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Establishing a Baseline Measurement of Intercultural Competence of Ukrainian Faculty: Setting the Stage for Domestic and Global Intercultural Understanding

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FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

ESTABLISHING A BASELINE OF PSYCHOMETRIC ESTIMATES OF
MEASUREMENT OF INTERCULTURAL COMPETENCE OF UKRAINIAN
FACULTY: SETTING THE STAGE FOR DOMESTIC AND GLOBAL
INTERCULTURAL UNDERSTANDING

A dissertation submitted in partial fulfillment of the
requirements for the degree of

DOCTOR OF PHILOSOPHY

in

CURRICULUM AND INSTRUCTION

by

Iryna Dzhuryak

2014

To: Dean Delia C. Garcia
College of Education

This dissertation, written by Iryna Dzhuryak, and entitled Establishing a Baseline Measurement of Intercultural Competence of Ukrainian Faculty: Setting the Stage for Domestic and Global Intercultural Understanding, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

Linda Spears-Bunton

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Date of Defense: June 12, 2014

The dissertation of Iryna Dzhuryak is approved.

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Florida International University, 2014

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DEDICATION

To my parents, Nelya Ivanivna Dzhuryak and Taras Heorhiovych Dzhuryak, for their
love and support, despite the long distance keeping us apart.

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This dissertation became possible due to help of many individuals. First, I would like to express a deep gratitude to my dissertation committee members, Drs. Hilary Landorf, Isadore Newman, Linda Spears-Bunton, and Guillermo Grenier, who wisely guided me through the writing process from the brainstorming stage to the final manuscript of this study. This dissertation would not have been possible without the cooperation of the faculty members of the anonymous Ukrainian University who promptly provided their survey responses. I greatly appreciate the support of the administrators of this University who kindly allowed the data collection in their institution and extended their help with survey facilitation. I am thankful to all the anonymous raters who selflessly dedicated their time and efforts to participate in the pilot studies. I am also thankful to Drs. Darla Deardorff and Larry Braskamp for their comments and advice on the use of the Global Perspective Inventory as a research instrument for the purpose of this study. I wish to express my gratitude to my uncle Ostap Havrysh and his daughter and my cousin Marianna Havrysh for a valuable logistical support in data collection.

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ABSTRACT OF THE DISSERTATION

ESTABLISHING A BASELINE OF PSYCHOMETRIC ESTIMATES OF
MEASUREMENT OF INTERCULTURAL COMPETENCE OF UKRAINIAN
FACULTY: SETTING THE STAGE FOR DOMESTIC AND GLOBAL
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by

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Florida International University, 2014

Miami, Florida

Professor Hilary Landorf, Major Professor

Post-Soviet Ukraine is in a time of upheaval and transition. Internal relations between pro-Western and pro-Russian supporters have deteriorated in the light of recent political events of Euro Revolution, Russia's occupation of the Crimean peninsula, and the militant confrontations in the southeastern regions of the country. In the light of these developments, intercultural competence is greatly needed to alleviate domestic tensions and enable effective intercultural communication with the representatives of different cultures within the country and beyond its borders.

This study established a baseline of psychometric estimates of intercultural competence of Ukrainian higher education faculty. A sample of 276 professors of different academic majors from one university in Western Ukraine participated in the research. The Global Perspective Inventory (GPI; Merrill, Braskamp, & Braskamp, 2012) was chosen as a research instrument to measure intercultural competence of the faculty members. The GPI takes into account cognitive, intrapersonal, and interpersonal

domains, each of which contains two scales reflective of theories of cultural development and intercultural communication – Cognitive-Knowing, Cognitive-Knowledge, Intrapersonal-Identity, Intrapersonal-Affect, Interpersonal-Social Responsibility, and Interpersonal-Social Interaction. Because the research instrument has neither been previously used as a measure of intercultural competence, nor administered in Ukraine, it was cross-validated using a Table of Specification (Newman, Lim, & Pineda, 2013) and two sets of factor analyses. As a result, a modified version of the GPI was created for use in Ukraine.

Multiple linear regression analyses were used to test relationships between the participants' GPI scores on intercultural competence, and several independent variables that consisted of academic discipline, intercultural experience, and how long the participants taught at the university. The analyses determined a positive relationship between the scores on three out of six scales of the original version and two out of five scales of the modified version of the GPI and all the independent variables simultaneously. The relationship between the faculty responses on the six scales of both GPI versions and the independent variables controlling for each other produced mixed results. A unique role of intercultural professional development in predicting intercultural competence was discussed.

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CHAPTER I

INTRODUCTION

This study developed a quantitative baseline measurement of intercultural competence of Ukrainian faculty members and provided evidence on the relationships between a construct of intercultural competence of the faculty and their academic discipline, length of tenure, and intercultural experience. Chapter 1 presents the background of the study, followed by the study's problem, purpose, research questions, theoretical framework, and definitions of terms. The statement of significance of the study and its delimitations conclude the chapter.

Background of the Study

The dissolution of the Soviet Union and establishment of an independent Ukraine in 1991 created a new political and social climate that came with a need and opportunities for increased intercultural experiences and intercultural communication with the rest of the world. This new democratic regime accelerated the process of internationalization of higher education institutions so as to make them compatible with the education systems of other European countries by joining the Bologna process and entering the European Higher Education Area (EHEA) and the European Research Area (ERA). Given that the formerly closed society had provided very limited exposure to the experience of working with representatives of other countries, this opening of possibilities for intercultural communication created a need for an active development of intercultural competence for current and future professionals.

Intercultural competence is defined as the “ability to communicate effectively and appropriately in intercultural situations based on one’s intercultural knowledge, skills, and

attitudes” (Deardorff, 2006, p. 249). Local and international cultural immersion leading to intercultural competence can be achieved by means of intercultural education (e.g., Alred, 2003; Guilherme, Glaser, & Garcia, 2009). The aim of intercultural education is “to achieve a developing and sustainable way of living together in multicultural societies through the creation of understanding of, respect for and dialogue between the different cultural groups” (UNESCO, 2006, p. 18). In addition, the goals of intercultural education overlap with some of the best practices for our global era, particularly the development of cultural sensibilities, intercultural and interpersonal skills, and the ability to work with people of different backgrounds (Süssmuth, 2007).

After Ukraine gained its independence and declared its democratic political course, the differences between the two major ethnic groups—the Ukrainian-speaking Ukrainians, on the one hand, and Russian-speaking Ukrainians and ethnic Russians, on the other hand—became acute; and the country became a “divided titular nation” (Nikolayenko, 2011, p. 7) along cultural, political, and social lines into the pro-European west and the pro-Russian east. The historic tensions between these groups have greatly exacerbated in the light of the recent pro-European protest movement that started in the Maidan, Kyiv’s central square, and was opposed by pro-Russian demonstrators who demanded closer ties with neighboring Russia. The confrontations between pro-Ukrainian/ pro-European and pro-Russian supporters peaked and escalated to an international level when Russia occupied the Crimean peninsula, the most southern territory of Ukraine, and backed up militant groups who took a partial control of two eastern oblasts of the country. It remains to be seen whether Russia will continue its military aggression on the territory of Ukraine

or withdraw its support of militia and return its troops from the Ukraine-Russia border back to their bases.

Further development of sound intercultural education policies and practices that embrace the country's diversity could contribute to the alleviation of these intercultural conflicts. Effective intercultural education policies and curricula that foster intercultural competence are greatly needed to both address the internal issues of Ukrainian diversity and promote the integration of the country into the diverse European society. In the current conflictual political situation in Ukraine, the task of the implementation of intercultural education has become more difficult and at the same time, more important and urgent.

The role of higher education institutions and their faculty as promoters of intercultural understanding and dialogue cannot be overestimated. The Council of Europe in its White Paper on intercultural dialogue (2008) pointed that universities have the potential to foster interculturally competent professionals and actively engage them in public life, promote scholarly research on intercultural issues, and implement appropriate intercultural practices in all aspects of teaching. Accordingly, curricula needs to include methods and strategies that can prepare students "to manage the new situations arising from diversity, discrimination, racism, xenophobia, sexism and marginalization and to resolve conflicts peacefully, as well as to foster a global approach to institutional life on the basis of democracy and human rights and create a community of students, taking account of individual unspoken assumptions, school atmosphere and informal aspects of education" (Council of Europe, 2008, p. 32). Logically, if intercultural education is to be infused in Ukrainian higher education curricula, then it is equally important that higher

education faculty members are interculturally competent and able to implement intercultural education effectively in the classrooms.

In the post-communist, Ukrainian education system intercultural education in primary, secondary, and higher education curricula is currently at the developing stage. In order to fully function, intercultural education needs to be further supported and developed both theoretically and practically. Monocultural and authoritarian education practices inherited from the Soviet times are still largely prevalent in the Ukrainian education. For example, in a qualitative study of teacher educators in one Ukrainian higher education institution, Koshmanova and Ravchyna (2008) found that teacher educators hold “stereotypes of authoritarian education... at the level of philosophy, theoretical assumptions, teaching methods and strategies”, are resilient to education reforms, and use monocultural methods of instruction (p. 154). It should be noted that the Soviet authorities fostered monoculturalism in terms of homogenization of the countries previously known as Soviet republics along cultural, linguistic, ideological, and political views promoting the Soviet socialist ideology and the superiority of the Russian language as a language of international communication (e.g., Haarman & Holman, 1997; Marty & Appleby, 1997).

Problem

In a modern interconnected multicultural society, intercultural competence enables effective and appropriate communication across different cultures. In conditions of “globalization and interdependence, any person’s life is directly or indirectly influenced by contemporaneous events in the rest of the world” (Portera, 2011, p. 12). Accelerating globalization creates a demand for an interculturally competent workforce (Krajewski, 2011). Due to the overarching processes of globalization and increased intercultural

interaction in all occupations, intercultural education is needed to promote effective intercultural communication and understanding between the representatives of different cultures. Consequently, effective implementation of intercultural education in all academic disciplines of Ukrainian higher education institutions is important to promote intercultural competence of students, the future professionals.

In the light of current events in Ukrainian society, intercultural competence is greatly needed to contribute to the alleviation of domestic conflicts between pro-Ukrainian/ pro-European and pro-Russian supporters deeply rooted in socio-historic and political tensions. The pro-European Union political course taken by the country leaders will create more intercultural interactions for Ukrainians and add to the necessity of development of intercultural skills. Intercultural competence is also important for effective and appropriate personal and professional intercultural communication with representatives of different world cultures created by accelerating globalization processes.

To keep abreast of drastic societal changes as a consequence of globalization, curricula and teaching methods need to be revised (Portera, 2011). The task of implementing intercultural education requires faculty of higher education institutions to have an adequate level of intercultural competence, be knowledgeable of the theory and methods of intercultural education, and infuse intercultural education in curricula. Thus far, the researcher has not found any studies concerned with the measurement of intercultural competence of Ukrainian faculty. The proposed study is the first to establish a baseline of psychometric estimates of measurement of intercultural competence of faculty members in a selected Ukrainian higher education institution.

Purpose

The goal of this study was to establish baseline psychometric estimates of intercultural competence of Ukrainian higher education faculty. The Global Perspective Inventory (GPI; Braskamp, Braskamp, Merrill, & Engberg, 2012) was identified as the research instrument of choice for this study in part due to its interculturally oriented content and in part due to the lack of empirical literature on the use of quantitative instruments measuring intercultural competence of Ukrainian faculty. The GPI has not been previously used to measure the concept of intercultural competence; however, the instrument was created using intercultural theories. The study sought to demonstrate the relationship between the predictor variable of intercultural competence consisting of the six scales of the GPI —Cognitive-Knowing, Cognitive-Knowledge, Intrapersonal - Identity, Intrapersonal-Affect, Interpersonal-Social Responsibility, and Interpersonal-Social Interaction—and criterion variables of academic discipline, intercultural experience, and the length of tenure, measured by the number of years the participants taught in a higher education institution, for the selected population of Ukrainian faculty.

Research Questions

The research questions of this study are based on an overarching question: What are the psychometric estimates of the Global Perspective Inventory as a measure of intercultural competence of Ukrainian faculty members?

1. Is there a relationship between the Ukrainian faculty responses on the six scales of GPI and the following independent variables simultaneously: (a) four groupings of academic discipline, (b) intercultural experience and (c) the length of tenure?

2. Is there a relationship between the faculty responses on the six scales of GPI and their
(a) four groupings of academic discipline, (b) intercultural experience, and (c) length
of tenure, independent of each other?
- 2a. Is there a relationship between the faculty responses on the six scales of GPI and their
academic discipline, controlling for the length of tenure and intercultural experience?
- 2b. Is there a relationship between the faculty responses on the six scales of GPI and their
length of tenure, controlling for academic discipline and intercultural experience?
- 2c. Is there a relationship between the faculty responses on the six scales of GPI and their
intercultural experience, controlling for the length of tenure and academic discipline?

Theoretical Framework

According to Deardorff (2006, 2011), intercultural competence is a complex developmental process that individuals should critically reflect on and assess over time. In addition, faculty members need to internalize intercultural competence so as to be able to teach it effectively to students (Deardorff, 2011). This rationale informed the major purpose of this study—to establish the baseline of measurement of intercultural competence of Ukrainian faculty. Deardorff's (2006) Process Model of Intercultural Competence (PMIC; Figure 1) indicated that intercultural competence is developmental and moves from an individual to interpersonal level. It starts with certain individual attitudes - respect and openness toward other cultures, curiosity and discovery -- and moves towards interactive internal and external outcomes by means of the attainment of certain knowledge, comprehension, and skills. The internal outcome of the PMIC presupposes an informed frame of reference shift towards adaptability, flexibility, ethnorelative view and empathy. Deardorff (2006) pointed to the possibility of moving

directly from the necessary knowledge, comprehension, and skills to the external outcomes of intercultural competence that include effective and appropriate communication and behavior in an intercultural situation. However, the author argued that the process would be more effective and appropriate if both the internal outcomes and the external outcomes were achieved and translated into the necessary changes in attitudes. In this way, the model reflects the continuity of the process of intercultural competence development.

Figure 1: Process Model of Intercultural Competence

Note. Begin with attitudes; move from individual level (attitudes) to interaction level (outcomes) Degree of intercultural competence depends on acquired degree of attitudes, knowledge/comprehension, and skills. Cited in "Identification and assessment of intercultural competence as a student outcome of internationalization," by D.K. Deardorff, 2006, *Journal of Studies in International Education*, 10(3), p. 256. Copyright 2006 by D.K. Deardorff.

With this framework in mind, Deardorff (2011) argued that intercultural competence can be infused in curricula along with global educational topics in a number

of ways “to bring in diverse perspectives on issues, helping students begin to see from multiple perspectives, using students’ diverse backgrounds within a course, and requiring students to have either a local cultural immersion or an education abroad experience” (p. 69). Intercultural competence of students can be achieved by means of intercultural-focused curricula, intercultural experiences, and intercultural learning in the form of service learning, education abroad, and/or on-campus intercultural activities that stem from internationalization of higher education institutions. The development of intercultural competence is one of the most important outcomes of internationalization of higher education institutions (Deardorff, 2006; Krajewski, 2011). Due to the developmental nature of intercultural competence, it can be improved over time if students are given appropriate intercultural experiences in addition to appropriate curricula (Deardorff, 2011). In this study, intercultural experience was used as one of the independent variables and operationally defined by time spent in study abroad, travel abroad and intercultural professional development.

The definition of intercultural competence used for the purposes of this study is one of the seven definitions that received the highest percentage of expert agreement in a Delphi study (80-100 %; Deardorff, 2006). The components of intercultural competence identified in Deardorff (2006; Figure 2) were used as variables to validate the use of GPI as appropriate to measure intercultural competence. More details on these are available in *Definitions and Operational Definitions* and *Method* sections.

ACC	REJ	M	SD	Item
20	0	3.4	0.7	Understanding others' worldviews
19	1	3.8	0.6	Cultural self-awareness and capacity for self-assessment
19	1	3.7	0.6	Adaptability and adjustment to new cultural environment
19	1	3.5	0.6	Skills to listen and observe
19	1	3.4	0.8	General openness toward intercultural learning and to people from other cultures
19	1	3.4	0.8	Ability to adapt to varying intercultural communication and learning styles
18	2	3.8	0.4	Flexibility
18	2	3.8	0.4	Skills to analyze, interpret, and relate
18	2	3.7	0.6	Tolerating and engaging ambiguity
18	2	3.6	0.6	Deep knowledge and understanding of culture (one's own and others')
18	2	3.5	0.8	Respect for other cultures
17	3	3.5	0.9	Cross-cultural empathy
17	3	3.4	1.0	Understanding the value of cultural diversity
17	3	3.3	0.9	Understanding of role and impact of culture and the impact of situational, social, and historical contexts involved
17	3	3.2	1.0	Cognitive flexibility—ability to switch frames from etic to emic and back again
17	2	3.0	0.8	Sociolinguistic competence (awareness of relation between language and meaning in societal context)
17	3	3.0	1.1	Mindfulness
16	4	3.6	0.8	Withholding judgment
16	4	3.4	0.8	Curiosity and discovery
16	4	3.2	0.9	Learning through interaction
16	4	3.1	1.2	Ethnorelative view
16	4	2.9	0.9	Culture-specific knowledge and understanding host culture's traditions

Figure 2. Components of Intercultural Competence

Note. ACC = accept, REJ = reject. Cited in in "Identification and assessment of intercultural competence as a student outcome of internationalization," by D.K. Deardorff, 2006, *Journal of Studies in International Education*, 10(3), p. 249. Copyright 2006 by D.K. Deardorff.

Definitions and Operational Definitions of Terms

Academic discipline was operationally defined by four groupings of variables –

Pure Hard Sciences (PHS), Applied Hard Sciences (AHS), Pure Soft Sciences (PSS), and

Applied Soft Sciences (ASS). The groupings are based on Biglan's (1973) classification of

academic disciplines in higher education institutions. Accordingly, Pure Hard Sciences included physics, chemistry, mathematics, medicine, and biology; Applied Hard Sciences - engineering, agronomy, and computer science; Pure Soft Sciences - history, philosophy, foreign languages, communications, anthropology, political science, psychology, and sociology; and Applied Soft Sciences included business and education.

Intercultural competence is an ability to communicate effectively and appropriately in intercultural situations based on one's intercultural knowledge, skills, and attitudes (Deardorff, 2006). In this study, six scale scores on the Global Perspective Inventory represented intercultural competence scores.

Intercultural education is a type of education that goes beyond passive coexistence between different cultural groups and aims to achieve a developing and sustainable way of living together in multicultural societies through the creation of understanding of, respect for and dialogue between the different cultural groups (UNESCO, 2006).

Intercultural experience (IE) was operationally defined by the following variables: Travel Abroad (TA), Study Abroad (SA), and Intercultural Professional Development (IPD).

Intercultural professional development (IPD) was represented by the total length of time dedicated to intercultural-focused professional development activities, such as seminars/ workshops/ presentations/ lectures attended or conducted, measured in time increments.

Interculturalism or *interculturality* is the existence and equitable interaction of diverse cultures and the possibility of generating shared cultural expressions through dialogue and mutual respect (UNESCO, 2006).

Length of tenure was operationally defined as the total number of academic years the participant taught in a higher education institution.

Multicultural education is a type of education that uses learning about other cultures in order to produce acceptance, or at least tolerance, of these cultures.

Multiculturalism is a philosophical position and movement that assumes that the gender, ethnic, racial, and cultural diversity of a pluralistic society should be reflected in all of its institutionalized structures but especially in educational institutions, including the staff, norms and values, curriculum, and student body (Banks & Banks, 1993).

Study Abroad (SA) was operationally defined as a total amount of time the participant studied in an education institution outside of Ukraine, measured in time increments: none, 1-6 months; 7-12 months; 1-3 years; and more than 4 years.

Travel Abroad (TA) was operationally defined as a total amount of time the participant spent outside of Ukraine, measured in time increments: none, 1-6 months; 7-12 months; 1-3 years; and more than 4 years.

Significance of the Study

Faculty, education administration, policy makers, researchers, and other professionals may use the research findings for the purposes of intercultural education planning, professional development of faculty, and development of intercultural education policies. The data on the validation of GPI as the instrument for measurement of intercultural competence can inform future research studies looking to measure this construct. The relationships between intercultural competence as measured by the GPI scales and the specific demographic characteristics of the Ukrainian faculty will broaden

the limited insight in the existing literature on the nature of intercultural competence for the researched population.

Delimitations

This study was delimited to the faculty members of one Ukrainian higher education institution; thus, the results may not be representative of all Ukrainian higher education faculty members. The data are available only for those faculty members who volunteered to participate in the study. The degree of intercultural competence was delimited to the scale scores on the Global Perspective Inventory.

Summary

The chapter demonstrated the need and importance of implementation of intercultural education in Ukrainian higher education institutions to help alleviate domestic intercultural tensions as well as prepare interculturally competent graduates ready for international and intercultural cooperation. Intercultural competence of faculty is presented as an important link to help reach these goals. This study established a baseline psychometric measurement of intercultural competence of faculty.

CHAPTER II

LITERATURE REVIEW

This section deconstructed the evolution of meaning and use of concepts of *multiculturalism* and *interculturality* in Ukraine from the Soviet times until present, revealed how these concepts were operationalized in the Soviet and modern higher education in Ukraine, and reflected how the Soviet and modern Ukrainian understanding of these concepts was applied on the international and domestic education agenda. This section also reviewed theoretical and empirical studies exploring the relationship between intercultural competence of educators and students and their selected demographic characteristics.

Concepts of Interculturality, National Interculturality, Multiculturalism and Multinational State

The theoretical development of *intercultural education* started in the 1970s in Western countries after international organizations, especially the United Nations, pointed to the need of education as a means of peaceful remediation of conflicts, international understanding and cooperation (Portera, 2011). *Multicultural education* is an ideology that developed from the civil rights movement in the late 1960s – early 70s in the United States and spread gradually to other Western countries in the 1970s such as Canada and Australia (Portera, 2011). The goal of multicultural education is to provide equal education opportunities for students of all cultural backgrounds (Banks, 2009). From the modern Western perspective, multiculturalism is “a philosophical position and movement that assumes that the gender, ethnic, racial, and cultural diversity of a pluralistic society should be reflected in all of its institutionalized structures but especially in educational

institutions, including the staff, norms and values, curriculum, and student body” (Banks & Banks, 1993, in Grant & Ladson-Billings, 1997, p. 182).

Various definitions of intercultural education and multicultural education overlap and/ or are considered to be a constituent part of each other. For example, Davidman and Davidman (2001) defined multicultural education as “a multifaceted, organizational, change-oriented strategy” pursuing the following goals: “(1) educational equity; (2) empowerment of students, parent, and teachers; (3) the development of a society that values cultural pluralism; (4) intercultural/ interethnic/ intergroup understanding and harmony in the classroom, school, and community; (5) maintenance and expansion of freedom and democracy in a just pluralistic society; (6) an expanded knowledge of multicultural education, as well as various cultural and ethnic groups; and (7) the development of students, parents, and practitioners ... whose thoughts and actions are guided by an informed and inquisitive multicultural perspective” (p. 13).

In contrast, UNESCO (2006) in Guidelines on Intercultural Education indicated that “[i]nterculturality presupposes multiculturalism and results from ‘intercultural’ exchange and dialogue on the local, regional, national or international level” (p. 17). In the document it was stated that multicultural education “uses learning about other cultures in order to produce acceptance, or at least tolerance, of these cultures” (p.18); whereas intercultural education “aims to go beyond passive coexistence, to achieve a developing and sustainable way of living together in multicultural societies through the creation of understanding of, respect for and dialogue between the different cultural groups” (p. 18). Similarly, Banks (2011) indicated that intercultural education is “a term used to recognize the desirability for people from different cultures to interact in dynamic and complex

ways” (p. 14) though he limited the use of the term to Western Europe only. Allemann-Ghionda (2011) pointed to a semantic difference between the definitions: “In multicultural education, the prefix *multi* describes the multiplicity of different cultures which live on the same territory and/ or are taught in the same institution... In intercultural education the prefix *inter* underlines the interactive aspect” (p. 135).

The concept of *interculturalism* or *interculturality* is applied to evolving relations between cultural groups. In UNESCO’s (2005) definition, it is “the existence and equitable interaction of diverse cultures and the possibility of generating shared cultural expressions through dialogue and mutual respect.” UNESCO (2006) stated that interculturality is based on multiculturalism and includes intercultural communication on the local, regional, national, and international level. Following Gundara (2010), the researcher used the term *multicultural* as a descriptive term that “indicates elements of diversities in schools and communities” (p. 299) due to the current racialized usage of the term to describe new immigrant populations as being visibly different from dominant White populations. The term *intercultural* was used to address “broader taxonomic features of difference and diversity... through intercultural policies and practices” (Gundara, 2010, p. 299). For the purpose of the research, the researcher used the term *intercultural* to address education policies and practices.

The Ukrainian scholar Sliushchynskyi (2007) took the understanding of interculturalism further by elaborating on the notion of *intercultural communication on the national level*. The prerequisites for national intercultural communication are national unity and a common national culture. Sliushchynskyi (2007) understood a common national culture to be a set of traditions, norms, values, behaviors, and standards common

for all cultural groups of a given nation, and national unity is a result of an economic and political unity that may be achieved in either monoethnic or multiethnic societies.

Consequently, national intercultural communication uses common socio-linguistic codes to enable communication between representatives of different cultural groups within a nation. To avoid confusion, it should be noted that for the term *nation* Sliushchynskyi (2007) referred to the *state*.

