Zhao, Y. (2009). *Catching Up or leading the way: American education in the age of globalization*. Alexandria, VA: ASCD.