From the sociological perspective, the concepts of *nation*, *people*, and *culture* are used to define each other (Kymlicka, 1995). Multiculturalism, if applied to the state or nation level, is a product of the national and ethnic differences both between members who represent different nations native to the state as well as members of immigrant populations on the one hand, and the degree of importance of these differences, both at an individual level and in the political life of the state on the other hand (Kymlicka, 1995). Therefore, modern Ukraine is a multicultural state because it is inhabited by more than 130 ethnic groups and nationalities, both native and immigrant. According to the latest 2001 census (State Statistics Committee of Ukraine, 2001), the population of the country consists of the following ethnic and national groups: Ukrainians (77.8%), Russians (17.3%), Belarusians (0.6%), Moldovans (0.5%), Crimean Tatars (0.5%), Bulgarians (0.4%), Hungarians (0.3%), Romanians (0.3%), Poles (0.3%), Jews (0.2%), and other groups (1.8%). However, the full diversity of the country is not reflected in the census because it does not distinguish between ethnic subgroups of native Ukrainians who have their own distinctive culture, dialects and specific geographic locations within the country. They include Hutsuls, Boikians, Lemkians, Slobozhany, Poltavtsi, and many others.

In applying the above-mentioned Kymlicka's (1995) definition of state multiculturalism, the Soviet Union used to be a multicultural state that recognized the political importance of national and ethnic groups: "In order to secure the cooperation of ethnic minorities, obviate traditional conflicts, and contribute to the cultural advance of the population, regions containing distinct ethnic groups are organized as 'autonomous' republics or districts, with special prerogatives, including representation in the All-Union Soviet of Nationalities, and special administrative responsibilities, particularly with respect to cultural affairs" (Lorimer, 1946, p. 54). However, the identification and codification of numerous ethnic groups was done by including some politicized ethnic identities that had organized themselves into national republics (e. g., Ukraine) after the Bolshevik Revolution of 1917 (Akturk, 2007). Consequently, many ethnic groups in the Soviet Union were ascribed an ethnic identity despite their different self-identification. These ethnic and quasi-ethnic groups were called *narodnosti* (peoples) (Akturk, 2007).

It should be noted that Soviet policy makers and scholars coined their own ethno-national terminology that reflected the contribution of socialism and their leading nationalism theory of Marxism-Leninism to juxtapose or replace Western terminology (Wolczuk & Yemelianova, 2008). Therefore, many Western terms, such as *multiculturalism* or *intercultural education* were not a part of the Soviet vocabulary. Instead, other terms pertaining to ethno-cultural and education aspects were used. The Soviet understanding of *nation* was determined by Stalin's theory of nation, which defined a *nation* being people who shared common territory, language, ethnicity, and mentality and had more than 100,000 population (Wolczuk & Yemelianova, 2008). Other central Soviet terms and concepts used were "*natsional'nost* (nationality), *ethnos* (a wider ethnic

community), *ethnographic group*, *narod* (people), [and] *narodnost*' (numerically small people)" (Wolczuk & Yemelianova, 2008, p. 181).

Although seen as a multicultural state in Western terms, the Soviet Union identified itself in its own terms as *multinational*, according to Lenin's theory of the national question. This theory envisaged the USSR as a multinational socialist state in which "the peoples oppressed by tsarism be given the rights of self-determination...; abolition of all discrimination, or, on the contrary, of all privileges based on national or religious grounds; guarantee of full equality of all nations and all languages, which would eliminate any infringement upon the rights of the national minorities; absence of a compulsory state languages and guarantee that the schools teach in the local languages...; a democratic republican structure for the state, broad areal autonomy on a national (ethnic) basis, and democratic local self-government" (Muradov, 1974, p. 292). The Soviet self-identification as a *multinational state* is in agreement with Kymlicka (1995) who explained that a country can become "a multination state" when it consists of different nations that either entered the state involuntarily (were invaded or conquered) or voluntarily form a federation. In order for a multination state to survive, all the constituent nations need to have a common political allegiance and see themselves not individualistically but as a single people (Kymlicka, 1995). In the USSR, this monocultural approach was implemented by promoting common principles of socialism based on equality and creating the unity of nations (Muradov, 1974).

Intercultural Issues in Education and Policy-Making in the Soviet Union

Sovietization and Russification processes in the USSR

The political course of the USSR in terms of the national question was controversial as was its leading theory of Marxism-Leninism that combined the Marxist view of the total dissolution of national boundaries with the Lenin's politics of cultural pluralism (Haarman & Holman, 1997). Contrary to the proclaimed equality of all the languages, cultures, and ethnicities as well as the nations' right to self-determination, the Soviet policies fostered authoritarian monoculturalism in the form of *Sovietization*, *Russification*, and *internationalization* of the country.

Russification is "the psychological transference of persons from a non-Russian to Russian identity" (Silver, 1974, p. 46). It was implemented by propagating the superiority of the Russian language and its necessity for upward social mobility, with the expectation that this would reduce both the exposure to traditional local ties and hostile feelings towards Russians (Silver, 1974). Anderson and Silver (1990) traced the results of Russification by comparing the censuses data of 1970, 1979, and 1989. They found that the adoption of Russian as a native language for non-Russian nationalities increased slightly (from 10.8 percent to 14.6 percent of the population) between 1959 and 1989, while an adoption of Russian as a second language increased more significantly from 37.1 percent to 48.1 percent in the non-Russian population. Anderson and Silver (1990) noted that those ethnicities that intermingled with Russian speakers and converted to Russian Orthodox religion became more Russified. This finding is in agreement with Kuzio (2005) who argued that Soviet politicians promoted in-country migration of ethnic Russians and

Russophones to different parts of the country to maintain Russian control over the republics.

Instead of multiculturalism, the Soviet policy elite promoted *Sovietization*: Soviet acculturation of ethnic groups based on the ideology of homogenization of society along socialist ideas (Haarman & Holman, 1997) and the creation of a shared identity of the so-called “Soviet man.” Such Soviet identity was nonethnic, although the politicians promoted many ethnic Soviet heroes (Marty & Appleby, 1997). Instead of incorporating holidays of different republics in the state calendar, Soviet authorities created their own, nonethnic uniform Soviet holidays that became widely celebrated across the country (Marty & Appleby, 1997). Many members of the Soviet non-Russian elite benefited from the status of shared Soviet identity by giving up their native language and ethnic identity (Marty & Appleby, 1997). Reflecting on the issues of recognition of Ukrainian history during the Soviet times, Kysla (2009) pointed that Soviet politicians prescribed books and television shows that portrayed Ukrainian history as a part of all-Soviet and Russian history, describing Ukraine as “a younger brother of Russia” (which is chronologically incorrect), and ignoring Ukrainian national historic authenticity.

The term *internationalization* (*internatsionalizatsiya*) as applied to the Soviet Union is not the same as its common Western connotation. In fact, it carries a contrary meaning. The Soviet *internationalization* intertwines *Sovietization* and *Russification* practices, with an aim of “spreading Soviet social patterns and ideas among the non-Russian population of the Soviet Union through the intermediary of Russian” (Haarman & Holman, 1997, p. 121). Some of the examples of the policy of internationalization were the introduction of unified Cyrillic alphabet for all the republics and the promotion of the

Russian language as the language of international communication and higher education (Wolczuk & Yemelianova, 2008).

Sovietization and Russification were introduced by Soviet authorities in “positive” terms, such as the rapprochement of the people, friendship of the people, and internationalization. This proletarian unity was supposed to promote cooperation between the dominant and oppressed groups to solve “all of the remnants of national inequality, class oppression, feudal and usurious debt-bondage, and political lawlessness” (Muradov, 1974, p. 304) in a democratic way. The rapprochement and friendship ideas, however, did not translate into the open cooperation with the world outside of the Soviet Union. Instead, Soviet nationality policy promoted the Russian language as a door to the Soviet and world culture (Bilinsky, 1981). As Marty & Appleby (1997) stated, “USSR was primarily a closed world in which most people never encountered citizens of another state, citizenship was a given scarcely worth of notice, while nationality was the quality that defined people’s lives” (p. 74). A good example of the Soviet assimilationist processes was mentioned in Bilinsky (1981) who quoted a speech by Rashidov, the Candidate Member of Politburo of the CC of the CPSU, First Secretary of the CC of the CP of Uzbekistan in 1979:

Under the conditions of mature Socialism there takes place an unheard of flourishing and rapprochement of national cultures, an all-around development of a *single* Soviet Socialist culture, which represents a higher stage of the contemporary cultural progress of mankind. Through the Russian language the representatives of all Union Republics, Autonomous Provinces and Autonomous Districts have

[acquired] the possibility of mastering all the achievements of Soviet and world culture. (p. 318)

Behind the propaganda of national equality, the Soviet authorities brutally violated the principles of multiculturalism and interculturality, and all human rights by conducting cultural genocide in the republics. The Communist party leaders used culture as a tool to legitimize totalitarian practices, spread propaganda, and permeate rearing and education with Soviet ideology (Karjaharm, 2006). For example, Karjaharm (2006) asserted that the Soviet authorities were destroying Estonian culture: “During the whole Soviet period (1940-1991), the death toll from war and repressions among the Estonian citizens reached to about 90,000 while an equal number of people were forced into permanent exile” (p. 142). In 1944 alone, “approximately 70,000-80,000 Estonians (about 10% of the total population), including around one fourth of the Estonian intelligentsia, fled to the West to escape the new Soviet occupation. Some 30-50% of the professional writers, artists, musicians, architects, clergymen and representatives of the medical profession emigrated, mostly to Germany and Sweden” (Karjaharm, 2006, p. 142).

As described by Popovych (2008), the genocide in 1932-1933 against Ukrainians by means of an artificially created famine —*Holodomor*—had even worse consequences. The famine not only took the lives of millions of Ukrainians (between 3.5 and 10 million according to different sources) but destroyed the Ukrainian rural class that supported the Ukrainian national culture, traditions, language, and Christian morals. Another consequence of Holodomor was ethnocide – Ukrainians had to register as Russians and give up their ethnic identity in order to survive. And finally, in 1932 Ukrainians were subjected to linguicide when Stalin banned the Ukrainian language from education,

administration, and the media. In addition, Ukrainian orthography and scientific and technical terminology were altered or replaced to resemble Russian or international terminology (Popovych, 2008).

Multicultural and Intercultural Aspects of Soviet Education

In stark contrast to this oppression of ethnic groups, Onushkin (1969) argued that Soviet higher education is based on democratic principles, such as the equal right to education for all Soviet citizens “regardless of property, social status, nationality, sex, religion, or political convictions” (p.1) and the availability of instruction in the native languages of students. Indeed, these and other democratic ideas on education were reflected in Article 121 of the 1936 Soviet Constitution:

Citizens of the U.S.S.R. have the right to education. This right is ensured by universal, compulsory elementary education; by education, including higher education, being free of charge; by the system of state stipends for the overwhelming majority of students in the universities and colleges; by instruction in schools being conducted in the native language (USSR Const., 1936).

The development of education was encouraged by the Soviet government and reflected in the 1977 Constitution Article 22: “A programme is being consistently implemented in the USSR to... extend the network of educational, cultural, and medical institutions” and Article 25:

In the USSR there is a uniform system of public education, which is being constantly improved, that provides general education and vocational training for citizens, serves the communist education and intellectual and physical

development of the youth, and trains them for work and social activity (USSR Const., 1977).

Some of the principles of the Soviet education were similar to the principles of Western multicultural and intercultural education. According to Articles 27, 36, 45, and 46 of the 1977 Soviet Constitution, the multinational demographic characteristics of the Soviet nationalities were recognized and incorporated in education:

Article 27. The state concerns itself with protecting, augmenting and making extensive use of society's cultural wealth for the moral and aesthetic education of the Soviet people, for raising their cultural level.

Article 36. Exercise of these rights is ensured by a policy of all-round development and drawing together of all the nations and nationalities of the USSR, by educating citizens in the spirit of Soviet patriotism and socialist internationalism, and by the possibility to use their native language and the languages of other peoples in the USSR.

Article 45. Citizens of the USSR have the right to education. This right is ensured by free provision of all forms of education, by the institution of universal, compulsory secondary education, and broad development of vocational, specialised secondary, and higher education...; by the opportunity to attend a school where teaching is in the native language...

Article 46. Citizens of the USSR have the right to enjoy cultural benefits. This rights is ensured by broad access to the cultural treasures of their own land and of the world that are preserved in state and other public collections; by the development and fair distribution of cultural and educational institutions

throughout the country; by developing television and radio broadcasting and the publishing of books, newspapers and periodicals, and by extending the free library service; and by expanding cultural exchanges with other countries (USSR Const., 1977).

These principles of Soviet education agree with the following aspects of multicultural and intercultural education: Multicultural education takes place if cultural diversity is incorporated in schools and community (Gundara, 2010); intercultural education presupposes multiculturalism (UNESCO, 2006) and addresses “broader taxonomic features of difference and diversity... through intercultural policies and practices” (Gundara, 2010, p. 299). However, in practice, Soviet education did not overlap with principles of multicultural and intercultural education; on the contrary it promoted Soviet monoculturalism based on acculturation and assimilation by means of Russification, Sovietization, and Soviet internationalization. Haarman and Holman (1997) indicated that Soviet authorities officially recognized “the distinctiveness of national cultures... but only as a subcategory of social uniformity” (p. 116). Another example of monocultural education strategy is evident from the lecture by Onushkin (1969) who stated that Soviet education ignored religious backgrounds and promoted “scientifically-oriented atheistic outlook in students” (p. 2). In addition, Haarman and Holman (1997) revealed that the Soviet bilingual curriculum was skewed towards the dominance of Russian and “enabled Russian to become the most important vehicle for professional advancement, in addition to which it enabled the mobility of the workforce” (p. 122). Soviet bilingual curriculum consisted of four phases, in which the last phase precluded mastery of professional Russian terminology (Haarman & Holman, 1997). It is instructive

to note that the dominance of Russian in bilingual education was not portrayed as an aftermath of power inequality, but as a love and respect towards Russians and their language (Kreindler, 1997).

Sovietization and Russification processes promoted a gradual decline of schooling in native languages of non-Russian nationalities and contradicted the principles outlined in the articles of the Soviet constitutions quoted earlier. Anderson and Silver (1990) examined a pattern of education of indigenous non-Russian nationalities with native-language instruction for all 52 years of existence of the USSR. They reported that a relatively high number of languages of different nationalities were included in Soviet education: 65 out of 81 nationalities received instruction in their native language for math-science or language-literature in 1934-1940. By 1981-1985 the number of nationalities receiving instruction in their native language decreased by half for math-science and from 65 to 52 for language-literature (Table 1). According to the 1929, 1979 and 1989 census, there were at least 175 distinct nationalities in the USSR.

From elementary to graduate level, Soviet education was standardized, insensitive to local conditions, and indoctrinated by the Communist Party. School curricula did not foster international and intercultural understanding, but rather promoted faithfulness to Marxist-Leninist ideology. An integral part of Soviet curricula was *international upbringing*, the purpose of which was a worldwide promotion of communist ideology. This concept of international upbringing was infused in school subjects, school environment, and extracurricular activities provided by Communist youth palaces and centers (Rosen, 1971).

Table 1

Number of Indigenous Non-Russian Nationalities with Native-Language Schooling, 1934-1985, by Type of Schooling

Years	Used to teach math-science	Used to teach language- literature	Used for either math-science or language- literature
1934-1940	64	65	65
1941-1945	49	44	51
1946-1950	50	51	52
1951-1955	50	49	51
1956-1960	52	55	55
1961-1965	47	52	52
1966-1970	39	49	49
1971-1975	36	53	53
1976-1980	35	53	53
1981-1985	32	52	52
At any time in 1934-1985	67	67	67

Note: Estonians, Latvians, Lithuanians, and Tuvians included at all dates even though their basic territories were annexed to the USSR in 1940. Adapted from “Some factors in the linguistic and ethnic Russification of Soviet nationalities: Is everyone becoming Russian?” by B. A. Anderson and B. D. Silver, 1990, in L. Hajda and M. Beissinger (Eds.), *The nationalities factor in Soviet politics and society* (pp. 95-130).

Intercultural and international component in higher education of the USSR

The Soviet authorities placed a large emphasis on the development and support of higher education throughout the country. The Deputy Minister of Higher Education of the USSR, Prokofiev (1961) indicated that the main achievement of “cultural revolution” in higher education was its accessibility to all peoples of the Soviet Union. On the one hand, it can be argued that Soviet higher education embraced multiculturalism by being offered

to all cultural groups. As Onushkin (1969) asserted, the availability of higher education institutions in many cities and towns “create[d] a new cultural atmosphere for really equal conditions for the development of the Soviet people as a whole” (p. 5). In addition, it could be argued that Soviet higher education had a strong international and intercultural element because the Soviet authorities highly encouraged international student and scholar exchange. For example, Soviet professors, researchers, and students participated in numerous international unions, conferences, and meetings; Soviet libraries conducted international exchange of scientific publications; domestic professors visited and lectured in foreign Universities and vice versa; and international student exchange opportunities were available (Prokofiev, Chilikin, & Tulpanov, 1961).

On the other hand, it is apparent that international links of Soviet higher education institutions were established not to promote intercultural education and multicultural cooperation, but rather to promote socialism and to combat the free market ideology of capitalist countries. The Soviet authorities were primarily concerned with “the power of the Soviet state and Communist ideology, which must be preserved, strengthened, and extended, rather than mutual accommodation and achievement of world understanding” (Rosen 1971, p. 4). During international academic exchanges, Soviet students were expected to enrich their scientific and technical knowledge, but not to be influenced by anti-Soviet ideas (Rosen, 1971). At the same time, foreign students in the USSR were schooled in highly specialized areas under conditions of government-controlled Communist indoctrination (Rosen, 1971) that promoted their allegiance to the ideas of Soviet proletarians, technocrats and political ideology so as further propaganda in their home countries (Tsvetkova, 2008).

In the conditions of the Cold War (1945-1990), the field of comparative and international education became an arena for ideological battles in education between the two superpowers of the United States and the Soviet Union. These circumstances gave rise to the development of new graduate programs in international and comparative education (Steiner-Khamisi & deJong-Lambert, 2006). At that time, comparative and international education researchers were focused on the contrastive comparisons between the rivaling ideologies and did not question the political and economic foundations of education and their impact on domestic developments (Steiner-Khamisi & deJong-Lambert, 2006). During the Cold War, both the Soviet Union and the United States worked strategically to gain favor of foreign dominant groups so as to promote their ideology – socialist by the USSR and capitalist by the USA (Tsvetkova, 2008). To achieve this goal, both superpowers promoted strategies in higher education exchange: “First, they selected foreign nationals to attend and receive instruction at American or Soviet educational institutions (mainly at the postsecondary level). Second, they exposed participants in such programs to ideas and practices in line with the dominant ideology of the American or the Soviet system” (Tsvetkova, 2008, p. 199). Unlike the United States, the USSR focused on recruiting underprivileged students from the Third World countries for access to a Soviet education. Scholarships were provided to those foreign students who displayed interest to promote socialism in their countries (Tsvetkova, 2008). However, Soviet diplomas only supported the career growth of foreign students who came from the countries that supported socialist ideology (Tsvetkova, 2008).

In sum, it can be argued that despite being a multicultural (or multinational in Soviet vocabulary) state, and having democratic legal provisions in terms of cultural

pluralism and equal access to education as outlined in the Soviet constitutions, the USSR practiced monocultural authoritarian methods of Sovietization, Russification, and Soviet internationalization. The Soviet “democracy” in relation to education was a barren ground in which to nurture multiculturalism and intercultural education. As Valadez (2001) indicated, “to create fair and sustainable multicultural democracies, it is necessary to adequately address the dilemmas of intercultural understanding and cooperation, the proper political relationship between a culturally diverse citizenry and the state, and minority demands for cultural, political, and economic self-determination” (p. 4).

Intercultural Issues in Education and Policy-Making in Post-Soviet Ukraine

Diversity and Intercultural Situation in Modern Ukraine

As described earlier, Ukraine is a multicultural and multiethnic country, with more than 100 ethnic groups. Following the collapse of the USSR in 1991, intercultural relations between these diverse cultural groups in Ukraine became polarized into pro-European west and pro-Russian east, a divide which has produced political, ideological, religious, and linguistic tensions, and now greatly exacerbated in the light of recent Maidan events. This conditional division is an aftermath of not only the Soviet regime but also of the occupation of different regions of Ukraine by different countries. Historically, different regions of Ukraine “had been exposed to diverse cultural and civilizational influences until they were finally unified by the Bolsheviks in the quasi-sovereign Ukrainian Soviet Socialist Republic” (Riabchuk, 2009, p. 19). Before the Soviet Union, Western *oblasts* (regions) of Ukraine had been under the Polish, Austro-Hungarian, Romanian, and Czechoslovakian rule, while eastern and southern oblasts had been under the influence of Russia (Riabchuk, 2009; Shulman, 1999). As a result, in southeastern

oblasts of Ukraine, “multiethnicity has not translated into multiculturalism... but instead has provided a nutrient substance for the Soviet-style melting pot” (Riabchuk, 2009, p. 21). The theoretical underpinnings of the “east-west” cleavage in Ukraine are reflected in Elster, Offer and Preuss (1998) who determined two kinds of cleavages innate to the postcommunist transition:

(1) those of a political-ideological kind that divide the population into those who have been loyal or acquiescent under the old regime, including its elites and activists and those who identify themselves as its ... opponents or victims, and (2) those cleavages of an identity-based kind that divide the population into members of the titular nation and religious, linguistic, and ethnic majorities of various kinds. (p. 249)

This conditional division of the country along *fault lines* (Huntington, 1996) is also interconnected and reflected in voting patterns and religious affiliation – Ukrainian Orthodoxy of the Kyiv Patriarchate and Greek-Catholicism of the west and Ukrainian Orthodoxy of the Moscow Patriarchate of the east part. As Pachlovska (2009) pointed out, the current pro-Russian president of Ukraine, Yanukovych, did not separate the Ukrainian Orthodox Church of the Moscow Patriarchate (UOC MP) from his election campaign and, moreover, the UOC MP “declared itself against all religions in Ukraine that supported the political opposition: Ukrainian Orthodox (Kyiv Patriarchate) and Jews, Catholics and Moslems, Protestant and Buddhists” (Pachlovska, 2009, p. 42). Pachlovska (2009) takes this argument further by stating that Ukraine is divided into multireligious and multicultural “European” part and monoreligious and monocultural “Soviet” part (p. 45).

Intercultural tolerance and xenophobia in Ukraine

Overall, the population of Ukraine does not express high level of tolerance towards the representatives of other cultural and racial groups. The data of Kyiv International Institute of Sociology (KIIS) revealed that in 2010 Ukrainians expressed the highest level of tolerance—do not mind if the following three ethnic groups live in Ukraine—to Ukrainian-speaking Ukrainians (96%), Russian-speaking Ukrainians (94%), Russians (85%), Byelorussians (76%), and Jews (63%). Less than half of Ukrainians agree that the following groups should live on the territory of Ukraine: Black population (22%), Germans (38%), Roma (37%), Canadians (36%), Americans (35%), and French (33%) (KIIS, 2010). In addition, the results of the KIIS (2010) survey indicated that the level of xenophobia in Ukrainians is somewhat high, as measured on a scale of social distance (Bogardus, 1933) from 1 (“would agree if the representatives of this group become members of their family” to 7 (“would not let the representatives of this group enter Ukraine”; Figure 3). From the results of the survey, we can infer that the Ukrainian population is still not prepared for a smooth transition to a multicultural European society. The results also point to the need of systematic promotion and support of intercultural education in the country.

Figure 3: Indices of Xenophobia in Ukraine

Note. Adapted from “Толерантність населення України,” by Kyiv International Institute of Sociology, 2010, <http://www.kiis.com.ua/?lang=eng&cat=search>. Copyright 2010 by Kyiv International Institute of Sociology.

Languages in Ukrainian education

The linguistic diversity of Ukraine is part of the pro-European west and pro-Russian east division of the country. The predominantly Russian-speaking east and Ukrainian-speaking west add to the complexity and tensions in the country. After the fall of the Soviet Union in 1991, the Ukrainian language was declared the only state language of the independent Ukraine; a move that reversed its previously low status and undermined the previously established supremacy and prestige of the Russian language (Bilaniuk, 2009). According to the data in the Country Report (2010), the Ukrainian language is the mother tongue of 64.3% of the population; the Russian-speaking population totals 36.4% of the country. Other languages are numerous, though only spoken by a small number of other cultural groups (1.5%), and include Moldavian,

Hungarian, Gagausian, Armenian, Azerbaijanian . In the aftermath of Russification in Ukraine, the Ukrainian and other non-Russian languages are in a weakened position, especially in the eastern and southern oblasts. After being marginalized and denigrated by the Soviet and tsarist Russia, the Ukrainian language is now increasingly used in political, cultural, public (Bilaniuk, 2009), and educational contexts. However, it “has not lost all of its connotations of low prestige and backwardness, and in many contexts Russian retains the prestige and power that it had in the Soviet Union” (Bilaniuk, 2009, p. 337). Currently, only 41.8% of the Ukrainian population prefer to speak Ukrainian, while 36.4% consider Russian as their language of communication and 21.6% self-identify as bilingual (MESU, 2010). The relationship between language diversity and other forms of cultural diversity was identified by Romaine (2011) who argued that languages are “a benchmark for cultural diversity because virtually every major aspect of human culture ranging from kinship classification to religion is dependent on language for its transmission” (p. 377). Therefore, the issue of Ukrainian language and languages of minorities in Ukrainian education is important in how the language diversity is represented and accommodated in Ukrainian schools and higher education institutions.

According to the Country Report prepared by the Ministry of Education and Science of Ukraine (MESU, 2010), based on the results of the All-Ukrainian poll of the Sociology Institute, most students study in Ukrainian (80.4%), while schooling is available in languages of minorities as well as shown in Table 2.

Table 2

Languages in Ukrainian Schooling

Language	Number of Schools for language of schooling	Number of Pupils for language of schooling	Number of pupils taught this language as a subject
Ukrainian	16677	3541190	788043
Russian	1154	739819	1284505
Hungarian	88	21092	861
Romanian	66	15596	1198
Crimean-Tatar	15	5592	16318
Moldavian	6	4300	1609
Polish	5	1401	9245

Note: Adapted from “Country Report,” by the Ministry of Education and Science of Ukraine, 2010, p. 21.

The same study reports that there is a trend toward an increase in the representation of the languages of minorities in Ukrainian education from 0.45% in 2001 to 1.13% in 2007/2008 (MESU, 2010). However, proficiency in Ukrainian is required to for students to continue their education. Since 2010, education testing has been conducted in Ukrainian only, though previously the language provisions were offered for the minority groups (MESU, 2010). The representation of the languages of minorities in higher education as the language of instruction is not as diverse as it is in secondary education—ten languages in higher education institutions in comparison to 19 in secondary schools (MESU, 2010). However, the use of minorities’ languages in higher education is not be confused with the use of foreign languages as languages of instruction for majors in foreign languages.

Multiculturalism, nationalism, and national interculturality in Ukraine

In this section the researcher focused on the debate on multiculturalism and nationalism, and their applications in post-Soviet Ukraine. Multiculturalism and nationalism can be seen as two rivaling approaches. According to Kuzio (2005), multiculturalism in a democratic society seeks to reconcile nationalist particularism with universal liberalism while ameliorating tensions between the titular nation and national minorities. In practical terms, multiculturalism teaches intercultural sensitivity and tolerance, promotes cultural diversity and equal opportunity of minorities, and supports integration of different cultural groups within a larger society without assimilationary pressure from the titular majority. Kuzio stated that in multicultural societies, “a single culture promoted in the public domain is combined with tolerance for different cultures within the private sphere” while “the public domain of legal system, politics and economics are dominated by the common culture of the nation-state” (p. 223). The author further argued that most Western nation-states are advocates for multiculturalism; however, at the same time they fear that multiculturalism would undermine their national integration. Although only Canada, Australia and Sweden fully adopted multicultural policies, Western scholars and politicians have recommended implementation of multicultural policies in post-Soviet countries (Kuzio, 2005).

Nationalism can take a liberal (civic) or an illiberal (ethnocentric) form and, in fact, most Western countries combine both (Kuzio, 2005). According to Kymlicka (2001) liberal nationalism does not impose national identity on the minorities; rather public institutions carry the character of the dominant culture, but minorities are free to express themselves in their language and culture. An illiberal nationalism encourages coercion in

promoting national identity and prohibits practices that challenge the dominant power. Liberal national policies include representatives of different cultural groups in their community, while illiberal national policies prevent integration of other groups in the dominant community (Kymlicka, 2001). Therefore, it can be argued that the principles of multiculturalism are close to liberal nationalism and can be considered as juxtaposition only to illiberal (ethnocentric) nationalism.

The academic discourse of post-Soviet states favored the essentialist (therefore illiberal) view of ethnicity and nationality inherited from the Soviet nationality policy. However, the discourse also took into consideration some Western theoretical approaches (Wolczuk & Yemilyanova, 2008). Consequently, the official policies of many post-Soviet states included a blend of Western and Soviet theoretical approaches that resulted in an incoherent ethno-cultural political agenda (Wolczuk & Yemelianova, 2008). Such inconsistency in national politics presents at least one reasonable explanation of involuntary adoption of multiculturalism by the post-Soviet states outlined by Marty and Appleby (1997). The authors argued that these states had no choice but to start a gradual transition from nationalism to multiculturalism due to problems associated with minorities, especially with the Russian majority minority. They further stated, “No matter how seductive the temptation of cultural retribution may have been, each of the new states soon understood that it could not afford to lose its Russians, who were overwhelmingly the managers, engineers, doctors, teachers, and technicians that the new states needed to survive” (p. 83).

However, Marty and Appleby’s (1997) argument is misleading. Including only one minority—even a majority minority—in national policy-making, while ignoring the

rights of other minorities, is not multiculturalism, but favoritism. In other words, those post-Soviet countries that recognize only the Russian minority as equals in institutional and public domains but exclude other groups do not follow multicultural principles. In fact, Kuzio (2005) examined some of policy recommendations for post-Soviet states that are based on favoritism and have skewed understanding of multiculturalism and interculturality:

- Introduce two state languages (titular and Russian);
- Recognize Russophones as constituting a coherent “people”;
- Add a second titular nation (Russian);
- Introduce a federal state;
- Provide group rights to national minorities;
- Do not introduce any “nationalist historiography”;
- Adopt no “nationalist symbols”. (p. 226)

Kuzio (2005) commented that such policies would not promote national integration or alleviate intercultural conflicts in Ukraine; instead, they would support the remnants of ethno-cultural and post-colonial status quo that existed in the USSR. Indeed, the adoption of such “multicultural and intercultural” policies in Ukraine had detrimental ethno-cultural consequences for native Ukrainians. Firstly, due to the Russification practices and the low status of the Ukrainian language during the Soviet years, the restoration of the prestige and spread of the Ukrainian language was next to impossible in the Russophone oblasts of Ukraine. As Kuzio (2005) argued, it was the adoption of Ukrainian as the only official language in the country that would promote the growth of its prestige. Next, it should be emphasized that when implementing multiculturalism along

the lines of civil nationalism, a distinction should be made between national (indigenous) minorities and immigrant groups, and appropriate ethno-cultural support should be provided by the state. In concurrence with the demands of multiculturalism and interculturalism, ethno-cultural minorities should have a right to rebuild, sustain, and consolidate their own culture with the dominant culture of the state (Kymlicka, 2001). On the other hand immigrant (non-native) groups should be free to use their language and sustain their culture in the public sphere but not obtain the same *political* privileges as the national language and the languages of national minorities because they have an external homeland and not are an indigenous to the country to which they immigrated to (Kuzio, 2005). Therefore, Russians should not be entitled to have more special privileges over other immigrant groups in Ukraine because they are colonial settlers who are not indigenous to Ukraine and have their own external homeland (Kuzio, 2005).

Intercultural education in laws, policies, and education system of Ukraine

Given the current ethnic, linguistic, religious, and political tensions based on conditional “east-west” divide of Ukraine, and an ever-increasing communication with other countries through many different globalization processes, intercultural education is needed to provide intercultural competence, intercultural sensitivity, tolerance, and cooperation between different cultural groups living in Ukraine and those groups beyond its borders. This interculturality can be achieved under the conditions of multiculturalism as a result of exchange and dialog between the representatives of different cultures on the local, regional, national, and international level (UNESCO, 2006).

However, the development and implementation of intercultural education in Ukrainian curricula is still at an early stage. The Ministry of Education and Science of

Ukraine has started the infusion of intercultural education in geography, history, and ethics and is currently revising textbooks to address multiculturalism (MESU, 2011). On its website, the Ministry recognizes and supports intercultural education as a means of promoting understanding between the Ukrainian majority and minorities, foster mutual respect, understanding, and tolerance. The Ministry emphasizes the following aspects of intercultural education – “право на визнання унікальності, своєрідності кожної людини, її духовного внутрішнього світу, повагу до прав дитини на свободу, щастя і всебічний розвиток, реалізацію її здібностей” (*in my translation* – a right of recognition of uniqueness and specific features of every person, his or her spirituality, respect of children’s human rights and freedom, happiness, the whole development of a child and realization of his or her abilities; MESU, 2011).

Despite the State recognizing the importance of implementing intercultural education in higher education, “educational policies and practice are still monocultural and rather ethnocentric, which can be supported by the minimal degree to which teacher candidates recognize the necessity of multiculturalism and their general lack of sophistication in understanding the notion of tolerance” (Koshmanova & Ravchyna, 2008, p. 150). Intercultural education is not clearly mentioned in either Ukrainian government documents, or national education policy documents. Fimyar (2008) scrutinized selected education policy documents and found a number of inconsistencies, controversies, and vagueness in policy texts. For example, Appendix 428/48 2-3 defines key competencies for a globalized world—citizenship skills, multicultural skills, literacy, ICT documents/IT skills, and life-long learning skills—but does not elaborate on the competencies any further. At the same time, Ukrainian policy makers follow the principles of

multiculturalism by granting citizenship to all residents, notwithstanding their origin or language; establishing the Ukrainian language as the only state language without imposing it on minorities; providing financial support to the institutions that engage different ethnic groups; and allowing access to government positions independent of the ethnicity (Hajda, 1993). Articles 10 and 53 of the Constitution of Ukraine protect maintenance and education in languages of national minorities:

Article 10

In Ukraine, the free development, use and protection of Russian, and other languages of national minorities of Ukraine, is guaranteed.

Article 53

Citizens who belong to national minorities are guaranteed in accordance with the law the right to receive instruction in their native language, or to study their native language in state and communal educational establishments and through national cultural societies (Ukrainian Const. art. 10; Ukrainian Const. art. 53).

The support of intercultural and international education, communication, and cooperation is implied in many Ukrainian government policies. For example, Article 6 in Law of Ukraine “On Education” states that “organic connection with the world and national history, culture, [and] traditions” as well as “interrelation with education of other countries” are two out of 12 underlying principles in Ukrainian education. Article 64 in the same document encourages and promotes international cooperation in the field of education:

1. Educational and scientific institutions, scientific-production establishments of the system of education, organs of the state control over education shall have

the right to enter into agreements on cooperation, set up direct connections with educational institutions and scientific establishments of the system of education of foreign countries, international organizations, funds etc. in accordance with applicable Ukrainian legislation.

2. State educational and scientific institutions, scientific and production establishments of state system of education, organs of the state control over education shall have the right to carry out foreign economic activities in accordance with applicable legislation under agreements entered into between them and foreign legal entities and individuals, have their own currency account, create joint ventures.
3. The Ministry of Education of Ukraine, ministries and departments governing educational institutions, the Supreme Certification Commission of Ukraine together with other state institutions and organizations shall carry out work related to the establishment of the equivalency of certificates and diplomas, international recognition of training courses, qualifications, academic degrees and ranks.
- 4 ...The state shall further international cooperation of educational institutions and education governing bodies, provide them with relevant currency allocations...

Legal examples of Ukraine's support and encouragement for intercultural and international cooperation in higher education can be found in *Law on Higher Education* (VRU, 2002). One of the principles of Ukrainian higher education is stated in Article 3: as being "Pursuit of the international integration of Ukrainian higher education, while

preserving the achievements and traditions of the national system”. Articles 66 states that the state encourages and supports international cooperation in higher education. Article 67 states that higher education institutions have a right to make agreements on cooperation with international education institutions and other international organizations; among the main principles of international cooperation for higher education institutions are academic exchange of students and faculty, joint research, participation in international conferences, symposia, etc., and participation in international education and research programs (VRU, 2002). In addition, according to Article 27 of Law on Higher Education (VRU, 2002), Ukrainian higher education institutions may create their subdivisions abroad and foreign higher education institutions may create their subdivisions on the territory of Ukraine.

Hurenko (2009) argued that ideally, the priorities of multicultural education in Ukraine should derive from the priorities of democratic and multiethnic Ukrainian society. Therefore, they should reflect the ideas of equity between ethnic, religious, linguistic, and cultural groups of the country; encourage development of national cultural life that includes majority and minority groups; support understanding and respect of all groups; teach patriotism and tolerance; promote intercultural communication; and solve and avoid intergroup conflicts (Hurenko, 2009).

However, an explicit manifestation of intercultural education in Ukrainian curricula of elementary, secondary, or post-secondary education is difficult to find. This lack may be explained by the fact that intercultural education is still a novelty in Ukraine and that there is no theoretical and practical research agenda in national education. As Hurenko (2009) argued, Ukraine still needs to create a model of multicultural education based on comparative analysis of international approaches. Back in 2001, Podkopayev at

el (2001) revealed that intercultural education was mostly ignored in Ukrainian school curricula; culture and languages of Ukrainian national minorities were studied only by the minorities or linguists; and teachers were insensitive to intercultural issues in the classroom. The researchers conducted a content analysis of Ukrainian textbooks in schools and found that the textbooks on humanities did not contain information about Ukraine as a multinational and multicultural country, the textbooks on world literature and history had a Eurocentric inclination, and textbooks on Ukrainian country studies and history promoted negative stereotypes of representatives of the neighboring countries (Podkopayev et al., 2001).

The Council of Europe (2012) provided a short overview of intercultural education in Ukraine that demonstrated some current positive changes in the field since Podkopayev et al (2001) published their research. However, there is not enough evidence to confirm that structural changes have taken place in intercultural education in Ukraine. The examples below of implementation of intercultural education demonstrate that some stakeholders in Ukrainian education have made efforts to implement intercultural topics in curricula. As the Council of Europe (2012) indicated,

Each school in Ukraine has special hours dedicated to peace and tolerance when students learn about other cultures. In many educational establishments, including high schools, there are classes on the EU and European values... The programmes focus mainly on shared European values, tolerance principles, equality and information about world cultures...

Many schools, especially with foreign language education, organise days of specific cultures, festivals, and develop correspondence with respective schools

and institutions in other countries. Many international organisations (e.g. the British Council, Goethe Institute) carry out special competitions for literature or journalism or film works about the vision of European history, present or future, among high school or university level students in Ukraine.

There have also been different initiatives on the city and county levels. For example, many intercultural projects are executed by the department of education in the city of Melitopol, a participant of the CoE Programme "Intercultural cities"; in particular: international projects of the club of youth diplomacy "Leader XXI" at Melitopol Gymnasium number 5 – Model United Nations of Goldberg 2009, 2010; dance project "Meeting at Elbe" (2009-2010); and activities of the Belgium Club at Melitopol Gymnasium number 19.

Since Ukraine has gained independence, it has developed and implemented its own education policy based on national and Western standards and incorporated the ideas of multiculturalism and interculturality. Kremen and Nikolajenko (2006) indicated that the education policies in Ukraine aim at “attaining European standards in terms of access to education, revival of national traditions, modernizing content, forms and methods of teaching, and the development of the nation’s intellectual capital” (p. 18). Currently, a few Universities and technical schools in Lviv, Ivano-Frankivsk, Uzhorod, and Chernivtsi provide teacher education in the languages of Ukrainian minorities (Kremen & Nikolajenko, 2006).

At the same time, the remnants of authoritarianism inherited from the Soviet times are still present in the Ukrainian education system. As stated in Chapter 1, Koshmanova and Ravchyna (2008) argued that the Ukrainian educational system “is not designed to

prepare the types of specialists needed for the country's democratic future" (p. 154). The authors pointed out that in higher education, "instructors accept innovations skeptically and do not acknowledge any frustration [over inefficient education reforms] because, in their understanding, educational reform invited chaos into the curricula, limiting students' knowledge, classroom discipline, and methods of instruction and assessment" (p. 154). In addition, the methods of instruction are monocultural. Besides, Koshmanova and Ravchyna's (2008) study revealed that teacher educators hold "negative stereotypes of authoritarian education... at the level of philosophy, theoretical assumptions, teaching methods and strategies" (p. 154). In other words, Ukrainian faculty and students still need to develop an adequate degree of intercultural competence so as to be able to move beyond xenophobia, stereotypes, and monoculturalism towards the reconciliation of east-west tensions, celebration of cultural diversity, and smoother integration in the multicultural European society.

As Kremen and Nikolajenko (2006) officially reported to the UNESCO European Center for Higher Education, the top three priorities of education policy in Ukraine are "the further development of the national education system, its adjustment to a new economy, and its integration into the European and global community" (p. 11).

Internationalization of higher education is viewed positively by Ukrainian policy-makers where the goals are to fully integrate Ukrainian higher education into the European Higher Education Area (EHEA) and the European Research Area (ERA), and increase its competitiveness and compatibility with higher education of other countries, while preserving national achievements and traditions of higher education (Kremen & Nikolajenko, 2006). Legal provisions for Ukraine's support and encouragement of

international cooperation in higher education can be found in *Law on Higher Education* (VRU, 2002). For example, Article 3 indicates that one of the principles of Ukrainian higher education is the “[p]ursuit of ... international integration of Ukrainian higher education, while preserving the achievements and traditions of the national system”. Article 66 states that the state encourages and supports international cooperation in higher education. Article 67 provides higher education institutions with a right to make agreements on cooperation with international education institutions and other international organizations. Specifically, some of the main principles of international cooperation for higher education institutions are academic exchange of students and faculty, joint research, participation in international conferences, symposia, and research programs (VRU, 2002). In addition, according to Article 27 of Law on Higher Education (VRU, 2002), Ukrainian higher education institutions may create their campuses abroad and foreign higher education institutions may create their subdivisions on the territory of Ukraine.

The Ministry of Education and Science of Ukraine encourages faculty and student mobility and is supportive of international agreements in higher education. As of 2006, Ukraine had 82 inter-governmental and 46 inter-departmental agreements relating to education with 60 countries (Kremen & Nikolajenko, 2006). A big step towards higher education internationalization was made when the country entered Bologna agreement in 2005. The main objective of the Bologna process is the creation of a European Higher Education Area with the purpose of making higher education of the participating countries comparable and compatible and also to spur student and scholar exchanges within and beyond Europe (European Commission, 2011). Another example of cooperation between

higher education institutions in Ukraine and international organizations was the implementation in 1993 of the European Union's program Tempus.. This program supports cooperation and modernization of higher education in the countries of EU and its partner countries by means of higher education projects (Tempus, 2011). The program has "facilitated internationalization of Ukrainian universities, helped to establish long-term partnerships between them and their European counterparts that did not stop after project completion, and assisted with initiation of new research projects or exchange programs" and "helped to set up a dialogue between higher education institutions and Ministry of Education and Science or its regional branches; between faculty and administration; between employers, teachers and students" (Tempus, 2011).

Intercultural Competence and Selected Demographic Characteristics of Educators and Students

Intercultural competence is a necessary characteristic for modern educators so as to help them better understand, address, and prepare their students for global engagement. As Cushner and Mahon (2009) argued, intercultural competence should be the central requirement for teacher preparation programs. The level of intercultural competence of educators may increase students' level of intercultural competence, if intercultural education is infused in curriculum and appropriate teaching methods are used. A qualitative case study conducted by Moloney (2008) in an Australian primary school revealed a positive relationship between the level of intercultural competence of foreign language teachers and their students. In a qualitative study of Taiwanese EFL/ESL faculty, Cheng (2012), however, reported that the professors' understanding of intercultural competence did not translate into positive growth of intercultural competence of their

students. Possible reasons for the opposite results were inappropriate curriculum and teaching practices, such as “1) teaching based on textbooks/teaching materials [where American culture and values were dominant]; 2) a lack of emphasis on culture teaching and learning in the curriculum; 3) linguistic skills outweigh all other concerns; 4) multimedia is rarely used to facilitate teaching; 5) the avoidance of unfamiliar cultural topics; and 6) an emphasis on a teacher-centred approach” (Cheng, 2012, p. 173). In addressing the problem of teaching practices that are not appropriate for fostering students’ intercultural competence in foreign language classes, Rollin (2007) argued that teachers should avoid imitating a target language speaker or ask students memorize facts, but enable interactive learning practices that promote students’ understanding of ethical, social, and political issues of the other culture.

A large body of research literature reports on relationships between intercultural competence and a number of demographic variables, such as gender, foreign language proficiency, school type, education level, age, the length of teaching experience, ethnicity, and religious denomination. A detailed review of these studies is beyond the scope of this chapter. Thus, the researcher briefly outlined some of the research findings that led to the choice of specific demographic variables used for the purpose of this dissertation – intercultural experience, teaching experience, age/ the length of tenure, and academic discipline. In addition, this section includes a brief overview of studies analyzing a role of language knowledge and gender differences in relationship to intercultural competence.

Intercultural Experience

Recommendations for intercultural teaching practices and learning experiences that increase educators’ and students’ intercultural competence are usually linked to

intercultural experience. According to Garmon (2004), intercultural experience is one that provides an “opportunity for direct interaction with one or more individuals from a cultural group different than one’s own” (p. 207). He further suggested that it is not enough for pre-service teachers to have the required predispositions for diversity, but they need to have real-life intercultural experiences and diversity training (Garmon, 2004). For Byram (2006), intercultural competence leads to intercultural citizenship and requires learners to be engaged in activities with people from different cultures and take action on local, regional, national, and international level.

Intercultural experiences, or experiences of cultures other than one’s own, can be very diverse, thus creating complexities in their classification and measurement. So far, there is no research that classifies and measures all possible types of intercultural experiences. The reviewed theoretical and empirical literature dealing with the relationships between intercultural competence, intercultural development, intercultural sensitivity, and intercultural experiences used one or more specific components of intercultural experiences to test the relationships. Examples of these include the number of years living in another culture (Westrick & Yuen, 2007), the number of years living abroad (Jon, 2009), the length of international travel (Mahon, 2006; Olson & Kroeger, 2001), the number of hours of intercultural-focused training or professional development (DeJaeghere & Zhang, 2008; Spanierman, 2011), the number of semesters studying abroad (see below), the number of intercultural friendships (Bhawuk & Brislin, 1992), intercultural marriage (Karnyshev & Kostin, 2009), the number of ethnic foods tried (Bhawuk & Brislin, 1992), and an experience of theater from different countries (Fleming, 2003). An empirical study conducted in Russia (Karnyshev & Kostin, 2009) revealed that

the age group of 35-40 year-old adults has had a broad range of intercultural experiences as reported by their high school-aged children. It includes travel abroad (47.5%); work with international business partners (27.3%); interaction with international tourists (23.6%); relations with international trade professionals (16.7%); and participation in international competitions and Olympiads (11.5%). Interestingly, the young adults reported that they intended to have a much higher level of intercultural experience than their parents. Karnyshev and Kostin (2009) found that the older age group did not have such a broad range of intercultural experiences in the late 1960s-early 1980s, but did not point to any empirical evidence supporting their claim.

International education programs such as study and training abroad programs for students and professionals, as well as international service learning provide a good opportunity for intercultural teaching and learning (Alred, 2003; Deardorff, 2006; Gillespie, Braskamp, & Dwyer, 2009; Hammer, 2004; Cushner & Karim, 2004; Plater, Jones, Bringle, & Clayton, 2009; Rollin, 2006; Vande Berg & Paige, 2009). According to Murphy-Lejeune (2003), experiences of study abroad create “an extensive natural learning situation” (p. 101) and stimulate a number of competencies, skills, and attitudes that students would not be able to achieve by means of domestic education experiences alone. International students undergo a process of self-formation and evolvement as a result of intercultural interaction with peers, education institutions, and social and cultural realities of the host country (Marginson & Sawir, 2011). It is important, however, to implement a cosmopolitan approach to international education that will help students and educators understand and communicate using different cultural lenses, without losing their own cultural standpoint (Marginson & Sawir, 2011), while keeping in mind that some values

that reach beyond the proper human behavior should be universally condemned (Byram, 2006).

Notwithstanding the purpose –whether for business, study, or pleasure - travel outside of one’s cultural location or country, intercultural interactions and friendships may positively influence one’s intercultural competence (Kushner & Mahon, 2009; Karnyshev & Kostin, 2009). As Karnyshev and Kostin (2009) argued, tourism strengthens international and intercultural relations by revealing the uniqueness and authenticity of different cultures, as well as promoting care and respect for different political, social, and religious life of representatives of other cultures. By analyzing findings from a number of studies using the Intercultural Development Inventory (IDI; Hammer & Bennett, 2003), Kushner and Mahon (2009) concluded that those participants who had more intercultural interactions and intercultural friendships received higher scores on intercultural development. Karnyshev and Kostin (2009) also revealed that both parents and teachers who did not have parents of different ethnic groups reported more negative than positive relationships with the representatives of ethnic groups other than their own.

It is instructive to note, that intercultural experiences of living and working abroad do not always contribute to one’s intercultural competence and depend on the direction, purpose, and facilitation of international experiences (Alred, 2003; Skelly, 2009; Vande Berg & Paige, 2009). For example, Skelly (2009) criticized certain American study abroad programs that take a market-centric perspective to commodify international education and also make students experience the world from the perspective of American exceptionalism. Indeed, the main determinant of quality in both study abroad and in-country education programs is an “intentional and developmentally gauged” (Hovland,

McTighe, Skilton-Sylvester, & Jamison, 2009, p. 483) curriculum design that may help turn students into global citizens based on “intercultural competencies, multiple perspectives, ethical awareness, and deep knowledge” (Hovland et al., 2009, p. 483). In addition, Storti (2009) argued that an overseas experience is the third important quality of competent intercultural trainers, preceded by their content expertise and training design and platform skills.

Language Knowledge

There is no consensus on the role of languages in the development of intercultural competence. For example, Byram (2006) and Medina-Lopez-Portillo (2004) argued that foreign language competency contributes to one’s development of intercultural competence. This is in agreement with Patel, Li and Sooknanan (2011) who considered language as a medium of intercultural communication, but pointed out that the commonality of the language does not greatly reduce the high chances of miscommunication. Similarly, a Russian scholar Gotlib (2011) indicated that native and foreign languages are a means of socialization and cultural development leading to the construction of social identity; specifically, a mastery of language codes in intercultural communication contributes to socio-linguistic competence and erudition. According to Fantini (2009), the target language proficiency plays a central role in the development of intercultural competence by enhancing other constituent parts of intercultural competence, facilitating alternative communication strategies, and transforming one’s worldview. Likewise, the Council of Europe (2008) stated that language learning not only promotes intercultural conversation, but helps overcome stereotyping, bolsters curiosity and openness to other cultures. Deardorff (2006), however, reported a disagreement between

experts in the field of intercultural competence regarding the role of language in intercultural competence. As Zaharna (2009) noted, the strong perceived association between language and culture does not always lead to cultural awareness.

Gender

There is no agreement in research literature on the relationship between gender and intercultural competence, and there is no one cultural norm regarding gender roles in the society. As Hofstede (2009) noted, in masculine societies, the male's role is to defend the community and be tough, while the woman's role is to preserve its social structure and also be tough to survive unfavorable conditions; in feminine societies, both males and females are supposed to be sympathetic and peace-minded. At the same time, gender was considered an important demographic variable in quantitative and qualitative studies of intercultural competence (Hoff, 2008; Minucci, 2008; Spanierman et al., 2011; Yuen & Grossman, 2009; Phinney, Jacoby, & Silva, 2007; Westrick & Yuen, 2007). In a quantitative study of predominantly white faculty in a multicultural university in Guam, Johnson and Inoue (2003) found that the relationship between gender, years of teaching experience, and ethnicity of faculty, on the one hand, and their practice of multiculturalism in classroom, on the other hand, was not significant. Spanierman et al. (2011) did not find significant gender differences on Multicultural Teaching Competence Scale in the quantitative study of 248 pre- and in-service American teachers. Likewise, Mahon (2006) reported that the gender of teachers from nine midwestern schools did not significantly relate to intercultural sensitivity scales of Intercultural Development Inventory. As reported by Karnyshev and Kostin (2009), Russian high-school aged girls in Irkutsk oblast have had a much higher interest in intercultural issues than boys. Similarly,

American female undergraduate students at one southwestern college were found more likely to have positive intercultural attitudes than males (Kim & Goldstein, 2005).

Teaching Experience and Age

There is no agreement on the significance of relationship between intercultural competence/ intercultural sensitivity and teaching experience or age as demonstrated in the following studies. DeJaeghere and Zhang (2008) in a quantitative study of school teachers in one anonymous American suburban school district, found a small negative correlation between their intercultural development and the number of years teaching as measured by the Intercultural Development Inventory (IDI). Based on another quantitative study measuring intercultural sensitivity using the IDI of purposively selected 317 graduate and postgraduate student teachers in Hong Kong, Shanghai, and Singapore, Yuen and Grossman (2009) concluded that “teaching experience can contribute to the development of intercultural sensitivity” (p. 358). This statement, however, should be interpreted cautiously—the results of the study indicated that the mean scores of overall perceived IDI and overall developmental IDI were lower for the participants with 0-2 years of teaching experience, higher for the participants with more than 5 years of teaching experience, and the highest score received the participants with 2-5 years of teaching experience. In addition, no effect size was reported for the results and the sample was purposive and not representative of the population—it comprised of over 80% of 18-30 age group. Mahon (2006) used the IDI to measure intercultural development of 155 teachers from nine Midwestern elementary and secondary schools. Her findings indicated that the 51-60 age group showed consistent significant tendency to disagree with ethnocentric values and agree with ethnorelative values in comparison to younger age

groups. However, the 51-60 age group also agreed with minimizing values that reflect ethnocentrism. Similarly, another study of secondary teachers in four Hong Kong schools (Westrick & Yuen, 2007) was not able to find the correlation between the participants' intercultural sensitivity and age, except for one regression model that demonstrated that experience in other cultures and age combined accounted for 12% of variance in one of five stages of intercultural development in the IDI. Spithourakis, Karatzia-Stavlioti, and Roussakis (2009), however, found that the age of students of elementary education (ranging from 18 to 25) had a statistically significant effect on their intercultural sensitivity measured by Intercultural Sensitivity Scale (ISS).

Intercultural Competence in Different Academic Disciplines

Rapid globalization processes as well as European integration endeavors promote intercultural interaction and collaboration in different professional fields, such as dealing with international partners or working in culturally diverse teams. These processes make intercultural competence a necessary ability that may increase professional effectiveness and competitiveness of Ukrainian academia graduates and faculty in all academic disciplines. For example, intercultural competence may create a more credible and positive image for business professionals and the organizations they represent, evoke warm dispositions from representatives of different cultures, and help establish business connections (Karnyshev & Kostin, 2009). Successful international business managers are required to make interculturally sensitive global strategic decisions (Bücker & Poutsma, 2010). Consequently, curricula for business majors may include specialized lectures and seminars in history and philosophy of business and economics of different world regions,

information about business practices of specific cultural groups and their economic welfare, etc. (Karnyshev & Kostin, 2009).

Similarly, intercultural competence is necessary for prospective tourism professionals due to the multicultural contexts of their working environment which requires intercultural dialogue with clients of various cultural, linguistic, and ethnic backgrounds (Luka, 2012). In Yu's (2012) mixed-method study of undergraduate engineering students in one Midwestern university in the US, the majority of participants reflected on the importance of intercultural communication for their profession; many of them also pointed on cultural differences in conveying technical and professional information. Gourvès-Hayward and Morace (2010) advocated for the importance of implementation of intercultural education in French graduate schools of engineering and management to deal with challenges of globalization. Intercultural competency training is also strongly encouraged for future healthcare professionals who will have to learn to accommodate cultural differences of their patients (Altshuler, Sussman, & Kachur, 2003).

Summary

The topics discussed in this chapter informed the problem and purpose of the proposed study. Accelerating globalization, the transition to integration in the European Union, internationalization of education, as well as current intercultural tensions within Ukraine itself, all call for effective and adequate development and implementation of intercultural education in the education system of Ukraine, especially in higher education. Interculturally competent professionals are needed in all professional fields. However, intercultural education is a new and underdeveloped area in higher education institutions of Ukraine. Therefore, more research is needed to support its theory and implementation.

The Ukrainian national curriculum needs to explicitly incorporate intercultural topics in textbooks and instruction. In addition, education policies in terms of intercultural education should be more precise, clear, and explicit.

CHAPTER III

METHOD

This chapter describes the research methods used in the study. An ex post facto research design was used to establish a baseline measurement of intercultural competence of faculty in Ukraine. The chapter outlines the research questions, the statement of research hypotheses; provides a description and justification of the applied research design; elaborates on variables, research population, research site, and instrumentation; provides a detailed summary of the data collection procedures and data analysis procedures; and finishes with conclusion.

Research Questions and Hypotheses

Research Question 1

Is there a relationship between the Ukrainian faculty responses on the six scales of GPI and the following independent variables simultaneously - (a) four groupings of academic discipline, (b) intercultural experience (IE), and (c) the length of tenure?

Hypothesis 1. There is a significant relationship between the responses on the six scale scores of the GPI and the following independent variables simultaneously – the length of tenure, four groupings of academic discipline, and IE.

Hypothesis 1_a. There is a significant relationship between the scores on Cognitive – Knowing (Scale 1) and the following independent variables simultaneously – the length of tenure, four groupings of academic discipline, and IE.

Hypothesis 1_b. There is a significant relationship between the scores on Cognitive – Knowledge (Scale 2) and the following independent variables simultaneously – the length of tenure, four groupings of academic discipline, and IE.

Hypothesis 1_c. There is a significant relationship between the scores on Intrapersonal – Identity (Scale 3) and the following independent variables simultaneously – the length of tenure, four groupings of academic discipline, and IE.

Hypothesis 1_d. There is a significant relationship between the scores on Intrapersonal – Affect (Scale 4) and the following independent variables simultaneously – the length of tenure, four groupings of academic discipline, and IE.

Hypothesis 1_e. There is a significant relationship between the scores on Interpersonal – Social Responsibility (Scale 5) and the following independent variables simultaneously – the length of tenure, four groupings of academic discipline, and IE.

Hypothesis 1_f. There is a significant relationship between the scores on Interpersonal – Social Interaction (Scale 6) and the following independent variables simultaneously – the length of tenure, four groupings of academic discipline, and IE.

Research Question 2

Is there a relationship between the faculty responses on the six scales of the GPI and their (a) four groupings of academic discipline, (b) IE, and (c) length of tenure, independent of each other?

Research Question 2a. Is there a relationship between the faculty responses on the six scales of the GPI and their academic discipline, controlling for the length of tenure and IE?

Hypothesis 2_a. There is a significant relationship between the responses on the six scales of the GPI and four groupings of academic discipline, controlling for the length of tenure and IE.

Hypothesis 2_{a1}. There is a significant relationship between the responses on Cognitive-Knowing (Scale 1) and four groupings of academic discipline, controlling for IE and the length of tenure.

Hypothesis 2_{a2}. There is a significant relationship between the responses on Cognitive-Knowledge (Scale 2) and four groupings of academic discipline, controlling for IE and the length of tenure.

Hypothesis 2_{a3}. There is a significant relationship between the responses on Intrapersonal – Identity (Scale 3) and four groupings of academic discipline, controlling for IE and the length of tenure.

Hypothesis 2_{a4}. There is a significant relationship between the responses on Intrapersonal – Affect (Scale 4) and four groupings of academic discipline, controlling for IE and the length of tenure.

Hypothesis 2_{a5}. There is a significant relationship between the responses on Interpersonal – Social Responsibility (Scale 5) and four groupings of academic discipline, controlling for IE and the length of tenure.

Hypothesis 2_{a6}. There is a significant relationship between the responses on Interpersonal – Social interaction (Scale 6) and the length of tenure, controlling for four groupings of academic discipline and IE.

Research Question 2b. Is there a relationship between the faculty responses on the six scales of the GPI and the length of tenure, controlling for the four groupings of academic discipline and IE?

Hypothesis 2_b. There is a significant relationship between the responses on the six scales of GPI and the length of tenure, controlling for the four groupings of academic discipline and IE.

Hypothesis 2_{b1}. There is a significant relationship between the responses on Cognitive-Knowing (Scale 1) and the length of tenure, controlling for four groupings of academic discipline and IE.

Hypothesis 2_{b2}. There is a significant relationship between the responses on Cognitive-Knowledge (Scale 2) and the length of tenure, controlling for four groupings of academic discipline and IE.

Hypothesis 2_{b3}. There is a significant relationship between the responses on Intrapersonal – Identity (Scale 3) and the length of tenure, controlling for four groupings of academic discipline and IE.

Hypothesis 2_{b4}. There is a significant relationship between the responses on Intrapersonal – Affect (Scale 4) and the length of tenure, controlling for four groupings of academic discipline and IE.

Hypothesis 2_{b5}. There is a significant relationship between the responses on Interpersonal – Social Responsibility (Scale 5) and the length of tenure, controlling for four groupings of academic discipline and IE.

Hypothesis 2_{b6}. There is a significant relationship between the responses on Interpersonal – Social interaction (Scale 6) and the length of tenure, controlling for four groupings of academic discipline and IE.

Research Question 2c. Is there a relationship between the faculty responses on the six scales of the GPI and IE, controlling for the four groupings of academic discipline and the length of tenure?

Hypothesis 2_c. There is a significant relationship between the responses on the six scales of GPI and IE, controlling for the four groupings of academic discipline and the length of tenure.

Hypothesis 2_{c1}. There is a significant relationship between the responses on Cognitive-Knowing (Scale 1) and IE, controlling for four groupings of academic discipline and the length of tenure.

Hypothesis 2_{c2}. There is a significant relationship between the responses on Cognitive-Knowledge (Scale 2) and IE, controlling for four groupings of academic discipline and the length of tenure.

Hypothesis 2_{c3}. There is a significant relationship between the responses on Intrapersonal – Identity (Scale 3) and IE, controlling for four groupings of academic discipline and the length of tenure.

Hypothesis 2_{c4}. There is a significant relationship between the responses on Intrapersonal – Affect (Scale 4) and IE, controlling for four groupings of academic discipline and the length of tenure.

Hypothesis 2_{c5}. There is a significant relationship between the responses on Interpersonal – Social Responsibility (Scale 5) and IE, controlling for four groupings of academic discipline and the length of tenure.

Hypothesis 2_{c6}. There is a significant relationship between the responses on Interpersonal – Social interaction (Scale 6) and IE, controlling for four groupings of academic discipline and the length of tenure.

Research Design

The study was conducted using ex post facto research design. The choice of ex post facto research design is appropriate for this study due to the nature of the research design—“inability to randomly assign and manipulate the independent variable since ... it has already occurred and is not under the control of the researcher” (Newman & Newman, 1994, p. 114). In this research design, one cannot infer causation because the criterion cannot be experimentally controlled for and, therefore, internal validity cannot be achieved (Newman, Newman, Brown, & McNeely, 2006). Likewise, the independent variables in this study cannot be manipulated. In addition, the choice of the research design is determined by the research questions that try to infer relationships instead of causation.

To increase the likelihood of having higher internal validity of the research design, the study used the strongest type of ex post facto design – ex post facto with hypotheses and tests of alternative hypotheses. In comparison to the weaker types of the ex post facto research design—without hypotheses and with hypotheses, —the chosen type provides other explanations for the effect that are rival hypotheses to the ones the researcher is interested in confirming (Newman et al., 2006).

Variables

Criterion Variables

Intercultural competence was measured using the scale scores from 1 (strongly disagree) to 5 (strongly agree) on the Global Perspective Inventory (Merrill, Braskamp, & Braskamp, 2012). The instrument consists of six scales classified under three domains— (a) knowing and (b) knowledge (*cognitive domain*), (c) identity and (d) affect (*intrapersonal domain*), and (e) social responsibility and (f) social interaction (*interpersonal domain*).

Predictor Variables

Academic Discipline was self-reported by the faculty members and divided into four groupings –Pure Hard Sciences, Applied Hard Sciences, Pure Soft Sciences, and Applied Soft Sciences. The groupings are based on Biglan's (1973) classification of academic disciplines in higher education institutions. Accordingly, Pure Hard Sciences include physics, chemistry, mathematics, medicine, and biology; Applied Hard Sciences - engineering, agronomy, and computer science; Pure Soft Sciences - history, philosophy, foreign languages, communications, anthropology, political science, psychology, and sociology; and Applied Soft Sciences include business and education. The variables were be binary coded (0 or 1) to identify their appropriate grouping.

Intercultural Experience (IE) was operationally represented by the following variables: Travel Abroad, Study Abroad and Professional Development.

Travel Abroad (TA) – the total amount of time the participant spent outside of Ukraine, measured in time increments and coded 0 to 4: none (coded 0), 1-6 months (coded 1); 7-12 months (coded 2); 1-3 years (coded 3); and more than 4 years (coded 4).

Study Abroad (SA) – the total amount of time the participant studied in an education institution outside of Ukraine, measured in time increments and coded into 0 to 4: none (coded 0), 1-6 months (coded 1); 7-12 months (coded 2); 1-3 years (coded 3); and more than 4 years (coded 4).

Intercultural Professional Development (PD) – the total amount of time dedicated to intercultural-focused professional development activities, such as seminars/ workshops/ presentations/ lectures attended or conducted, measured in time increments and coded into 0 to 4: none (coded 0), 0-6 hours (coded 1); 7-20 hours (coded 2); 21-40 hours (coded 3); and more than 41 hours (coded 4).

Length of Tenure (Ten) was measured by the total number of academic years the participants taught in a higher education institution.

Population and Research Site

The population for the study consists of all faculty members in all academic disciplines of one university located in western Ukraine. The University has the fourth (highest) level of accreditation by the Ministry of Education and Science of Ukraine. The University consists of 16 colleges.

Instrumentation

The Global Perspective Inventory (GPI)

Intercultural competence was operationally defined and measured by the scale scores on *Global Perspective Inventory* (GPI; Merrill, Braskamp, & Braskamp, 2012). GPI consists of 40 questions measured on Likert scale from 1 (strongly disagree) to 5 (strongly agree). The instrument was taken by over 75,000 students and faculty in more

than 100 American and international higher education institutions. The rationale of using this instrument to measure intercultural competence follows.

The construction of GPI was heavily drawn from intercultural competence theories. Firstly, the underlying theoretical framework of GPI is based on “*acquisition* of knowledge, attitudes, and skills important to *intercultural communication* [emphasis added] and holistic *development* of more complex epistemological processes, identities, and interpersonal relations” (Merrill, Braskamp, & Braskamp, 2012, p. 356). Second, the developers of the instrument drew from King and Baxter Magolda’s (2005) intercultural maturity model that includes “complex understanding of cultural differences (cognitive dimension), and capacity to function interdependently with diverse others (interpersonal dimension)” (p. 574). Third, GPI draws on Chen and Starosta’s (1998) theoretical framework of intercultural sensitivity—the affective aspect of intercultural competence—that refers to the participants’ “active desire to motivate themselves to understand, appreciate, and accept differences among cultures” (p. 231). Fourth, the instrument is based on Chavez, Guido-DiBrito, and Mallory’s (2003) theoretical framework of individual diversity development defined as “cognitive, affective, and behavioral growth processes toward consciously valuing complex and integrated differences in others and ourselves” (p. 453). GPI also takes into account the concepts of self-authorship (Kegan, 1994) and faith development (Parks, 2000) that point to the holistic perspective of human development.

Construction of the GPI scales. The instrument takes into account cognitive, intrapersonal, and interpersonal domains, each of which contains two scales reflective of the theory of cultural development and intercultural communication mentioned above. The

description of the GPI scales and items is provided in Appendix A. According to Braskamp, Braskamp, Merrill, and Engberg (2012), the **Cognitive domain** consists of the following scales: (a) *Knowing* - degree of complexity of one's view of the importance of cultural context in judging what is important to know and value; and (b) *Knowledge* - degree of understanding and awareness of various cultures and their impact on our global society and level of proficiency in more than one language. The scales of the **Intrapersonal domain** are (a) *Identity* - level of awareness of one's unique identity and degree of acceptance of one's ethnic, racial, and gender dimensions of one's identity; and (b) *Affect* - level of respect for and acceptance of cultural perspectives different from one's own and degree of emotional confidence when living in complex situations, which reflects an "emotional intelligence" that is important in one's processing encounters with other cultures. The scales of **Interpersonal domain** are (a) *Social Responsibility* - level of interdependence and social concern for others; and (b) *Social Interactions* - degree of engagement with others who are different from oneself and degree of cultural sensitivity when living in pluralistic settings.

Validity and reliability. Validity and reliability estimates of the GPI are based on a selective sample of 42,138 undergraduate students (2,802 of whom were international students) out of approximately 80,000 from 114 higher education institutions (Braskamp et al., 2012).

Reliability estimates of GPI. *Test-retest reliability* of the GPI scales is based on the results of two posttests taken one semester after study abroad program (correlations ranging from .58 to .73) and after another 3-week study abroad program (correlations ranging from .49 to .81; Braskamp et al., 2012). These findings mean that the estimates of

test-retest reliability of the GPI for that population produced a range of coefficient values from very poor or unacceptable to acceptable. *Internal consistency* of the scales was calculated based on a sample of 5,350 undergraduate students from 46 different institutions. Ranging from .627 to .748 in terms of alpha coefficient, the results show acceptable internal consistency of the scales.

The instrument has some limitations in terms of *scale discrimination*. As pointed out in Braskamp et al. (2012) and demonstrated in Table 3, correlations between the scales of GPI range from .097 to .587. It means that the instrument does not have a satisfactory level of scale discrimination for correlations between scales that are higher than .40.

Table 3

Correlations among the six GPI scales

	Cognitive Knowledge	Intrapersonal Identity	Intrapersonal Affect	Intrapersonal Social Responsibility	Intrapersonal Social Interaction
Cognitive Knowing	.178	.097	.488	.224	.331
Cognitive Knowledge		.428	.404	.287	.472
Interpersonal Identity			.455	.427	.337
Intrapersonal Affect				.44	.587
Interpersonal Social Responsibility					.419

Note. All correlations are significant at the 0.01 level. Adapted from Braskamp, L. et al. (2012). p.11.

Validity estimates of GPI. Braskamp et al. (2012) indicated that the instrument was piloted and then revised three times based on the feedback from students and study abroad experts on clarity and credibility of the items, contributing to its *face validity*. As

cited in Braskamp et al. (2012), Anderson and Lawton's (2012) study on *concurrent validity* reported that the GPI did not measure similar characteristics that were measured by another survey, the Intercultural Development Inventory (IDI). This result was in the intention of the instrument developers; it supported the *construct validity* of the GPI by indicating that it measures a different construct from IDI.

Additional survey questions. In addition to the questions in the GPI, the respondents in the present study provided answers to determine their academic discipline, the length of tenure, the length of travel abroad time, the length of study abroad time, the length of time spent on intercultural-focused professional development, and their college type.

Use of the GPI as a Measure of Intercultural Competence: Pilot Study I

Before conducting the pilot study, the researcher consulted with Dr. Larry Braskamp, one of the developers of the GPI, and Dr. Darla Deardorff, the researcher whose intercultural competence theory and components were used in the theoretical framework of this study, on whether the GPI could be used to measure intercultural competence of faculty. In personal communication, they both stated that the instrument could be used for this purpose but provided some of its limitations in measuring intercultural competence (L. Braskamp, October 31, 2012; D. Deardorff, August 13, 2013). First, L. Braskamp warned that the GPI measured a construct "wider than intercultural competence" – it measured "intercultural knowledge, interpersonal aspects, and was based on global constructivist approach". Second, D. Deardorff (2013) stated that the GPI was not sufficient to measure all of the 22 intercultural competence components from Deardorff (2006). She warned that the GPI as a self-reporting instrument was not

designed to not measure actual communicative aspect of intercultural competence, cultural self-identification and other aspects of intercultural competence that a mixed-method research design could reveal.

To find out if the six scales of the GPI measure the concept of intercultural competence sufficiently, the researcher used a Table of Specifications' (ToS) template developed by Newman, Lim, and Pineda (2013). The columns in the ToS represented the six scales of the GPI and rows listed the components of intercultural competence outlined in Deardorff (2006). Four expert raters were asked to indicate if the components of intercultural competence were an estimate of specific GPI scales and then rate how sufficiently the checked items estimated the column concepts (the GPI scales) on scale 0-100%. The experts were also asked to provide an open-ended feedback for the scales that were rated less than 100% sufficient to find out what additional evidence should be added to make them more sufficient. In other words, this procedure was used to determine the estimates of content validity of the GPI based on the ToS and the percentage of experts' agreement. All the raters were the faculty members who have completed the coursework in the area of intercultural education, conducted research and taught classes with an intercultural education component.

Results and details

Scale 1 (Cognitive – Knowing). Collectively, the judges indicated that Scale 1 could be used to measure 17 out of 22 components of intercultural competence (IC). Three judges indicated that the IC components they identified estimated the scale 100%. The fourth judge estimated the scale at 27% expressing the concern over the wording of “what is important” in the context of different cultures provided in the scale description. This

judge indicated that different cultures may evaluate “what is important” in different ways and added that socioeconomic status may also shape the perception of “what is important”. When interpreting this judge’s response and taking in consideration the scale description provided by its developers, the researcher concluded that Scale 1 addressed this judge’s concern by measuring the level “what is important”. Therefore, no adjustments to Scale 1 to estimate IC are necessary.

Scale 2 (Cognitive – Knowledge). Collectively, the judges indicated that Scale 2 could be used to measure 18 out of 22 components of IC. Two judges felt the scale items were overall weak in estimating the IC components (50% and 55% sufficient). The other two judges indicated that the IC components estimated Scale 2 100% sufficient.

Scale 3 (Intrapersonal – Identity). Collectively, three judges indicated that Scale 3 could be used to measure 18 out of 22 components of IC. The fourth judge felt that none of the IC components addressed the scale. Based on the responses estimating the sufficiency of IC components estimating Scale 3 (100%, 100%, 41%, and 0%), it could be concluded that the scale is somewhat weak in measuring IC.

Scale 4 (Intrapersonal –Affect). Collectively, the judges indicated that Scale 4 could be used to measure 20 out of 22 components of IC. The IC components that the judges identified as the estimates of this scale reflect it fairly sufficiently, with three judges estimating it at 100% and one judge estimating it at 50%.

Scale 5 (Interpersonal – Social Interaction). Collectively, the judges indicated that Scale 5 could be used to measure 16 out of 22 components of IC. One judge felt the scale was overall weak in reflecting social concern for others and estimated its sufficiency

at 36%. Two other judges considered the IC components reflected the scale 100% and the fourth judge estimated it at 80%.

Scale 6 (Interpersonal – Social Responsibility). Collectively, the judges indicated that Scale 6 could be used to measure 16 out of 22 components of IC, with one of the judges considering that only one IC component addresses the scale. Two judges felt that Scale 6 was overall weak in measuring the IC components they selected (50% and 10% sufficient), while the other two judges felt it was quite strong (100% sufficient).

By validating the GPI with ToS, it appeared that two judges consistently estimated the scales as strongly reflecting the concept of intercultural competence, while the other two judges estimated the scales as a weaker measure of this construct in most of their responses. These judges thought there were not enough scale items to measure the construct. Scales 3 and 6 had the most concern by the content area experts. This needs to be considered as a limitation of the GPI as a measure of intercultural competence. Thus far, the researcher has not found any other quantitative research instrument that measures the concept of intercultural competence sufficiently. Therefore, the researcher chose to use the GPI as the best available instrument to measure this construct.

Empirical and construct validity of the GPI was estimated using confirmatory factor analysis. This allowed determining how well the scales of the GPI aligned with the components of intercultural competence for the population of the Ukrainian faculty.

Chapter 3 provides a detailed description of this analysis and its results.

A Cross-Cultural Adaptation of the Global Perspective Inventory: Pilot Study II

The Global Perspective Inventory has not been previously used to measure intercultural competence in Ukraine. The instrument has been developed in the United

States and needed some cross-cultural adjustments to be used with the population of Ukrainian faculty. The necessity of cross-cultural survey adaptation arose from the need to reach linguistic and conceptual equivalence between the original survey and its target version (Beaton et al, 2000).

This pilot study was conducted to estimate if the constructs represented in the original and the translated versions of the GPI items are equivalent and appropriate to use for the population of the Ukrainian educators. The pilot overviewed the following procedures – translation and back-translation of the instrument, review of the instrument's original and back-translated versions, conducting cognitive interviews, and making revisions and incorporating the feedback into the final Ukrainian version of the instrument.

The following research questions guided the pilot: (a) How did Ukrainian educators interpret the concepts presented in the GPI? and (b) What changes needed to be made to adapt the instrument to the population of Ukrainian educators?

Method. The process of cross-cultural adaptation of the GPI was mainly drawn from the procedures and recommendations discussed in Weech-Maldonado, Weidmer-Ocampo, Morales, and Hays (2001) and Beaton, Bombardier, Guillemin, and Ferraz (2000). According to these authors, the research instruments need to undergo the following adaptation stages: (a) translation that includes two or more initial (forward) translations (from English to the target language); (b) synthesis of the translations performed by the forward translators and one observer; (c) two back-translations (from the target language back to English); (d) expert committee review with a purpose of consolidating all the versions of the survey, checking for errors and equivalence, and

developing its prefinal version; (e) conducting a pretest of the survey and interviewing the participants to find out what they thought about the questions and their provided responses; and (f) submission of the documentation to the expert committee for the appraisal and final adaptation.

The GPI translation.

Forward translation. The researcher translated the survey instrument from English into Ukrainian. The English version of the survey is provided in Appendix C. The researcher is a bilingual English-Ukrainian speaker who received a formal academic training in English-Ukrainian translation. The use of one forward translation instead of the recommended two or more translations was based on Weidmer-Ocampo et al.'s (2000) recommendation that the use of the expert committee review (introduced below) serves a purpose of “neutralizing the cultural, social, and ethnic bias that can be introduced when using only one translator and one back-translator” (p. 31).

Back-translation. The GPI was back-translated by two English-Ukrainian bilingual professionals – one being in the field of education and administration and the other being a professional in the field not related to education. The choice of the back-translators was based on Beaton et al.'s recommendations to choose the back-translators related and not related to the research content area. The translators did not have an access to the English version of the instrument, as suggested by Weidmer-Ocampo et al. (2000).

Committee review. The committee consisted of the forward translator, two back-translators, and another professional with a linguistic background who is fluent in English and has a good understanding of Ukrainian. Both the original and the back-translated versions of the instrument were compared to discover the discrepancies in the equivalence

of the translation. Based on the committee consensus, the pre-final version of the questionnaire was created.

Field test and cognitive interviews. The revised version of the GPI was administered to four faculty members and one teacher in Ukraine. A cognitive interview was conducted to explore how these Ukrainian educators interpreted the concepts presented in the survey. The participants were asked to provide their interpretation of the survey items and comment on their linguistic and conceptual equivalence for the population of Ukrainian faculty, for example:

- Why did you choose to respond ... in Item ...?
- What does culture/ cultural mean to you when used in Item...?
- Can you paraphrase Item...?

As suggested by Weidmer-Ocampo et al. (2000), a structured interview protocol was developed to provide uniform questions for all participants. The researcher targeted the selected GPI items that contained a direct reference to the concept of culture or were hypothesized as having a different meaning or applicability in Ukraine. As a result, a final modified version of the GPI was created in the Ukrainian language. It is provided in Appendix D.

Data Collection Procedures

The data collection procedures were directed by the requirements set forth by the Institutional Review Board. The survey instrument was translated into Ukrainian by the researcher who is a native Ukrainian language speaker and received training in English-Ukrainian translation. The instrument was back-translated from Ukrainian into English by

a bilingual Ukrainian/ English speaker. The copies of the adult consent to participate in the study in English and Ukrainian languages are provided in Appendices E and F.

Email notifications about the upcoming data collection were sent out to the department chairs in advance. The researcher personally solicited the faculty's participation in the survey in the end of the biannual all-University meeting. The survey was administered at the end of the biannual meeting. The faculty members were asked to sign a consent form to participate in the research prior to the administration of the survey. Those who chose not to participate in the study were free to leave. A thank-you letter to the participants and their supervisors was sent out after the completion of data collection. The completed surveys have been kept in a locked file at the researcher's office.

Data Analysis Procedures

The research hypotheses were tested using the General Linear Model (GLM) – a sophisticated statistical approach that is best fit to test multiple research hypotheses because it uses all parametric and most nonparametric procedures to test research hypotheses (McNeil, Newman, & Fraas, 2012). PASW 21 for Macintosh was used to perform the data analysis in the GLM.

The Level of Significance and Type I Error Adjustment

The level of significance or *alpha* (α) is the probability of committing Type I error—the probability of accepting the false null hypothesis (Hinkle, Wiersma, & Jurs, 2003). Alpha level can be determined a priori. In this study, it is set at 0.05, meaning that there is a 5% chance of accepting a false null hypothesis. It is customary used default alpha level due to strong concerns to commit Type I error over Type II error. Following Newman, Newman, Brown, and McNeely (2006), the researcher controlled for an alpha

error buildup for multiple comparisons between groups (the larger the number of comparisons tests, the bigger chance to commit Type I error) by using Bonferroni correction. To adjust for an inflated level of alpha, the researcher used a three-step procedure proposed in Newman, Fraas, and Laoux (2000):

First, the researchers need to identify the rate error units contained in the study. Second, the researchers must determine the number and nature of statistical tests contained in each error rate unit. Third, the researchers must implement a procedure that will adjust the alpha levels of the statistical tests contained in the error rate unit. (p. 86)

It is instructive to note that the number of error units should be based on the number of separate analyses identified in accordance with the researcher's conceptualization of the study (Newman, Fraas, & Laoux, 2000). Therefore, each grouping of the hypotheses was adjusted for the appropriate number of error units. Then the desirable significance level of alpha for the unit (set at 0.05) was divided by the number of *exploratory* statistical tests to produce a new *adjusted* alpha level. Consequently, the probability level (p) of the significance tests needed to be equal or less than the adjusted alpha level to confirm that the tested relationship did not occur by chance alone (Newman, Newman, Brown, & McNeely, 2006).

The Directionality of Hypotheses

The study tested nondirectional hypotheses using a two-tailed test of significance. In this test, the region of rejection was distributed between two tails (Hinkle, Wiersma, & Jurs, 2003) and probability level adjustments were not necessary (McNeil, Newman, & Kelly, 1996).

Power Analysis

The *power* of a statistical test is the probability of committing Type II error—the probability of rejecting the false null hypothesis ($1 - \beta$; Hinkle, Wiersma, & Jurs, 2003). It also can be referred to as “the probability of detecting a population fact when that population fact truly exists” (McNeil, Newman, & Fraas, 2012, p. 305). It is important that the research design ensures a strong level of statistical power to find statistical significance (desirably of having a power of 0.80). To enhance the power level, one must take into account the sample size, the effect size, the level of significance (α), and the directionality of the alternative hypothesis (Hinkle, Wiersma, & Jurs, 2003). There are a number of factors that can decrease the power level: “a small sample size; a stringent alpha level; the need to detect a small effect size; [and] a large error term used in the analysis of the sample data” (McNeil, Newman, & Fraas, 2012, p. 306).

Sample size. Following Tabachnik and Fidell (2007), the issue of power should be determined a priori when selecting the sample size for the study; an appropriate *sample size* is determined by the following estimates: the size of the anticipated mean difference, the variability of the expected effect, the appropriate alpha level (.05 in this study), and the desired power level of 0.80. The larger the sample size is, the more precise the parameter estimates are, the less the standard error of the mean is, and the more it contributes to the power of the statistical test (Hinkle, Wiersma, & Jurs, 2003). Therefore, the desirable sample size for the current study to produce a power of .80 was 286.

Effect size. Effect size is “the proportion of variance in the DV [dependent variable] that is associated with levels of an IV [independent variable]” (Tabachnik & Fidell, 2003, p. 54). It can also be measured as a standardized difference between the

means of two groups (Hinkle, Wiersma, & Jurs, 2003; McNeil, Newman, & Kelly, 1996). In the current study, the medium effect size (f^2) calculated in the correlational analysis in the GLM was equal to .15 as suggested by McNeil, Newman, and Kelly (1996) and Cohen (1992).

The Full and Restricted Models in Hypotheses Testing

Appropriate full models were developed to assess how well the collected data supported research hypotheses. The restricted models were developed to test appropriate statistical hypotheses, indicating that the conditions stated in the research hypotheses are not true (McNeil, Newman, & Fraas, 2012). All independent variables in the full model were tested against the restricted model to find out if the relationship between the criterion and the independent variables accounted for a significant amount of variance that was greater than might be expected by chance alone. The full model was tested against the restricted model with F -test of significance using the following formula:

$$F_{(df_n, df_d)} = \frac{(R_F^2 - R_R^2) / df_n}{(1 - R_F^2) / df_d},$$

where R_F^2 is associated with the proportion of observed criterion variance in the full model; R_R^2 – with the proportion of observed criterion variance in the restricted model; df_n is the difference between the number of linearly independent vectors in the full model and the number of linearly independent vectors in the restricted model; and df_d is the number of observations (N) minus the number of linearly independent vectors in the full model (McNeil, Newman, & Fraas, 2012).

For the purpose of this research, two types of full models were created, in which:

Y indicates an appropriate criterion variable (GPI scales); a_0U - a unit vector;

PHS – Pure Hard Sciences; AHS – Applied Hard Sciences, PSS – Pure Soft Sciences, and

ASS –Applied Soft Sciences; Ten – the Length of Tenure; TA – Travel Abroad; SA – Study Abroad; IPD – Professional Development; a_1, a_2, a_n – beta-weights calculated to increase the precision of the models; and E_n – indicating an error unit. The tested variables are omitted in the restricted models.

Research Hypothesis 1. The model below was used to test Research Hypothesis 1. All IVs in the full model was tested simultaneously against the restricted model that states that there is no relationship between all IVs and each of the GPI scales.

Full Model 1:

$$Y_n \text{ (Scale n of GPI)} = a_0U + a_1\text{PHS} + a_2\text{AHS} + a_3\text{PSS} + a_4\text{ASS} + a_5\text{Ten} + a_6\text{TA} + a_7\text{SA} + a_8\text{PD} + E_n$$

$$\text{Restricted Model 1: } Y_n = a_0U + E_n$$

Research Hypothesis 2. Full Model 2 was used to test Research Hypothesis 2 to find out if each of the IVs—the length of tenure, academic discipline, and IE (consisting of travel abroad, study abroad and professional development)—predict a significant amount of variance in each of the six GPI scales when controlling for the other two IVs. The Restricted Model (Alternative Research Hypothesis) states that the tested IVs produce no difference on respective GPI scales when controlling for the other IVs.

Full Model 2:

$$Y_n \text{ (Scale n of GPI): } a_0U + a_1\text{PHS} + a_2\text{AHS} + a_3\text{PSS} + a_4\text{ASS} + a_5\text{Ten} + a_6\text{TA} + a_7\text{SA} + a_8\text{PD} + E_n$$

$$\text{Restricted Model 2a: } Y_n = a_0U + a_5\text{Ten} + a_6\text{TA} + a_7\text{SA} + a_8\text{PD} + E_n$$

$$\text{Restricted Model 2b: } Y_n = a_0U + a_1\text{PHS} + a_2\text{AHS} + a_3\text{PSS} + a_4\text{ASS} + a_6\text{TA} + a_7\text{SA} + a_8\text{PD} + E_n$$

$$\text{Restricted Model 2c: } Y_n = a_0U + a_1\text{PHS} + a_2\text{AHS} + a_3\text{PSS} + a_4\text{ASS} + a_5\text{Ten} \\ + E_n$$

Limitations

1. The results of the study cannot be generalized to the population of faculty members in all Ukrainian higher education institutions because the study did not use a random sample.
2. The instrument – the GPI – has high levels of correlation between its scales.
3. The GPI has not been administered in Ukraine before.

Assumptions

It is assumed that (a) the participants provided honest and accurate responses; (b) the groups of faculty formed by their academic discipline are sufficiently homogeneous to make between-groups comparisons; and (c) the translation of the GPI into Ukrainian and its back-translation reflect the survey questions appropriately.

Summary

This chapter provided a detailed description of the research method used to solve the research problem and answer the research questions. The Global Perspective Inventory (GPI) was used as an instrument of choice to measure intercultural competence of faculty members in one Ukrainian university. Pilot study I was conducted to determine whether the GPI scales were sufficient to measure the 22 components of intercultural competence developed by Deardorff (2006) and how well the intercultural competence concepts were reflected in the GPI scales. A ToS template developed by Newman, Lim, and Pineda (2013) was used for the purpose of this pilot. A blank ToS template is provided in Appendix B. Pilot study II used a cross-cultural adaption technique drawn mainly from

Weech-Maldonado et al. (2000) and Beaton et al. (2000) to translate the survey into Ukrainian and reach linguistic and conceptual equivalence between the concepts in its original English version and translated Ukrainian version.

The researcher employed an ex-post facto research design and used the General Linear Model to test the research hypotheses. Data analysis procedures specified a desired level of significance of .05, specified necessary Type I error adjustments, determined that the hypotheses were nondirectional, set a desired statistical power level at .80, and provided the full and restricted models to test the hypotheses.

CHAPTER IV

RESULTS

The purpose of this study was to establish baseline psychometric estimates of intercultural competence of Ukrainian higher education faculty by employing a modified version of the Global Perspective Inventory survey. The study was conducted to demonstrate the relationships between the predictor variable of intercultural competence consisting of the six scales of the GPI —Cognitive-Knowing, Cognitive-Knowledge, Intrapersonal -Identity, Intrapersonal-Affect, Interpersonal-Social Responsibility, Interpersonal-Social Interaction—and the criterion variables of academic discipline, intercultural experience, and the length of tenure for the selected population of Ukrainian faculty.

Description of Participants

The study was conducted in one large public university in western Ukraine with 933 faculty members. The survey consisting of 46 items was distributed to all faculty members who were present at the meeting. The researcher collected 276 filled out surveys.

The demographic information of the sample is presented in Table 4. The majority of the participants were women (64%); men constituted 30%; and 6 % of the responses were missing the gender information. The distribution of the faculty by their academic discipline grouping was not even – the majority of the participants (46%) specialized in Pure Soft Sciences, followed by those in Applied Soft Sciences (20%), Pure Hard Sciences (19%), Applied Hard Sciences (4 %); and 12% of the responses did not specify their academic discipline. In terms of Intercultural Professional Development (IPD) of the faculty, the majority of the sample reported that they did not receive any IPD (42 %) or

had up to 6 hours of IPD (24 %). Only 28 participants (10 %) received more than 41 hours of IPD and 19 of the responses were missing. A two-way contingency table analysis showed that 81 % of the faculty in Pure Hard Sciences received either none or up to 6 hours of IPD; the percentage is higher for the faculty in Applied Hard Sciences (92 %); the faculty in Pure Soft Sciences received most IPD – 15% of them had 41 hours or more of IPD with the smallest percentage (62%) of those who received either none or up to 6 hours of IPD; and 73% of the faculty in Applied Soft Sciences received either none or up to 6 hours of IPD. The sample was weighted by the Academic Discipline type. Academic Discipline type and IPD were found to be significantly related, Pearson $\chi^2(12, N = 631) = 36.51, p = .0001$, with a medium effect size ($\Phi = .24$).

The length of tenure of the faculty members ranged from a few days to 55 years, with the majority of the participants (33%) with 5-9 years of tenure followed by 10-14 years of tenure (25 %) and 0-4 years of tenure (14 %). A two-way contingency table analysis determined that the length of tenure and IPD were significantly related, Pearson $\chi^2(20, N = 639) = 118.85, p = .0001$, with a medium effect size ($\Phi = .43$).

The majority of the sampled faculty has never studied or trained abroad (73%) or underwent study or training abroad up to 1 month (10%). 19% of the faculty members did not travel abroad; 35% of the faculty spent abroad up to 1 month; and 25% of them traveled between 1 to 6 months abroad.

Table 4

Descriptive Statistics of the Faculty Sample

Sex	<i>N</i>	%
Men	83	30.1
Women	176	63.8
Missing	17	6.2
Academic Discipline	<i>N</i>	%
Pure Hard Sciences	48	17.4
Applied Hard Sciences	12	4.3
Pure Soft Sciences	128	46.4
Applied Soft Sciences	55	19.9
Missing	33	12
IPD (M = 2.1, SD = 1.32)	<i>N</i>	%
Never	116	42
Up to 6 hours	67	24.3
7-20 hours	35	12.7
21-40 hours	11	4
41 hours and more	28	10.1
Missing	19	6.9
Study or Training Abroad (M = 1.47, SD = 1.07)	<i>N</i>	%
Never	200	72.5
Up to 1 month	28	10.1
1-6 months	14	5.1
7-12 months	6	2.2
1-3 years	7	2.5
4 years and more	4	1.4
Missing	17	6.2
Travel Outside of Ukraine (M = 2.6, SD = 1.31)	<i>N</i>	%
Never	52	18.8
Up to 1 month	97	35.1
1-6 months	68	24.6
7-12 months	23	8.3
1-3 years	17	6.2
4 years and more	12	4.3
Missing	7	2.5
Length of Tenure (M = 2.77, SD = 1.39)	<i>N</i>	%
0-4 years	38	13.8
5-9 years	91	33
10-14 years	68	24.6
15-19 years	21	7.6
20-24 years	14	5.1
25-55 years	20	7.2
Missing	24	8.7

The mean GPI scores and standard deviations based on the results of this study and the mean GPI norms drawn from the results of the surveys taken by over 36,000 undergraduate students in the United States between 2010 and 2013 were compared in Table 5. The GPI survey scores were measured on Likert scale from 1 (strongly disagree) to 5 (strongly agree). The Ukrainian faculty mean scores on Scales 1, 2, 4, 5, and 6 ranged from 3.12 to 3.55 meaning that the answers on intercultural competence scales ranged between neutral and slightly positive. The highest intercultural competence score of 4.10 was achieved on Scale 3 (Intrapersonal-Identity), indicating that the faculty members responded positively to the intracultural-focused statements. (A list of the GPI scale statements is provided in Appendix A.) In comparison to the American national GPI norms, the Ukrainian faculty members scored lower on all GPI scales with an exception of Scale 3 Intrapersonal-Identity, the results on which were similar.

Table 5

Comparison of mean GPI scores between Ukrainian faculty members and American mean norms

The GPI Scales	Study Mean	Standard Deviation	Norm Mean
1 Cognitive-Knowing	3.30	.48	3.63
2 Cognitive-Knowledge	3.55	.53	3.60
3 Intrapersonal-Identity	4.10	.43	4.09
4 Intrapersonal-Affect	3.44	.37	4.14
5 Interpersonal-Social Responsibility	3.49	.49	3.72
6 Interpersonal-Social Interaction	3.12	.47	3.34

As shown in Table 6 the faculty responses on the GPI survey were grouped by their selected demographic characteristics – their length of travel outside of Ukraine, the

length of study or training abroad, the length of intercultural professional development, the length of tenure, and the four groupings of academic discipline. The results of statistical analyses based on these variables beyond the descriptive statistics are provided in the next section of this chapter.

The respondents with no travel abroad experience received the lowest intercultural competence mean score of 3.40 in comparison to the respondents who had some travel experience, whose scores ranged from 3.44 to 3.65. The faculty whose length of travel abroad ranged between one and twelve months received the highest scores on intercultural competence in the sample. The respondents' scores on intercultural competence by their length of study or training abroad as well as by their length of tenure produced inconsistent results, meaning that the length of study or training abroad as well as the length of tenure did not contribute to the respondents scores on intercultural competence. Yet the descriptive results based on the length of intercultural professional development showed that the more intercultural professional development the faculty members received, the higher they scored on intercultural competence. Finally, the faculty majoring in Pure Soft Sciences received the highest mean score of 3.53 on intercultural competence, followed the faculty majoring in Applied Soft Sciences with a mean score of 3.49 and Pure Hard Sciences with a mean score of 3.47. The lowest mean score of 3.28 on intercultural competence belonged to the professors majoring in Applied Hard Sciences.

Table 6

Average intercultural competence scores by the GPI scale and selected demographic characteristics

Travel Outside of Ukraine	Scale1	Scale2	Scale3	Scale4	Scale5	Scale6	Total
never	3.28	3.35	3.94	3.45	3.37	3	3.40
up to 1 month	3.21	3.52	4.11	3.42	3.55	3.07	3.48
1-6 months	3.43	3.62	4.13	3.48	3.54	3.24	3.57
7-12 months	3.36	3.89	4.19	3.58	3.52	3.36	3.65
1-3 years	3.32	3.54	4.15	3.3	3.41	2.91	3.44
4 years and more	3.3	3.63	4.04	3.3	3.43	3.21	3.49
Study/ training abroad	Scale1	Scale2	Scale3	Scale4	Scale5	Scale6	Total
never	3.27	3.5	4.07	3.43	3.48	3.08	3.47
up to 1 month	3.47	3.69	4.12	3.43	3.6	3.15	3.58
1-6 months	3.47	3.67	4.23	3.62	3.58	3.42	3.67
7-12 months	2.96	3.59	4.18	3.29	3.17	3.23	3.40
1-3 years	3.71	3.68	4	3.44	3.3	2.92	3.51
4 years and more	3.71	3.6	4.33	3.17	3.27	3.24	3.55
Intercultural professional development	Scale1	Scale2	Scale3	Scale4	Scale5	Scale6	Total
never	3.28	3.32	3.99	3.39	3.42	2.99	3.40
0-6 hours	3.23	3.56	4.09	3.45	3.47	3.09	3.48
7-20 hours	3.38	3.75	4.15	3.47	3.62	3.35	3.62
21-40 hours	3.36	3.83	4.17	3.47	3.64	3.26	3.62
41 hours and more	3.51	3.96	4.38	3.5	3.61	3.28	3.71
Length of tenure	Scale1	Scale2	Scale3	Scale4	Scale5	Scale6	Total
0-4 years	3.35	3.52	4	3.5	3.52	3.25	3.52
4-9 years	3.27	3.52	4.1	3.44	3.5	3.14	3.50
10-14 years	3.34	3.49	4.08	3.41	3.47	3.04	3.47
15-19 years	3.33	3.58	4.05	3.38	3.41	2.9	3.44
20-24 years	3.42	3.87	4.13	3.45	3.32	3.11	3.55
25-55 years	3.06	3.47	4.19	3.41	3.55	3.17	3.48
Academic discipline	Scale1	Scale2	Scale3	Scale4	Scale5	Scale6	Total
PHS	3.27	3.39	4.05	3.55	3.47	3.08	3.47
AHS	3.33	3.03	3.78	3.35	3.32	2.84	3.28
PSS	3.34	3.64	4.1	3.43	3.5	3.19	3.53
ASS	3.28	3.53	4.11	3.42	3.49	3.1	3.49

Note. The description of the variables is provided on p.10.

Data Analysis

This section reports the results of the tested research hypotheses. Multiple regression analyses were used to test Full Model 1 against Restricted Model 1 associated with Research Hypothesis 1 and Research Question 1 to determine the relationship between the concept of intercultural competence represented by six GPI scales and the IVs of academic discipline, length of tenure, and intercultural experience simultaneously. Full Model 2 was tested against Restricted Model 2 to determine relationship between the concept of intercultural competence represented by six GPI scales and the IVs of academic discipline, length of tenure, and intercultural experience independent of each other. Research Hypotheses 2_a, 2_b, and 2_c associated with Research Questions 2a, 2b, and 2c were tested by Model 2.

Hypothesis 1

Hypothesis 1 stated that there is a significant relationship between the faculty responses on the six scale scores of the GPI and all the following independent variables simultaneously – the length of tenure, four groupings of academic discipline, and IE. A set of multiple regression analyses was conducted to predict the scores on the GPI scales from all the independent variables simultaneously. Multiple tests of unique variance accounted for by each of the independent variables in predicting the GPI scales were also conducted.

Full Model 1 was used to test Research Hypothesis 1.

$$\text{Full Model 1: } Y_n \text{ (Scale } n \text{ of GPI)} = a_0U + a_1\text{PHS} + a_2\text{AHS} + a_3\text{PSS} + a_4\text{ASS} + a_5\text{Ten} + a_6\text{TA} + a_7\text{SA} + a_8\text{PD} + E_n$$

Restricted Model 1 stated that all the tested IVs simultaneously produced no difference on the respective GPI scales.

$$\text{Restricted Model 1: } Y_n = \alpha_0 U + E_n$$

Hypothesis 1a. The results of the multiple linear regression analysis for Scale 1 (Cognitive – Knowing) are presented in Table 7. The analysis provided evidence to reject Research Hypothesis 1_a at .05 level of significance and state that for the given population, there is no significant relationship between Scale 1 and the length of tenure, four groupings of academic discipline, and IE simultaneously, $R^2 = .07$, $F(8, 196) = 1.78$, $p < .08$. The results of the multiple tests of unique variance accounted for are displayed in Table 8. They determined that none of the independent variables accounted for unique variance in predicting Scale 1 independent of all other IVs while controlling for Type I error build-up.

Table 7

Hypothesis 1a: Summary of Results of Regression Analysis, Scale 1 (Cognitive-Knowing)

Model	R^2	df	F	p	Significance
Full	.068	8	1.775	.084	NS

Table 8

Hypothesis 1a: Predictor Variables for Scale 1 (Cognitive-Knowing)

Variables	Full Model		
	b	t	p
(Constant)	3.560	7.173	.000
PHS	-.484	-1.010	.314
AHS	-.386	-.835	.405
PSS	-.378	-.776	.439
ASS	-.458	-.933	.352
Ten	-.005	-1.169	.244
TA	.025	.850	.396
SA	.028	.705	.481
IPD	.056	2.237	.026

Note: p needed to be significant at .05 level when controlling for Type I error build-up is .006.

Hypothesis 1b. The results of the multiple linear regression analysis for Scale 2 (Cognitive – Knowledge) are presented in Table 9. The analysis provided evidence to

accept Research Hypothesis 1b at .05 level of significance and state that for the given population, there is a significant positive relationship between Scale 2 and the length of tenure, four groupings of academic discipline, and IE simultaneously, $R^2 = .26$, $F(8, 198) = 8.81$, $p < .001$. The effect size ($f^2 = .16$) was medium (McNeil, Newman, & Kelly, 1996; Cohen, 1992). The results of the multiple tests of unique variance accounted for are displayed in Table 10. They determined that only the scores on Intercultural Professional Development (IPD) accounted for a significant amount of unique variance in predicting Scale 2 ($t = 5.99$, $p < .01$) independent of all other IVs while controlling for Type I error build-up.

Table 9

Hypothesis 1b: Summary of Results of Regression Analysis, Scale 2 (Cognitive-Knowledge)

Model	R^2	df	F	p	f^2	Significance
Full	.263	8	8.811	.000	.16	S

Table 10

Hypothesis 1b: Predictor Variables, Scale 2 (Cognitive-Knowledge)

Variables	Full Model		
	b	t	p^*
(Constant)	2.998	6.000	.000
PHS	-.005	-.010	.992
AHS	-.367	-.789	.431
PSS	.184	.375	.708
ASS	.140	.284	.777
Ten	-.005	-1.192	.235
TA	.033	1.120	.264
SA	.031	.778	.437
IPD	.150	5.985	.000

Note. * p needed to be significant at .05 level when controlling for Type I error build-up is .006.

Hypothesis 1c. The results of the multiple linear regression analysis for Scale 3 (Intrapersonal – Identity) are presented in Table 11. The analysis provided evidence to accept Research Hypothesis 1c at .05 level of significance and state that for the given

population, there is a significant relationship between Scale 3 and the length of tenure, four groupings of academic discipline, and IE simultaneously, $R^2 = .11$, $F(8, 197) = 3.08$, $p < .003$. The effect size ($f^2 = .12$) approached medium (McNeil, Newman, & Kelly, 1996; Cohen, 1992). The results of the multiple tests of unique variance accounted for are displayed in Table 12. They determined that only the scores on IPD accounted for a significant amount of unique variance in predicting Scale 3 ($t = 3.65$, $p < .001$) independent of all other IVs while controlling for Type I error build-up.

Table 11

Hypothesis 1c: Summary of Results of Regression Analysis, Scale 3 (Intrapersonal – Identity)

Model	R^2	df	F	p	f^2	Significance
Full	.111	8	3.083	.003	.12	S

Table 12

Hypothesis 1c: Predictor Variables for Scale 3 (Intrapersonal – Identity)

Variables	Full Model		
	b	t	p^*
(Constant)	4.292	9.555	.000
PHS	-.447	-1.031	.304
AHS	-.706	-1.687	.093
PSS	-.447	-1.013	.312
ASS	-.383	-.863	.389
Ten	-.002	-.663	.508
TA	-.002	-.063	.950
SA	.046	1.277	.203
IPD	.082	3.646	.000

Note. * p needed to be significant at .05 level when controlling for Type I error build-up is .006.

Hypothesis 1d. The results of the multiple linear regression analysis for Scale 4 (Intrapersonal – Affect) are shown in Table 13. They provided evidence to reject Research Hypothesis 1d at .05 level of significance and state that for the given population, there is no significant relationship between Scale 4 and the length of tenure, four groupings of academic discipline, and IE simultaneously, $R^2 = .05$, $F(8, 193) = 1.24$, $p <$

.28 The results of the multiple tests of unique variance accounted for are displayed in Table 14. They determined that none of the IVs accounted for unique variance in predicting Scale 4 independent of all other IVs while controlling for Type I error build-up.

Table 13

Hypothesis 1d: Summary of Results of Regression Analysis, Scale 4 (Intrapersonal – Affect)

Model	R^2	df	F	p	Significance
Full	.049	8	1.238	.279	NS

Table 14

Hypothesis 1d: Predictor Variables for Scale 4 (Intrapersonal – Affect)

Variables	Full Model		
	b	t	p^*
(Constant)	3.787	9.703	.000
PHS	-.238	-.633	.528
AHS	-.445	-1.223	.223
PSS	-.385	-1.005	.316
ASS	-.416	-1.079	.282
Ten	-.004	-1.096	.274
TA	-.011	-.483	.630
SA	.018	.585	.559
IPD	.031	1.546	.124

Note. $*p$ needed to be significant at .05 level when controlling for Type I error build-up is .006.

Hypothesis 1e. The results of the multiple linear regression analysis for Scale 5 (Interpersonal – Social Responsibility) are presented in Table 15. The analysis provided evidence to reject Research Hypothesis 1e at .05 level of significance and state that for the given population, there is no significant relationship between Scale 5 and the length of tenure, four groupings of academic discipline, and IE simultaneously, $R^2 = .04$, $F(8, 178) = .95$, $p < .48$ The results of the multiple tests of unique variance accounted for are displayed in Table 16. They determined that none of the IVs accounted for unique variance in predicting Scale 5 independent of all other IVs while controlling for Type I error build-up.

Table 15

Hypothesis 1e: Summary of Results of Regression Analysis, Scale 5 (Interpersonal – Social Responsibility)

Model	R^2	df	F	p	Significance
Full	.041	8	.951	.476	NS

Table 16

Hypothesis 1e: Predictor Variables for Scale 5 (Interpersonal – Social Responsibility)

Variables	Full Model		
	b	t	p^*
(Constant)	3.210	5.995	.000
PHS	.241	.468	.640
AHS	.075	.153	.879
PSS	.224	.426	.670
ASS	.218	.413	.680
Ten	-.006	-1.343	.181
TA	.003	.086	.932
SA	-.024	-.536	.592
IPD	.061	2.234	.027

Note. $*p$ needed to be significant at .05 level when controlling for Type I error build-up is .006.

Hypothesis 1f. The results of the multiple linear regression analysis for Scale 6 (Interpersonal – Social Interaction) are provided in Table 17. Research Hypothesis 1f was accepted at .05 level of significance. For the given population, there is a significant relationship between Scale 6 and the length of tenure, four groupings of academic discipline, and IE simultaneously, $R^2 = .12$, $F(8, 198) = 3.27$, $p < .002$. The effect size ($f^2 = .13$) approached medium (McNeil, Newman, & Kelly, 1996; Cohen, 1992). The results of the multiple tests of unique variance accounted for are displayed in Table 18. They determined that only the scores on IPD accounted for a significant amount of unique variance in predicting Scale 6 ($t = 3.4$, $p < .001$) independent of all other IVs while controlling for Type I error build-up.

Table 17

Hypothesis 1f: Summary of Results of Regression Analysis, Scale 6 (Interpersonal – Social Interaction)

Model	R^2	df	F	p	f^2	Significance
Full	.117	8	3.272	.002	.13	S

Table 18

Hypothesis 1f: Predictor Variables for Scale 6 (Interpersonal – Social Interaction)

Variables	Full Model		
	b	t	p^*
(Constant)	3.558	7.339	.000
PHS	-.611	-1.307	.193
AHS	-.849	-1.880	.062
PSS	-.575	-1.208	.228
ASS	-.665	-1.389	.166
Ten	-.009	-2.162	.032
TA	.026	.913	.362
SA	.013	.333	.740
IPD	.083	3.397	.001

Note. *p needed to be significant at .05 level when controlling for Type I error build-up is .006.

Research Hypothesis 2

A set of multiple regression analyses was conducted to predict the scores on the GPI scales from the IVs—the length of tenure, academic discipline, and IE (consisting of travel abroad, study abroad and professional development) — independent of each other. In addition, multiple tests of unique variance accounted for by each of the IVs in predicting the GPI scales were conducted. Full Model 2 was used to test Research Hypothesis 2 to determine if each of the IVs predicted a significant amount of unique variance in each of the six GPI scales when controlling for the other IVs.

$$\text{Model 2. } Y_n \text{ (Scale n of GPI): } a_0U + a_1\text{PHS} + a_2\text{AHS} + a_3\text{PSS} + a_4\text{ASS} + a_5\text{Ten} + a_6\text{TA} + a_7\text{SA} + a_8\text{PD} + E_n$$

Restricted Models 2a, 2b and 2c stated that the tested IVs produced no difference on the respective GPI scales when controlling for the selected IVs.

$$\text{Restricted Model 2a: } Y_n = a_0U + a_5 \text{ Ten} + a_6 \text{ TA} + a_7 \text{ SA} + a_8 \text{ PD} + E_n$$

$$\text{Restricted Model 2b: } Y_n = a_0U + a_1 \text{ PHS} + a_2 \text{ AHS} + a_3 \text{ PSS} + a_4 \text{ ASS} + a_6 \text{ TA} \\ + a_7 \text{ SA} + a_8 \text{ PD} + E_n$$

$$\text{Restricted Model 2c: } Y_n = a_0U + a_1 \text{ PHS} + a_2 \text{ AHS} + a_3 \text{ PSS} + a_4 \text{ ASS} + a_5 \text{ Ten} \\ + E_n$$

Research Hypothesis 2a1. The results of the multiple linear regression analysis for Scale 1 (Cognitive - Knowing) are provided in Table 19. Research Hypothesis 2a1 was rejected at .05 level of significance. For the given population, there is no significant relationship between the scores on Scale 1 and the four groupings of Academic Discipline while controlling for the Length of Tenure and Intercultural Experience, $R^2 = .07$, $F(8, 196) = 1.775$, $p < .084$. The effect size (f^2) was .06. The results of the multiple tests of unique variance accounted for are displayed in Table 20. They determined that no IVs accounted for a significant amount of unique variance in predicting Scale 1 independent of all other IVs while controlling for Type I error build-up.

Table 19

Hypothesis 2a1: Summary of Results of Regression Analysis, Scale 1 (Cognitive – Knowing)

Model	R^2	df_1/df_2	F Change	p	f^2	Significance
Full	.117	4/196	.739	.566	.06	NS
Restricted	.068					

Table 20

Hypothesis 2a1: Predictor Variables for Scale 1 (Cognitive – Knowing)

Variables	Full Model			Restricted Model		
	<i>b</i>	<i>t</i>	<i>p</i> *	<i>B</i>	<i>t</i>	<i>p</i>
(Constant)	3.560	7.173	.000	3.121	35.831	.000
Length of Tenure	-.005	-1.169	.244	-.005	-1.190	.236
Travel outside of U.	.025	.850	.396	.025	.850	.396
Study/ training abroad	.028	.705	.481	.032	.834	.405
IPD	.056	2.237	.026	.063	2.559	.011
ASS	-.458	-.933	.352			
PHS	-.484	-1.010	.314			
AHS	-.386	-.835	.405			
PSS	-.378	-.776	.439			

Note. **p* needed to be significant at .05 level when controlling for Type I error build-up is .006.

Research Hypothesis 2a2. The results of the multiple linear regression analysis for Scale 2 (Cognitive - Knowledge) are provided in Table 21. Research Hypothesis 2a2 was accepted at .05 level of significance. It means that for the given population, there is a significant relationship between the scores on Scale 2 and the four groupings of Academic Discipline when controlling for the Length of Tenure and Intercultural Experience, $R^2 = .263$, $F(4, 198) = 4.314$, $p < .002$, with the effect size (f^2) of .09. The results of the multiple tests of unique variance accounted for are displayed in Table 22. They determined that only the IPD scores accounted for significant amount of unique variance in predicting Scale 2 ($t = 5.985$, $p < .00$) when controlling for all other variables in the model and Type I error build-up.

Table 21

Hypothesis 2a2: Summary of Results of Regression Analysis, Scale 2 (Cognitive – Knowledge)

Model	R^2	df_1/df_2	F Change	p	f^2	Significance
Full	.263	4/198	4.314	.002	.09	S
Restricted	.198					

Table 22

Hypothesis 2a2: Predictor Variables for Scale 2 (Cognitive – Knowledge)

Variables	Full Model			Restricted Model		
	b	t	p^*	b	t	p
(Constant)	2.998	6.000	.000	3.104	34.188	.000
Length of Tenure	-.005	-1.192	.235	-.005	-1.235	.218
Travel outside of U.	.033	1.120	.264	.039	1.259	.210
Study/ training abroad	.031	.778	.437	-.002	-.061	.952
IPD	.150	5.985	.000	.167	6.597	.000
ASS	.140	.284	.777			
PHS	-.005	-.010	.992			
AHS	-.367	-.789	.431			
PSS	.184	.375	.708			

Note. * p needed to be significant at .05 level when controlling for Type I error build-up is .006.

Research Hypothesis 2a3. As shown in Table 23, the results of the multiple linear regression analysis for Scale 3 (Intrapersonal – Identity) produced evidence to reject Research Hypothesis 2a3 at .05 level of significance, $R^2 = .111$, $F(4, 197) = 2.006$, $p < .095$, with a small effect size ($f^2 = .04$; Cohen, 1992; McNeil, Newman, & Kelly, 1996;). For the given population, there is no significant relationship between the scores on Scale 3 and the four groupings of Academic Discipline when controlling for the Length of Tenure and Intercultural Experience. The results of the multiple tests of unique variance accounted for are displayed in Table 24. They determined that only the IPD scores accounted for a significant amount of unique variance in predicting Scale 3 ($t = 3.646$, $p < .001$) when controlling for all other variables in the model and Type I error build-up.

Table 23

Hypothesis 2a3: Summary of Results of Regression Analysis, Scale 3 (Intrapersonal – Identity)

Model	R^2	df_1/df_2	F Change	p	f^2	Significance
Full	.111	4/197	2.006	.095	.04	NS
Restricted	.075					

Table 24

Hypothesis 2a3: Predictor Variables for Scale 3 (Intrapersonal – Identity)

Variables	Full Model			Restricted Model		
	b	t	p^*	b	t	p
(Constant)	4.292	9.555	.000	3.851	47.957	.000
Length of Tenure	-.002	-.663	.508	-.002	-.592	.554
Travel outside of U.	-.002	-.063	.950	.003	.105	.916
Study/ training abroad	.046	1.277	.203	.027	.764	.446
IPD	.082	3.646	.000	.084	3.770	.000
ASS	-.383	-.863	.389			
PHS	-.447	-1.031	.304			
AHS	-.706	-1.687	.093			
PSS	-.447	-1.013	.312			

Note. * p needed to be significant at .05 level when controlling for Type I error build-up is .006.

Research Hypothesis 2a4. As shown in Table 25, the results of the multiple linear regression analysis for Scale 4 (Intrapersonal – Affect) produced evidence to reject Research Hypothesis 2a4 at .05 level of significance, $R^2 = .049$, $F(4, 193) = 1.815$, $p < .128$, with an effect size approaching medium ($f^2 = .14$; McNeil, Newman, & Kelly, 1996; Cohen, 1992). For the given population, there is no significant relationship between the scores on Scale 4 and the four groupings of Academic Discipline while controlling for the Length of Tenure and Intercultural Experience. The results of the multiple tests of unique variance accounted for are displayed in Table 26. They determined that for the given population, no IVs accounted for a significant amount of unique variance in predicting Scale 4 when controlling for all other variables in the model and Type I error build-up.

Table 25

Hypothesis 2a4: Summary of Results of Regression Analysis, Scale 4 (Intrapersonal – Affect)

Model	R^2	df_1/df_2	F Change	p	f^2	Significance
Full	.221	4/193	1.815	.128	.14	NS
Restricted	.114					

Table 26

Hypothesis 2a4: Predictor Variables for Scale 4 (Intrapersonal – Affect)

Variables	Full Model			Restricted Model		
	b	t	p^*	b	t	p
(Constant)	3.787	9.703	.000	3.423	48.931	.000
Length of Tenure	-.004	-1.096	.274	-.003	-.898	.370
Travel outside of U.	-.011	-.483	.630	-.013	-.544	.587
Study/ training abroad	.018	.585	.559	.020	.669	.504
IPD	.031	1.546	.124	.026	1.311	.191
ASS	-.416	-1.079	.282			
PHS	-.238	-.633	.528			
AHS	-.445	-1.223	.223			
PSS	-.385	-1.005	.316			

Note. * p needed to be significant at .05 level when controlling for Type I error build-up is .006.

Research Hypothesis 2a5. As shown in Table 27, the results of the multiple linear regression analysis for Scale 5 (Interpersonal – Social Responsibility) produced evidence to reject Research Hypothesis 2a5 at .05 level of significance, $R^2 = .041$, $F(4, 178) = .221$, $p < .926$, with a small effect size ($f^2 = .01$; Cohen, 1992; McNeil, Newman, & Kelly, 1996;). It means that for the given population, there is no significant relationship between the scores on Scale 5 and the four groupings of Academic Discipline while controlling for the Length of Tenure and Intercultural Experience. The results of the multiple tests of unique variance accounted for are displayed in Table 28. They determined that for the given population, no IVs accounted for a significant amount of unique variance in predicting Scale 5 when controlling for all other variables in the model and Type I error build-up.

Table 27

Hypothesis 2a5: Summary of Results of Regression Analysis, Scale 5 (Interpersonal – Social Responsibility)

Model	R^2	df_1/df_2	F Change	p	f^2	Significance
Full	.203	4/178	.221	.926	.01	NS
Restricted	.190					

Table 28

Hypothesis 2a5: Predictor Variables for Scale 5 (Interpersonal – Social Responsibility)

Variables	Full Model			Restricted Model		
	b	t	p^*	b	t	p
(Constant)	3.210	5.995	.000	3.435	35.647	.000
Length of Tenure	-.006	-1.343	.181	-.006	-1.355	.177
Travel outside of U.	.003	.086	.932	.003	.092	.927
Study/ training abroad	-.024	-.536	.592	-.029	-.680	.498
IPD	.061	2.234	.027	.062	2.331	.021
ASS	.218	.413	.680			
PHS	.241	.468	.640			
AHS	.075	.153	.879			
PSS	.224	.426	.670			

Note. * p needed to be significant at .05 level when controlling for Type I error build-up is .006.

Research Hypothesis 2a6. As shown in Table 29, the results of the multiple linear regression analysis for Scale 6 (Interpersonal – Social Interaction) produced evidence to reject Research Hypothesis 2a6 at .05 level of significance. It means that for the given population, there is no significant relationship between the scores on Scale 6 and the four groupings of Academic Discipline while controlling for the Length of Tenure and Intercultural Experience, $R^2 = .117$, $F(4, 198) = 1.970$, $p < .101$, with an effect size (f^2) of .05. The results of the multiple tests of unique variance accounted for are displayed in Table 30. They determined that for the given population, only the scores on IPD accounted for a significant amount of unique variance in predicting Scale 6, while controlling for all other variables in the model and Type I error build-up.

Table 29

Hypothesis 2a6: Summary of Results of Regression Analysis, Scale 6 (Interpersonal – Social Interaction)

Model	R^2	df_1/df_2	F Change	p	f^2	Significance
Full	.432	4/198	1.970	.101	.053	NS
Restricted	.286					

Table 30

Hypothesis 2a6: Predictor Variables for Scale 6 (Interpersonal – Social Interaction)

Variables	Full Model			Restricted Model		
	b	t	p^*	b	t	p
(Constant)	3.558	7.339	.000	2.930	34.042	.000
Length of Tenure	-.009	-2.162	.032	-.008	-1.986	.048
Travel outside of U.	.026	.913	.362	.027	.919	.359
Study/ training abroad	.013	.333	.740	.003	.073	.942
IPD	.083	3.397	.001	.089	3.700	.000
ASS	-.665	-1.389	.166			
PHS	-.611	-1.307	.193			
AHS	-.849	-1.880	.062			
PSS	-.575	-1.208	.228			

Note. * p needed to be significant at .05 level when controlling for Type I error build-up is .006.

Research Hypothesis 2b1. The results of the multiple linear regression analysis for Scale 1 (Cognitive - Knowing) are provided in Table 31. The analysis produced evidence to reject Research Hypothesis 2b1 at .05 level of significance. It means that for the given population, there is no significant relationship between the scores on Scale 1 and the Length of Tenure, when controlling for Academic Discipline and Intercultural Experience, $R^2 = .068$, $F(1, 196) = 1.366$, $p < .244$, with a small effect size ($f^2 = .01$; Cohen, 1992; McNeil, Newman, & Kelly, 1996). The results of the multiple tests of unique variance accounted for are displayed in Table 32. They determined that for the given population, no IVs accounted for a significant amount of unique variance in predicting Scale 1 when controlling for all other variables in the model and Type I error build-up.

Table 31

Hypothesis 2b1: Summary of Results of Regression Analysis, Scale 1 (Cognitive – Knowing)

Model	R^2	df_1/df_2	F Change	p	f^2	Significance
Full	.260	1/196	1.366	.244	.01	NS
Restricted	.247					

Table 32

Hypothesis 2b1: Predictor Variables for Scale 1 (Cognitive – Knowing)

Variables	Full Model			Restricted Model		
	b	t	p^*	b	t	p
(Constant)	3.560	7.173	.000	3.498	7.082	.000
Travel outside of U.	.025	.850	.396	.021	.705	.481
Study/ training abroad	.028	.705	.481	.030	.754	.452
IPD	.056	2.237	.026	.051	2.055	.041
ASS	-.458	-.933	.352	-.423	-.863	.389
PHS	-.484	-1.010	.314	-.461	-.962	.337
AHS	-.386	-.835	.405	-.353	-.763	.446
PSS	-.378	-.776	.439	-.347	-.713	.477
Tenure	-.005	-1.169	.244			

Note. * p needed to be significant at .05 level when controlling for Type I error build-up is .006.

Research Hypothesis 2b2. As shown in Table 33, the results of the multiple linear regression analysis for Scale 2 (Cognitive - Knowledge) produced evidence to reject Research Hypothesis 2b2 at .05 level of significance. It means that for the given population, there is no significant relationship between the scores on Scale 2 and the Length of Tenure, when controlling for Academic Discipline and Intercultural Experience, $R^2 = .263$, $F(1, 198) = 1.421$, $p < .235$, with a small effect size ($f^2 = .01$; Cohen, 1992; McNeil, Newman, & Kelly, 1996). The results of the multiple tests of unique variance accounted for are displayed in Table 34. They determined that for the given population, only the scores on IPD accounted for a significant amount of unique variance in predicting Scale 2 ($t = 5.985$, $p < .001$) when controlling for all other variables in the model and Type I error build-up.

Table 33

Hypothesis 2b2: Summary of Results of Regression Analysis, Scale 2 (Cognitive – Knowledge)

Model	R^2	df_1/df_2	F Change	p	f^2	Significance
Full	.263	1/198	4.314	.235	.01	NS
Restricted	.257		-	-	--	-

Table 34

Hypothesis 2b2: Predictor Variables for Scale 2 (Cognitive – Knowledge)

Variables	Full Model			Restricted Model		
	b	t	p^*	b	t	p
(Constant)	2.998	6.000	.000	2.933	5.899	.000
Travel outside of U.	.033	1.120	.264	.029	.980	.328
Study/ training abroad	.031	.778	.437	.033	.832	.407
IPD	.150	5.985	.000	.145	5.859	.000
ASS	.140	.284	.777	.177	.359	.720
PHS	-.005	-.010	.992	.019	.040	.968
AHS	-.367	-.789	.431	-.332	-.714	.476
PSS	.184	.375	.708	.217	.442	.659
Tenure	-.005	-1.192	.235			

Note. * p needed to be significant at .05 level when controlling for Type I error build-up is .006.

Research Hypothesis 2b3. As shown in Table 35, the results of the multiple linear regression analysis for Scale 3 (Intrapersonal – Identity) produced evidence to reject Research Hypothesis 2a3 at .05 level of significance. It means that for the given population, there is no significant relationship between the scores on Scale 3 and the Length of Tenure, when controlling for Academic Discipline and Intercultural Experience, $R^2 = .263$, $F(1, 198) = 1.421$, $p < .235$, with a small effect size ($f^2 = .00$; McNeil, Newman, & Kelly, 1996; Cohen, 1992). The results of the multiple tests of unique variance accounted for are displayed in Table 36. They determined that for the given population, only the scores on IPD accounted for a significant amount of unique variance in predicting Scale 3 ($t = 3.646$, $p < .001$) when controlling for all other variables in the model and Type I error build-up.

Table 35

Hypothesis 2b3: Summary of Results of Regression Analysis, Scale 3 (Intrapersonal – Identity)

Model	R^2	df_1/df_2	F Change	p	f^2	Significance
Full	.111	1/197	.439	.508	.00	NS
Restricted	.109		-	-	-	-

Table 36

Hypothesis 2b3: Predictor Variables for Scale 3 (Intrapersonal – Identity)

Variables	Full Model			Restricted Model		
	b	t	p^*	b	t	p
(Constant)	4.292	9.555	.000	4.260	9.552	.000
Travel outside of U.	-.002	-.063	.950	-.004	-.141	.888
Study/ training abroad	.046	1.277	.203	.047	1.303	.194
IPD	.082	3.646	.000	.079	3.590	.000
ASS	-.383	-.863	.389	-.366	-.826	.410
PHS	-.447	-1.031	.304	-.435	-1.006	.316
AHS	-.706	-1.687	.093	-.689	-1.652	.100
PSS	-.447	-1.013	.312	-.432	-.982	.327
Tenure	-.002	-.663	.508	-	-	-

Note. $*p$ needed to be significant at .05 level when controlling for Type I error build-up is .006.

Research Hypothesis 2b4. As shown in Table 37, the results of the multiple linear regression analysis for Scale 4 (Intrapersonal – Affect) produced evidence to reject Research Hypothesis 2b4 at .05 level of significance. It means that for the given population, there is no significant relationship between the scores on Scale 4 and the Length of Tenure, when controlling for Academic Discipline and Intercultural Experience, $R^2 = .049$, $F(1, 193) = 1.202$, $p < .274$, with a small effect size ($f^2 = .01$; McNeil, Newman, & Kelly, 1996; Cohen, 1992). The results of the multiple tests of unique variance accounted for are displayed in Table 38. They determined that for the given population, none of the IVs accounted for a significant amount of unique variance in predicting Scale 4 when controlling for all other variables in the model and Type I error build-up.

Table 37

Hypothesis 2b4: Summary of Results of Regression Analysis, Scale 4 (Intrapersonal – Affect)

Model	R^2	df_1/df_2	F Change	p	f^2	Significance
Full	.049	1/193	1.202	.274	.01	NS
Restricted	.043		-	-	-	-

Table 38

Hypothesis 2b4: Predictor Variables for Scale 4 (Intrapersonal – Affect)

Variables	Full Model			Restricted Model		
	b	t	p^*	b	t	p
(Constant)	3.787	9.703	.000	3.744	9.636	.000
Travel outside of U.	-.011	-.483	.630	-.015	-.652	.515
Study/ training abroad	.018	.585	.559	.019	.632	.528
IPD	.031	1.546	.124	.026	1.328	.186
ASS	-.416	-1.079	.282	-.392	-1.018	.310
PHS	-.238	-.633	.528	-.220	-.585	.559
AHS	-.445	-1.223	.223	-.422	-1.163	.246
PSS	-.385	-1.005	.316	-.364	-.951	.343
Tenure	-.004	-1.096	.274			

Note. * p needed to be significant at .05 level when controlling for Type I error build-up is .006.

Research Hypothesis 2b5. As shown in Table 39, the results of the multiple linear regression analysis for Scale 5 (Interpersonal – Social Responsibility) produced evidence to reject Research Hypothesis 2b5 at .05 level of significance. It means that for the given population, there is no significant relationship between the scores on Scale 5 and the Length of Tenure, when controlling for Academic Discipline and Intercultural Experience, $R^2 = .041$, $F(1, 178) = 1.805$, $p < .181$, with a small effect size ($f^2 = .01$; McNeil, Newman, & Kelly, 1996; Cohen, 1992). The results of the multiple tests of unique variance accounted for are displayed in Table 40. They determined that for the given population, none of the IVs accounted for a significant amount of unique variance in predicting Scale 5 when controlling for all other variables in the model and Type I error build-up.

Table 39

Hypothesis 2b5: Summary of Results of Regression Analysis, Scale 5 (Interpersonal – Social Responsibility)

Model	R^2	df_1/df_2	F Change	p	f^2	Significance
Full	.041	1/178	1.805	.181	.01	NS
Restricted	.031					

Table 40

Hypothesis 2b5: Predictor Variables for Scale 5 (Interpersonal – Social Responsibility)

Variables	Full Model			Restricted Model		
	b	t	p^*	b	t	p
(Constant)	3.210	5.995	.000	3.128	5.867	.000
Travel outside of U.	.003	.086	.932	-.002	-.076	.940
Study/ training abroad	-.024	-.536	.592	-.023	-.517	.606
IPD	.061	2.234	.027	.054	2.020	.045
ASS	.218	.413	.680	.266	.504	.615
PHS	.241	.468	.640	.275	.533	.595
AHS	.075	.153	.879	.116	.234	.815
PSS	.224	.426	.670	.265	.505	.614
Tenure	-.006	-1.343	.181			

Note. * p needed to be significant at .05 level when controlling for Type I error build-up is .006.

Research Hypothesis 2b6. As shown in Table 41, the results of the multiple linear regression analysis for Scale 6 (Interpersonal – Social Interaction) produced evidence to accept Research Hypothesis 2b6 at .05 level of significance. It means that for the given population, there is a significant relationship between the scores on Scale 6 and the Length of Tenure, when controlling for Academic Discipline and Intercultural Experience, $R^2 = .117$, $F(1, 198) = 4.675$, $p < .032$, with a small effect size ($f^2 = .02$; Cohen, 1992; McNeil, Newman, & Kelly, 1996). The results of the multiple tests of unique variance accounted for are displayed in Table 42. They determined that for the given population, only the scores on IPD accounted for a significant amount of unique variance in predicting Scale 6 ($t = 3.397$, $p < .001$) when controlling for all other variables in the model and Type I error build-up.

Table 41

Hypothesis 2b6: Summary of Results of Regression Analysis, Scale 6 (Interpersonal – Social Interaction)

Model	R^2	df_1/df_2	F Change	p	f^2	Significance
Full	.117	1/198	4.675	.032	.02	S
Restricted	.096					

Table 42

Hypothesis 2b6: Predictor Variables for Scale 6 (Interpersonal – Social Interaction)

Variables	Full Model			Restricted Model		
	b	t	p^*	b	t	p
(Constant)	3.558	7.339	.000	3.443	7.080	.000
Travel outside of U.	.026	.913	.362	.019	.645	.520
Study/ training abroad	.013	.333	.740	.016	.427	.670
IPD	.083	3.397	.001	.073	3.024	.003
ASS	-.665	-1.389	.166	-.600	-1.244	.215
PHS	-.611	-1.307	.193	-.569	-1.207	.229
AHS	-.849	-1.880	.062	-.788	-1.732	.085
PSS	-.575	-1.208	.228	-.518	-1.080	.281
Tenure	-.009	-2.162	.032			

Note. * p needed to be significant at .05 level when controlling for Type I error build-up is .006.

Research Hypothesis 2c1. As shown in Table 43, the results of the multiple linear regression analysis for Scale 1 (Cognitive - Knowing) produced evidence to accept Research Hypothesis 2c1 at .05 level of significance. It means that for the given population, there is a significant relationship between the scores on Scale 1 and Intercultural Experience, when controlling for Academic Discipline and the Length of Tenure, $R^2 = .068$, $F(3, 196) = 2.957$, $p < .034$, with an effect size (f^2) of .05. The results of the multiple tests of unique variance accounted for are displayed in Table 44. They determined that for the given population, none of the IVs accounted for a significant amount of unique variance in predicting Scale 1 when controlling for all other variables in the model and Type I error build-up.

Table 43

Hypothesis 2c1: Summary of Results of Regression Analysis, Scale 1 (Cognitive – Knowing)

Model	R^2	df_1/df_2	F Change	p	f^2	Significance
Full	.068	3/196	2.957	.034	.05	S
Restricted	.025		-	-	-	-

Table 44

Hypothesis 2c1: Predictor Variables for Scale 1 (Cognitive – Knowing)

Variables	Full Model			Restricted Model		
	b	t	p^*	b	t	p
(Constant)	3.560	7.173	.000	3.776	7.652	.000
ASS	-.458	-.933	.352	-.488	-.988	.324
PHS	-.484	-1.010	.314	-.530	-1.096	.275
AHS	-.386	-.835	.405	-.379	-.807	.421
PSS	-.378	-.776	.439	-.381	-.776	.438
Tenure	-.005	-1.169	.244	-.002	-.510	.611
Travel outside of U.	.025	.850	.396			
Study/ Training abroad	.028	.705	.481			
IPD	.056	2.237	.026			

Note. * p needed to be significant at .05 level when controlling for Type I error build-up is .006.

Research Hypothesis 2c2. As shown in Table 45, the results of the multiple linear regression analysis for Scale 2 (Cognitive - Knowledge) produced evidence to accept Research Hypothesis 2c2 at .05 level of significance. It means that for the given population, there is a significant relationship between the scores on Scale 2 and Intercultural Experience, when controlling for Academic Discipline and the Length of Tenure, $R^2 = .263$, $F(3, 198) = 14.826$, $p < .001$, with an effect size approaching large ($f^2 = .23$; Cohen, 1992; McNeil, Newman, & Kelly, 1996). The results of the multiple tests of unique variance accounted for are displayed in Table 46. They determined that for the given population, only the scores on IPD accounted for a significant amount of unique variance in predicting Scale 2 ($t = 5.985$, $p < .001$) when controlling for all other variables in the model and Type I error build-up.

Table 45

Hypothesis 2c2: Summary of Results of Regression Analysis, Scale 2 (Cognitive – Knowledge)

Model	R^2	df_1/df_2	F Change	p	f^2	Significance
Full	.263	3/198	14.826	.000	.23	S
Restricted	.097					

Table 46

Hypothesis 2c2: Predictor Variables for Scale 2 (Cognitive – Knowledge)

Variables	Full Model			Restricted Model		
	b	t	p^*	b	t	p
(Constant)	2.998	6.000	.000	3.344	6.223	.000
ASS	.140	.284	.777	.158	.294	.769
PHS	-.005	-.010	.992	-.030	-.057	.955
AHS	-.367	-.789	.431	-.320	-.627	.531
PSS	.184	.375	.708	.266	.497	.620
Tenure	-.005	-1.192	.235	.001	.286	.775
Travel outside of U.	.033	1.120	.264			
Study/ Training abroad	.031	.778	.437			
IPD	.150	5.985	.000			

Note. * p needed to be significant at .05 level when controlling for Type I error build-up is .006.

Research Hypothesis 2c3. As shown in Table 47, the results of the multiple linear regression analysis for Scale 3 (Intrapersonal – Identity) produced evidence to accept Research Hypothesis 2a3 at .05 level of significance. It means that for the given population, there is a significant relationship between the scores on Scale 3 and Intercultural Experience, when controlling for Academic Discipline and the Length of Tenure, $R^2 = .111$, $F(3, 197) = 5.633$, $p < .001$, with an effect size (f^2) of .09. The results of the multiple tests of unique variance accounted for are displayed in Table 48. They determined that for the given population, only the scores on IPD accounted for a significant amount of unique variance in predicting Scale 3 ($t = 3.646$, $p < .001$) when controlling for all other variables in the model and Type I error build-up.

Table 47

Hypothesis 2c3: Summary of Results of Regression Analysis, Scale 3 (Intrapersonal – Identity)

Model	R^2	df_1/df_2	F Change	p	f^2	Significance
Full	.111	3/197	5.633	.001	.09	S
Restricted	.035					

Table 48

Hypothesis 2c3: Predictor Variables for Scale 3 (Intrapersonal – Identity)

Variables	Full Model			Restricted Model		
	b	t	p^*	b	t	p
(Constant)	4.292	9.555	.000	4.502	9.894	.000
ASS	-.383	-.863	.389	-.406	-.890	.374
PHS	-.447	-1.031	.304	-.482	-1.080	.281
AHS	-.706	-1.687	.093	-.689	-1.593	.113
PSS	-.447	-1.013	.312	-.432	-.953	.342
Tenure	-.002	-.663	.508	.001	.145	.885
Travel outside of U.	-.002	-.063	.950			
Study/ Training abroad	.046	1.277	.203			
IPD	.082	3.646	.000			

Note. * p needed to be significant at .05 level when controlling for Type I error build-up is .006.

Research Hypothesis 2c4. As shown in Table 49, the results of the multiple linear regression analysis for Scale 4 (Intrapersonal – Affect) produced evidence to reject Research Hypothesis 2c4 at .05 level of significance. It means that for the given population, there is no significant relationship between the scores on Scale 4 and Intercultural Experience, when controlling for Academic Discipline and the Length of Tenure, $R^2 = .049$, $F(3, 193) = .924$, $p < .430$, with a small effect size ($f^2 = .02$; Cohen, 1992; McNeil, Newman, & Kelly, 1996). The results of the multiple tests of unique variance accounted for are displayed in Table 50. They determined that for the given population, none of the IVs accounted for a significant amount of unique variance in predicting Scale 4 when controlling for all other variables in the model and Type I error build-up.

Table 49

Hypothesis 2c4: Summary of Results of Regression Analysis, Scale 4 (Intrapersonal – Affect)

Model	R^2	df_1/df_2	F Change	p	f^2	Significance
Full	.049	3/193	.924	.430	.02	NS
Restricted	.035					

Table 50

Hypothesis 2c4: Predictor Variables for Scale 4 (Intrapersonal – Affect)

Variables	Full Model			Restricted Model		
	b	t	p^*	b	t	p
(Constant)	3.787	9.703	.000	3.829	10.026	.000
ASS	-.416	-1.079	.282	-.414	-1.084	.280
PHS	-.238	-.633	.528	-.239	-.640	.523
AHS	-.445	-1.223	.223	-.434	-1.196	.233
PSS	-.385	-1.005	.316	-.370	-.974	.331
Tenure	-.004	-1.096	.274	-.003	-.795	.427
Travel outside of U.	-.011	-.483	.630			
Study/ Training abroad	.018	.585	.559			
IPD	.031	1.546	.124			

Note. $*p$ needed to be significant at .05 level when controlling for Type I error build-up is .006.

Research Hypothesis 2c5. As shown in Table 51, the results of the multiple linear regression analysis for Scale 5 (Interpersonal – Social Responsibility) produced evidence to reject Research Hypothesis 2c5 at .05 level of significance. It means that for the given population, there is no significant relationship between the scores on Scale 5 and Intercultural Experience, when controlling for Academic Discipline and the Length of Tenure, $R^2 = .041$, $F(3, 178) = 1.752$, $p < .158$, with an effect size (f^2) of .04. The results of the multiple tests of unique variance accounted for are displayed in Table 52. They determined that for the given population, none of the IVs accounted for a significant amount of unique variance in predicting Scale 5 when controlling for all other variables in the model and Type I error build-up.

Table 51

Hypothesis 2c5: Summary of Results of Regression Analysis, Scale 5 (Interpersonal – Social Responsibility)

Model	R^2	df_1/df_2	F Change	p	f^2	Significance
Full	.041	3/178	1.752	.158	.04	NS
Restricted	.013					

Table 52

Hypothesis 2c5: Predictor Variables for Scale 5 (Interpersonal – Social Responsibility)

Variables	Full Model			Restricted Model		
	b	t	p^*	b	t	p
(Constant)	3.210	5.995	.000	3.222	6.099	.000
ASS	.218	.413	.680	.289	.548	.585
PHS	.241	.468	.640	.285	.553	.581
AHS	.075	.153	.879	.114	.230	.818
PSS	.224	.426	.670	.313	.596	.552
Tenure	-.006	-1.343	.181	-.004	-.939	.349
Travel outside of U.	.003	.086	.932			
Study/ Training abroad	-.024	-.536	.592			
IPD	.061	2.234	.027			

Note. * p needed to be significant at .05 level when controlling for Type I error build-up is .006.

Research Hypothesis 2c6. As shown in Table 53, the results of the multiple linear regression analysis for Scale 6 (Interpersonal – Social Interaction) produced evidence to accept Research Hypothesis 2c6 at .05 level of significance. It means that for the given population, there is a significant relationship between the scores on Scale 6 and Intercultural Experience, when controlling for Academic Discipline and the Length of Tenure, $R^2 = .117$, $F(3, 198) = 5.060$, $p < .002$, with an effect size approaching medium ($f^2 = .12$; Cohen, 1992; McNeil, Newman, & Kelly, 1996). The results of the multiple tests of unique variance accounted for are displayed in Table 54. They determined that for the given population, only the scores on IPD accounted for a significant amount of unique variance in predicting Scale 6 ($t = 3.397$, $p < .001$) when controlling for all other variables in the model and Type I error build-up.

Table 53

Hypothesis 2c6: Summary of Results of Regression Analysis, Scale 6 (Interpersonal – Social Interaction)

Model	R^2	df_1/df_2	F Change	p	f^2	Significance
Full	.117	3/198	5.060	.002	.12	S
Restricted	.049					

Table 54

Hypothesis 2c6: Predictor Variables for Scale 6 (Interpersonal – Social Interaction)

Variables	Full Model			Restricted Model		
	b	t	p^*	b	t	p
(Constant)	3.558	7.339	.000	3.763	7.698	.000
ASS	-.665	-1.389	.166	-.656	-1.339	.182
PHS	-.611	-1.307	.193	-.628	-1.310	.192
AHS	-.849	-1.880	.062	-.825	-1.775	.077
PSS	-.575	-1.208	.228	-.533	-1.095	.275
Tenure	-.009	-2.162	.032	-.005	-1.276	.203
Travel outside of U.	.026	.913	.362			
Study/ Training abroad	.013	.333	.740			
IPD	.083	3.397	.001			

Note. *p needed to be significant at .05 level when controlling for Type I error build-up is .006.

Post-Hoc Analyses.

Reliability of the GPI Scales

The GPI scale reliability analysis was conducted to measure the internal consistency of the scales. The main purpose of this analysis was to determine how well the items in the scale measure the underlying constructs with Cronbach's alpha coefficient. The results of the analysis of the GPI scale reliability for the population of the Ukrainian faculty are presented in Table 55. The analysis determined that all the GPI scales have a low level of internal consistency. (Alpha coefficient below .70 points to low estimates of scale reliability.)

Table 55

Reliability Coefficients for the GPI Scales

The GPI scale	Cronbach's Alpha
Scale 1 (Cognitive – Knowing)	.47
Scale 2 (Cognitive –Knowledge)	.58
Scale 3 (Intrapersonal – Identity)	.47
Scale 4 (Intrapersonal – Affect)	.58
Scale 5 (Interpersonal –Social Responsibility)	.47
Scale 6 (Interpersonal – Social Interaction)	.58

Scale Discrimination of the Modified GPI

As shown in Table 56, most of the GPI scales were significantly correlated and had acceptable scale discrimination. The scales with intercorrelations higher than .40—Cognitive-Knowledge/Intrapersonal-Identity, Intrapersonal-Identity/Interpersonal-Social Responsibility, and Interpersonal-Social Responsibility/ Interpersonal –Social Interaction—did not have a satisfactory level of scale discrimination, meaning they measured the constructs that overlapped more than 40%.

Table 56

Correlations among the six scales of the modified GPI

	Cognitive Knowledge	Intrapersonal Identity	Intrapersonal Affect	Interpersonal Social Responsibility	Interpersonal Social Interaction
Cognitive Knowing	0.126*	0.008	0.264**	0.09	-0.017
Cognitive Knowledge		0.511**	0.128*	0.312**	0.323**
Intrapersonal Identity			0.244*	0.425**	0.33**
Intrapersonal Affect				0.261*	0.362**
Interpersonal Social Responsibility					0.41**

Note. *Correlations are significant at the 0.05 level. **Correlations are significant at the 0.01 level.

Confirmatory Factor Analysis of the GPI Scales

Confirmatory factor analysis is a statistical technique to test a theory about latent processes (Tabachnik & Fidell, 2007). The procedure was conducted to investigate the stability estimates of the factor structure of GPI. In other words, the researcher tested if the same GPI factors (underlying constructs) appear (if they match the theory) after the research data is factor analyzed. Using SPSS 21 software, the researcher employed the principle components analysis (PCA) to extract the factors from the correlation matrix, determine their total number, rotate the factors using varimax procedure, interpret the results, and name the factors. The principle components analysis is a procedure used to analyze the variance of each observed variable, in which “each variable contributes a unit of variance by contributing a 1 to the positive diagonal of the correlation matrix” (Tabachnik & Fidell, 2007, p. 635).

In other words, PCA was used to extract the maximum variance from the components, with the first component being a “the linear combination of observed variables that maximally separates subjects by maximizing the variance of their component scores” and the second component being “the linear combination of observed variables that extracts maximum variability uncorrelated with the first component” (Tabachnik & Fidell, 2007, p. 635). The aim of factor rotation was to maximize high correlations and minimize low correlations between factors and variables in order to interpret them adequately (Tabachnik & Fidell, 2007). Varimax rotation employed in this study is the most commonly used orthogonal technique to maximize the variance of factor loadings. To interpret the results, the researcher used variables with correlations of .55

(30% overlapping variance) and larger. It was hypothesized that the GPI scales are unidimensional for the population of the Ukrainian faculty.

Scale 1 (Cognitive – Knowing). The results of the principal component analysis for Scale 1 (Cognitive – Knowing) are presented in Table 57. The initial hypothesis of unidimensionality was rejected. The rotated solution yielded three factors measuring three types of Cognitive – Knowing: (a) biased knowing (Questions 1, 7, 24, and 35), (b) multiple perspectives (Questions 18 and 23), and culture – opinion (Q6). As presented in Table 58, the biased knowing component accounted for 24.9 % of the scale variance; the multiple perspectives component accounted for 19.6 % of the scale variance; and the culture –opinion component accounted for 15.5 % of the scale variance. In total, these three components accounted for 60 % of the scale variance.

Table 57

Results of PCA for Scale 1 (Cognitive – Knowing)

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1 (Biased knowing)	1.796	25.659	25.659	1.742	24.884	24.884
2 (Multiple perspectives)	1.370	19.567	45.226	1.374	19.635	44.519
3 (Culture – Opinion)	1.035	14.793	60.019	1.085	15.500	60.019
4	.839	11.993	72.011			
5	.738	10.538	82.549			
6	.628	8.972	91.522			
7	.593	8.478	100.000			

Table 58

<i>Correlations between the Scale 1 items and the Scale 1 factors</i>			
Scale 1 items	Factors		
	Biased Knowing	Multiple Perspectives	Culture - Opinion
Biased Knowing items			
1. When I notice cultural differences, my culture tends to have the better approach.*	.619	-.040	-.343
7. In different settings what is right and wrong is simple to determine.*	.695	-.274	.150
24. I rely primarily on authorities to determine what is true in the world.*	.630	.070	-.232
35. I rarely question what I have been taught about the world around me.*	.658	-.039	.010
Multiple Perspectives items			
18. I take into account different perspectives before drawing conclusions about the world around me.	.133	.804	.131
23. I consider different cultural perspectives when evaluating global problems.	.129	.799	-.017
Culture – Opinion items			
6. Some people have a culture and others do not.*	.256	-.052	.908
Note. * Reversed items			

Scale 2 (Cognitive – Knowledge). The results of the factor analysis of Scale 2 are presented in Table 59. The hypothesis of unidimensionality was accepted. The principal component analysis determined that only one component was extracted; therefore, no adjustments to Scale 2 for the given population are necessary

Table 59

Results of PCA for Scale 2 (Cognitive – Knowledge)

Scale 2 Items	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
8. I am informed of current issues that impact international relations.	2.344	46.888	46.888
13. I understand the reasons and causes of conflict among nations of different cultures.	.873	17.453	64.341
19. I understand how various cultures of this world interact socially.	.700	13.992	78.332
25. I know how to analyze the basic characteristics of a culture.	.581	11.613	89.945
32. I can discuss cultural differences from an informed perspective.	.503	10.055	100.000

Scale 3 (Intrapersonal – Identity). The results of the principal component analysis of Scale 3 are presented in Table 60. The initial hypothesis of unidimensionality was rejected. The rotated solution yielded two factors measuring two types of Intrapersonal – Identity: (a) Adaptability to Different Situations (Questions 3 and 14) and (b) Philosophy of Life (Question 33). Questions 2, 9, and 22 loaded on more than one factor and were excluded from the scale. As presented in Table 61, the first rotated component accounted for 29.15 % of the scale variance and the second component accounted for 25.46 % of the scale variance. In total, both components accounted for 54.61 % of the scale variance.

Table 60

Results of PCA for Scale 3 (Intrapersonal – Identity)

Components	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1 (Adaptability to Different Situations)	2.221	37.011	37.011	1.749	29.152	29.152
2 (Philosophy of Life)	1.056	17.596	54.608	1.527	25.456	54.608
3	.856	14.262	68.870			
4	.734	12.238	81.107			
5	.612	10.201	91.308			
6	.521	8.692	100.000			

Table 61

Correlations between the Scale 3 items and the Scale 3 factors

Scale 3 items	Factors	
	Adaptability to Different Situations	Philosophy of Life
Adaptability to Different Situations items		
3. I can explain my personal values to people who are different from me.	.764	.159
14. I am confident that I can take care of myself in a completely new situation.	.734	-.063
Philosophy of Life items		
33. I am developing a meaningful philosophy of life.	-.126	.829
Items loaded on more than one factor		
2. I have a definite purpose in my life.	.458	.622
9. I know who I am as a person.	.191	.550
22. I put my beliefs into action by standing up for my principles.	.604	.349

Scale 4 (Intrapersonal – Affect). The results of the principal components analysis for Scale 4 are presented in Table 62. The initial hypothesis of unidimensionality was rejected. The rotated solution yielded three factors measuring three types of Intrapersonal – Affect: (a) Other backgrounds – Attitude (Questions 10, 26, and 29), (b) Self-Awareness (Questions 36 and 17), and (c) Self-Awareness - Action (Q11). As presented in Table 63, the first rotated component accounted for 22% of the scale variance; the second rotated

component accounted for 16.6 % of the scale variance; and the third one accounted for 14.78 % of the scale variance. In total, the three components accounted for 53.41 % of the scale variance. Questions 20 and 27 loaded on two factors and were excluded from the GPI in measuring the given population.

Table 62

Results of PCA for Scale 4 (Intrapersonal – Identity)

Components	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1 (Other Backgrounds - Opinion)	1.836	22.944	22.944	1.763	22.032	22.032
2 (Self-Awareness)	1.333	16.662	39.606	1.328	16.598	38.630
3 (Self-Awareness - Action)	1.104	13.805	53.412	1.183	14.782	53.412
4	.928	11.602	65.013			
5	.866	10.826	75.840			
6	.700	8.745	84.585			
7	.687	8.590	93.175			
8	.546	6.825	100.000			

Table 63

Correlations between Scale 4 items and Scale 4 factors

Scale 4 items	Factors		
	Other Backgrounds - Opinion	Self-Awareness	Self-Awareness - Action
Other Backgrounds - Opinion items			
10. I feel threatened around people from backgrounds very different from my own.*	.705	.103	-.330
26. I am sensitive to those who are discriminated against.	.700	-.334	.204
29. I am accepting of people with different religious and spiritual traditions.	.616	.021	.142
Self-Awareness items			
17. I see myself as a global citizen.	.157	-.608	.144
36. I constantly need affirmative confirmation about myself from others.*	.020	.732	.094
Self-Awareness - Action			
11. I often get out of my comfort zone to better understand myself.	-.070	.025	.842
Items Loaded one more than one factor			
20. I get offended often by people who do not understand my point-of-view.*	.472	.546	.135
27. I do not feel threatened emotionally when presented with multiple perspectives.	.379	-.011	.505

Note. * Reversed items

Scale 5 (Interpersonal – Social Responsibility). The results of the principal components analysis of Scale 5 are presented in Table 64. The hypothesis of unidimensionality was accepted. The principal component analysis determined that only one component was extracted; therefore, no adjustments to Scale 5 for the given population are necessary.

Table 64

Results of Factor Analysis for Scale 5 (Interpersonal – Social Responsibility)

Scale 5 Items	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
5. I think of my life in terms of giving back to society.	1.852	37.046	37.046
16. I work for the rights of others.	.927	18.548	55.594
31. I put the needs of others above my own personal wants.	.911	18.219	73.813
38. I consciously behave in terms of making a difference.	.716	14.320	88.133
40. Volunteering is not an important priority in my life.*	.593	11.867	100.000

Note. * Reversed items

Scale 6 (Interpersonal – Social Interaction). The results of the principal component analysis for Scale 6 are presented in Table 65. The initial hypothesis of unidimensionality was rejected. The rotated solution yielded two factors measuring two types of Interpersonal – Social Interaction: (a) cooperation with other cultures (Questions 15, 21, 28, and 34) and (b) friends' background (Question 4 and 37). As presented in Table 63, the first rotated component accounted for 31.4% of the scale variance and the second rotated component accounted for 17.6 % of the scale variance. In total, both components accounted for 48.73 % of the scale variance. Question 39 loaded on two factors and was excluded from the GPI in measuring the given population.

Table 65

Results of PCA for Scale 6 (Interpersonal – Social Interaction)

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1 (Cooperation with Other Cultures)	2.303	32.898	32.898	2.180	31.138	31.138
2 (Friends' Background)	1.108	15.834	48.733	1.232	17.595	48.733
3	.929	13.276	62.008			
4	.843	12.043	74.051			
5	.668	9.536	83.587			
6	.646	9.232	92.819			
7	.503	7.181	100.000			

Table 66

Correlations between Scale 6 items and Scale 6 factors

Scale 6 items	Factors	
	Cooperation with Other Cultures	Friends' Background
Cooperation with Other Cultures items		
15. People from other cultures tell me that I am successful at navigating their cultures.	.634	.053
21. I am able to take on various roles as appropriate in different cultural and ethnic settings.	.647	-.046
28. I prefer to work with people who have different cultural values from me.	.542	-.004
34. I intentionally involve people from many cultural backgrounds in my life.	.723	.095
Friends' Background items		
4. Most of my friends are from my own ethnic background.*	.221	-.832
Items loaded on more than one factor		
37. I enjoy when my friends from other cultures teach me about our cultural differences.	.445	.627
39. I am open to people who strive to live lives very different from my own life style.	.544	.363

Note. * Reversed items

Stability of the factor structure of the modified GPI based on 50 % sample. To determine the stability of the factor structure of the modified version of the GPI, the researcher conducted a confirmatory factor analysis of the GPI scales on a randomized sample of 50 percent of the total sample size. It was hypothesized that the factor structure of the modified GPI was stable, meaning that the factor analysis would produce the same factor structure.

Scale 1. The results of factor analysis for Scale 1 are compared in Table 67. All three factors were reproduced, with Biased Knowing subscale accounting for 26.2 % of Scale1; Multiple Perspectives subscale accounting for 19 % of Scale 1; and Culture – Opinion subscale accounting for 15.1 % of Scale 1. In total, the subscales based on 50 % sample accounted for 60.3 % of the total variance of Scale 1 and were very close to the results of factor analysis based on the 100 % of the sample that accounted for 60 % of the total variance of Scale 1. The item analysis produced consistent results in both samples. Therefore, the three subscales of Scale 1 were found stable to measure the population of Ukrainian faculty members.

Table 67

Comparison of the Results of Factor Analysis for Scale 1 Based on 100% and 50% Sample

Scale 1 items	Factors					
	Biased Knowing		Multiple Perspectives			Culture - Opinion
	I	II	I	II	I	II
Biased Knowing items						
1. When I notice cultural differences, my culture tends to have the better approach.*	.619	.638	-.040	-.017	-.343	.135
7. In different settings what is right and wrong is simple to determine.*	.695	.695	-.274	-.111	.150	-.140
24. I rely primarily on authorities to determine what is true in the world.*	.630	.654	.070	.244	-.232	-.360
35. I rarely question what I have been taught about the world around me.*	.658	.667	-.039	.022	.010	.266
Multiple Perspectives items						
18. I take into account different perspectives before drawing conclusions about the world around me.	.133	-.181	.804	.822	.131	-.039
23. I consider different cultural perspectives when evaluating global problems.	.129	.166	.799	.763	-.017	.096
Culture – Opinion items						
6. Some people have a culture and others do not.*	.256	.055	-.052	.071	.908	.902

Note. * Reversed item; I - results based on 100% of sample; II - results based on 50 % sample

Scale 2. The results of factor analysis of Scale 2 are presented in Table 68. The factor analysis on 50 % of the sample produced two factors that accounted for 65.8% of the total variance of Scale 2. The analysis based on 100% of the sample produced only one factor that accounted for 46.9 % of the total variance of Scale 2. The difference between the results of the reproduced factors in both samples pointed to an unstable factor structure of Scale 2 for the population of Ukrainian faculty.

Table 68

Comparison of the Results of Factor Analysis for Scale 2 Based on 100% and 50% Sample

Scale 2 Items	Initial Eigenvalues					
	Total		% of Variance		Cumulative %	
	I	II	I	II	I	II
8. I am informed of current issues that impact international relations.	2.344	2.242	46.888	44.835	46.888	44.835
13. I understand the reasons and causes of conflict among nations of different cultures.	.873	1.050	17.453	20.998	64.341	65.833
19. I understand how various cultures of this world interact socially.	.700	.699	13.992	13.974	78.332	79.807
25. I know how to analyze the basic characteristics of a culture.	.581	.592	11.613	11.836	89.945	91.643
32. I can discuss cultural differences from an informed perspective.	.503	.418	10.055	8.357	100.000	100.00

Note. I - results based on 100% of sample; II - results based on 50 % sample

Scale 3. The results of factor analysis of Scale 3 were compared in Table 69. The same two factors were reproduced in both analyses, with Adaptability to Different Situations subscale accounting for 36.8 % of variance in Scale 3 and Philosophy of Life subscale accounting for 17.6 % of variance in Scale 3. In total, both subscales accounted for 54.4 % of the total variance of Scale 3 for 50 % sample and were similar to the results of factor analysis based on the 100 % of the sample that accounted for 54.6 % of the total variance of Scale 3. The analysis of the subscale items confirmed stability of both subscales and determined that Questions 2, 9, and 22 similarly loaded on more than one factor in both samples. Therefore, the subscales Adaptability to Different Situations and Philosophy of Life of Scale 3 were considered stable for the population of Ukrainian faculty members.

Table 69

Comparison of the Results of Factor Analysis for Scale 3 Based on 50% and 100% Sample

Scale 3 items	Factors			
	Adaptability to Different Situations		Philosophy of Life	
	I	II	I	II
Adaptability to Different Situations items				
3. I can explain my personal values to people who are different from me.	.764	.811	.159	.009
14. I am confident that I can take care of myself in a completely new situation.	.734	.641	-.063	.047
Philosophy of Life items				
33. I am developing a meaningful philosophy of life.	-.126	-.128	.829	.918
Items loaded on more than one factor				
2. I have a definite purpose in my life.	.458	.640	.622	.361
9. I know who I am as a person.	.191	.331	.550	.466
22. I put my beliefs into action by standing up for my principles.	.604	.476	.349	.491

Note. I - results based on 100% of sample; II - results based on 50 % sample

Scale 4. The results of factor analysis for Scale 4 are compared in Table 70. The same two factors were reproduced on 50 % of the sample, with Other Backgrounds – Opinion subscale accounting for 27.3 % of variance in Scale 4; Self-Awareness accounting for 16.1 % of variance in Scale 4.; and Self-Awareness - Action accounting for 13.8 % of variance in Scale 4. In total, the subscales based on 50 % sample accounted for 57.1 % of the total variance of Scale 4 and approached the results of factor analysis based on the 100 % of the sample that accounted for 53.4 % of the total variance of Scale 4. The item analysis determined that Other Backgrounds – Opinion subscale had a stable factor structure, while Self-Awareness and Self-Awareness - Action subscales did not reproduce the same factor structure and, therefore, had an unstable factor structure. The items that

loaded on more than one factor (Questions 20 and 27) in the 100 % sample similarly loaded on more than one factor in the 50 % sample.

Table 70

Comparison of the Results of Factor Analysis for Scale 4 Based on 100% and 50% Sample

Scale 4 items	Factors					
	Other Backgrounds - Opinion		Self-Awareness		Self-Awareness - Action	
	I	II	I	II	I	II
Other Backgrounds – Opinion items						
10. I feel threatened around people from backgrounds very different from my own.*	.705	.740	.103	-.167	-.330	.243
26. I am sensitive to those who are discriminated against.	.700	.690	-.334	.405	.204	-.198
29. I am accepting of people with different religious and spiritual traditions.	.616	.691	.021	.130	.142	-.084
Self-Awareness items						
17. I see myself as a global citizen.	.157	.085	-.608	.614	.144	-.287
36. I constantly need affirmative confirmation about myself from others.*	.020	-.054	.732	-.130	.094	.773
Self-Awareness - Action						
11. I often get out of my comfort zone to better understand myself.	-.070	-.167	.025	.699	.842	.464
Items Loaded one more than one factor						
20. I get offended often by people who do not understand my point-of-view.*	.472	.461	.546	.096	.135	.502
27. I do not feel threatened emotionally when presented with multiple perspectives.	.379	.403	-.011	.552	.505	-.026

Note. *Reversed items. I - results based on 100% of sample; II - results based on 50 % sample

Scale 5. The results of factor analysis for Scale 5 are compared in Table 71. The factor analysis in both 50 % and 100 % of samples produced one factor. The factor produced on half of the sample accounted for 42.3 % of the total variance of Scale 5, while the factor produced on the 100% of the sample accounted for 37 % of the total variance of Scale 5. These findings pointed to a stable factor structure of Scale 5 for the population of Ukrainian faculty.

Table 71

Comparison of the Results of Factor Analysis for Scale 5 Based on 50% and 100% Sample

Scale 5 Items	Initial Eigenvalues					
	Total I		% of Variance		Cumulative %	
	I	II	I	II	I	II
5. I think of my life in terms of giving back to society.	1.852	2.116	37.046	42.327	37.046	42.327
16. I work for the rights of others.	.927	.948	18.548	18.952	55.594	61.279
31. I put the needs of others above my own personal wants.	.911	.842	18.219	16.847	73.813	78.126
38. I consciously behave in terms of making a difference.	.716	.624	14.320	12.488	88.133	90.614
40. Volunteering is not an important priority in my life.*	.593	.469	11.867	9.386	100.000	100.00

Note. I - results based on 100% of sample; II - results based on 50 % sample

Scale 6. The results of factor analysis for Scale 6 are compared in Table 72. The factor analysis on both 50 % and 100 % of the sample produced two factors. The factors produced on half of the sample accounted for 30.6 % and 17.6 % of variance of Scale 6; the two factors together accounted for 48.2 % of the total variance of Scale 6. The results were similar for the 100 % of the sample, with two factors accounting for 31.1 % and 17.6 % of variance of Scale 6, and 48.7 % of the total variance of Scale 6. However, the item analysis pointed to an unstable factor structure of Scale 6. None of the factor items were reproduced, with some factor loadings producing opposite results in both samples (Question 15, 21, and 28) or some of the items being loaded on more than one factor (Question 34 and 4). The items that loaded on more than one factor (Questions 37 and 39) in the 100 % sample loaded on more than one factor in the 50 % sample.

Table 72

Comparison of the Results of Factor Analysis for Scale 6 based on 100% and 50% Sample

Scale 6 items	Factors			
	Cooperation with Other Cultures		Friends' Background	
	I	II	I	II
Cooperation with Other Cultures items				
15. People from other cultures tell me that I am successful at navigating their cultures.	.634	.052	.053	.624
21. I am able to take on various roles as appropriate in different cultural and ethnic settings.	.647	.087	-.046	.637
28. I prefer to work with people who have different cultural values from me.	.542	.228	-.004	.539
34. I intentionally involve people from many cultural backgrounds in my life.	.723	.546	.095	.449
Friends' Background				
4. Most of my friends are from my own ethnic background.*	.221	-.597	-.832	.470
Items loaded on more than one factor				
37. I enjoy when my friends from other cultures teach me about our cultural differences.	.445	.847	.627	.114
39. I am open to people who strive to live lives very different from my own life style.	.544	.549	.363	.306

Note. I - results based on 100% of sample; II - results based on 50 % sample

Results based on the second modified version of the GPI

The researcher cross-validated the GPI scales twice based on the whole sample of Ukrainian faculty ($N = 276$) and its randomized 50 % sample ($N = 138$). Table 73 outlined the scales and scale items of the modified research instrument. Based on the findings, only the stable factors that contained more than one item (statement) were used to retest the research hypotheses. Thus, Scales 1a, 1b, 3a, and 4a were used for further analysis. Because Scale 5 reproduced the same factor structure that the original version of the GPI

had, it did not require any modifications or further testing. Scales 2 and 6 produced unstable structure and were excluded from further analyses.

Table 73

Scales of the Second Modified Version of the GPI

Scale 1a - Biased Knowing

- 1. When I notice cultural differences, my culture tends to have the better approach.*
- 7. In different settings what is right and wrong is simple to determine.*
- 24. I rely primarily on authorities to determine what is true in the world.*
- 35. I rarely question what I have been taught about the world around me.*

Scale 1b - Multiple Perspectives

- 18. I take into account different perspectives before drawing conclusions about the world around me.
- 23. I consider different cultural perspectives when evaluating global problems.

Scale 3a – Adaptability to Different Situations

- 3. I can explain my personal values to people who are different from me.
- 14. I am confident that I can take care of myself in a completely new situation.

Scale 4a - Other Backgrounds – Opinion

- 10. I feel threatened around people from backgrounds very different from my own.*
- 26. I am sensitive to those who are discriminated against.
- 29. I am accepting of people with different religious and spiritual traditions.

Scale 5** - Social Responsibility

- 5. I think of my life in terms of giving back to society.
 - 16. I work for the rights of others.
 - 31. I put the needs of others above my own personal wants.
 - 38. I consciously behave in terms of making a difference.
 - 40. Volunteering is not an important priority in my life.*
-

Note. *Reversed items; **Scale was stable and did not need modification

Research Hypotheses

Research Question 1

Is there a relationship between the Ukrainian faculty responses on the four scales of the GPI and the following independent variables simultaneously - (a) four groupings of academic discipline, (b) intercultural experience (IE), and (c) the length of tenure?

Hypothesis 1. There is a significant relationship between the responses on the four scales of the GPI and the following independent variables simultaneously – the length of tenure, four groupings of academic discipline, and IE.

Hypothesis 1_a. There is a significant relationship between the scores on Biased Knowing (Scale 1a) and the following independent variables simultaneously – the length of tenure, four groupings of academic discipline, and IE.

Hypothesis 1_b. There is a significant relationship between the scores on Multiple Perspectives (Scale 1b) and the following independent variables simultaneously – the length of tenure, four groupings of academic discipline, and IE.

Hypothesis 1_c. There is a significant relationship between the scores on Adaptability to Different Situations (Scale 3a) and the following independent variables simultaneously – the length of tenure, four groupings of academic discipline, and IE.

Hypothesis 1_d. There is a significant relationship between the scores on Other Backgrounds – Opinion (Scale 4a) and the following independent variables simultaneously – the length of tenure, four groupings of academic discipline, and IE.

Research Question 2

Is there a relationship between the faculty responses on the four scales of the GPI and their (a) four groupings of academic discipline, (b) IE, and (c) length of tenure, independent of each other?

Hypothesis 2_a. There is a significant relationship between the responses on the four scales of GPI and four groupings of academic discipline, controlling for the length of tenure and IE.

Hypothesis 2_{a1}. There is a significant relationship between the faculty responses on Biased Knowing (Scale 1a) and four groupings of academic discipline, controlling for IE and the length of tenure.

Hypothesis 2_{a2}. There is a significant relationship between the faculty responses on Multiple Perspectives (Scale 1b) and four groupings of academic discipline, controlling for IE and the length of tenure.

Hypothesis 2_{a3}. There is a significant relationship between the faculty responses on Adaptability to Different Situations (Scale 3a) and four groupings of academic discipline, controlling for IE and the length of tenure.

Hypothesis 2_{a4}. There is a significant relationship between the faculty responses on Other Backgrounds – Opinion (Scale 4a) and four groupings of academic discipline, controlling for IE and the length of tenure.

Hypothesis 2_b. There is a significant relationship between the responses on the four scales of GPI and the length of tenure, controlling for the four groupings of academic discipline and IE.

Hypothesis 2_{b1}. There is a significant relationship between the faculty responses on Biased Knowing (Scale 1a) and the length of tenure, controlling for the four groupings of academic discipline and IE.

Hypothesis 2_{b2}. There is a significant relationship between the faculty responses on Multiple Perspectives (Scale 1b) and the length of tenure, controlling for the four groupings of academic discipline and IE.

Hypothesis 2_{b3}. There is a significant relationship between the faculty responses on Adaptability to Different Situations (Scale 3a) and the length of tenure, controlling for the four groupings of academic discipline and IE.

Hypothesis 2_{b4}. There is a significant relationship between the faculty responses on Other Backgrounds – Opinion (Scale 4a) and the length of tenure, controlling for the four groupings of academic discipline and IE.

Hypothesis 2_c. There is a significant relationship between the responses on the four scales of GPI and IE, controlling for the four groupings of academic discipline and the length of tenure.

Hypothesis 2_{c1}. There is a significant relationship between the faculty responses on Biased Knowing (Scale 1a) and IE, controlling for the four groupings of academic discipline and the length of tenure.

Hypothesis 2_{c2}. There is a significant relationship between the faculty responses on Multiple Perspectives (Scale 1b) and IE, controlling for the four groupings of academic discipline and the length of tenure.

Hypothesis 2_{c3}. There is a significant relationship between the faculty responses on Adaptability to Different Situations (Scale 3a) and IE, controlling for the four groupings of academic discipline and the length of tenure.

Hypothesis 2_{c4}. There is a significant relationship between the faculty responses on Other Backgrounds – Opinion (Scale 4a) and IE, controlling for the four groupings of academic discipline and the length of tenure.

Findings

Research Question 1

Table 74 presents the results of the multiple linear regression analysis for the second modified version of the GPI. The results of the analysis of Scales 1b (Multiple Perspectives) and 3a (Adaptability to Different Situations) produced evidence to accept Research Hypotheses 1_b and 1_c at .05 level of significance. It means that for the given population, there is a significant relationship between the faculty's responses on these scales and four groupings of Academic discipline, Intercultural Experience, and the Length of Tenure simultaneously. The relationship was positive on both scales, with medium effect size for Scale 1b ($f^2 = .15$) and approaching medium for Scale 3a ($f^2 = .13$; Cohen, 1992; McNeil, Newman, & Kelly, 1996). Subsequently, the results of the analyses produced evidence to reject the Research Hypotheses 1_a and 1_d at .05 level of significance. It means that there was no significant relationship found between the faculty's responses on Scale 1a (Biased Knowing) and Scale 4a (Other Backgrounds – Opinion) and four groupings of Academic Discipline, Intercultural Experience, and the Length of Tenure simultaneously.

The results of the multiple tests of unique variance accounted for are displayed in Tables 74-78. They determined that for the given population when controlling for all other variables in the model and Type I error build-up, (a) no IVs accounted for a significant amount of unique variance in predicting Scale 1a; (b) AHS accounted for a significant amount of unique variance in predicting Scale 1b ($t = -2.979, p < .003$) and produced a negative regression coefficient; (c) IPD approached a significant amount of unique variance in predicting Scale 1b ($t = 2.651, p < .009$); and (d) IPD accounted for a significant amount of unique variance in predicting Scale 3a ($t = 3.573, p < .001$).

Table 74

Hypothesis 1: Summary of Results of Regression Analysis for the Modified GPI Scales

Modified Scale	R^2	F	f^2	p	Significance	
1a Biased Knowing	.044	8	1.138	.05	.339	NS
1b Multiple Perspectives	.130	8	3.738	.15	.000	S
3a Adaptability to Different Situations	.116	8	3.275	.13	.002	S
4a Other Backgrounds – Opinion	.058	8	1.526	.06	.150	NS

Table 75

Hypothesis 1a: Predictor Variables for Scale 1a (Biased Knowing)

Variables	Full Model		
	b	t	p
(Constant)	3.102	7.221	.000
PHS	-.150	-2.013	.824
AHS	.192	-2.979	.768
PSS	-.046	-1.987	.946
ASS	-.243	-1.929	.724
Ten	-.003	-.634	.592
TA	.006	1.071	.893
SA	.033	.880	.549
IPD	.038	2.651	.274

Note. p needed to be significant at .05 level when controlling for Type I error build-up is .006. The descriptions of the variables are provided on p. 10.

Table 76

Hypothesis 1b: Predictor Variables for Scale 1b (Multiple Perspectives)

Variables	Full Model		
	<i>b</i>	<i>t</i>	<i>p</i>
(Constant)	4.918	7.221	.000
PHS	-1.323	-2.013	.045
AHS	-1.891	-2.979	.003
PSS	-1.329	-1.987	.048
ASS	-1.298	-1.929	.055
Ten	-.003	-.634	.527
TA	.043	1.071	.285
SA	.047	.880	.380
IPD	.090	2.651	.009

Note. *p* needed to be significant at .05 level when controlling for Type I error build-up is .006

Table 77

Hypothesis 1c: Predictor Variables for Scale 3a (Personal Values)

Variables	Full Model		
	<i>b</i>	<i>t</i>	<i>p</i>
(Constant)	3.355	5.232	.000
PHS	.148	.239	.812
AHS	-.289	-.483	.630
PSS	.217	.345	.730
ASS	.287	.453	.651
Ten	.001	.289	.773
TA	.001	.035	.972
SA	.047	.927	.355
IPD	.114	3.573	.000

Note. *p* needed to be significant at .05 level when controlling for Type I error build-up is .006. The descriptions of the variables are provided on p. 10.

Table 78

Hypothesis 1d: Predictor Variables for Scale 4a (Other Backgrounds – Opinion)

Variables	Full Model		
	<i>b</i>	<i>t</i>	<i>p</i>
(Constant)	4.181	7.502	.000
PHS	-.272	-.507	.613
AHS	-.698	-1.344	.180
PSS	-.500	-.914	.362
ASS	-.493	-.897	.371
Ten	.001	.233	.816
TA	.005	.166	.869
SA	.018	.421	.674
IPD	.044	1.567	.119

Note. *p* needed to be significant at .05 level when controlling for Type I error build-up is .006. The descriptions of the variables are provided on p. 10.

Hypothesis 2a

Table 79 presents the results of the multiple linear regression analysis of the second modified version of the GPI in testing Hypothesis 2. The results of the analyses produced evidence to accept Research Hypothesis 2_{a2} at .05 level of significance. It means that for the given population, there is a significant relationship between the scores on Scale 1b (Multiple Perspectives) and four groupings of Academic Discipline while controlling for the length of tenure and intercultural experience. The effect size (f^2) for Scale 1b was .09; and the relationship was positive. Subsequently, the results of the analyses produced evidence to reject Hypotheses 2_{a1} , 2_{a3} , and 2_{a4} at .05 level of significance. It means that there was no significant relationship found between the faculty's responses on Scale 1a (Biased Knowing), Scale 3a (Adaptability to Different Situations), and Scale 4a (Other Backgrounds – Opinion) and four groupings of Academic Discipline, while controlling for the length of tenure and intercultural experience.

Table 79

<i>Hypothesis 2a: Summary of Results of Regression Analysis for the Modified GPI Scales</i>						
Modified Scale	R^2	$df_1/$ df_2	F Change	f^2	p	Significance
1a Biased Knowing	.044	4/199	1.355	.05	.251	NS
1b Multiple Perspectives	.130	4/200	4.269	.09	.002	S
3a Adaptability to Different Situations	.116	4/200	2.160	.04	.075	NS
4a Other Backgrounds – Opinion	.058	4/198	2.340	.09	.056	NS

The results of the multiple tests of unique variance accounted for in testing Hypothesis 2a are displayed in Tables 80-83. They determined that for the given population while controlling for all other variables in the model and Type I error build-up, (a) no IVs accounted for a significant amount of unique variance in predicting Scale 1a and 4a; (b)

APH accounted for a significant amount of unique variance in predicting Scale 1b ($t = -.483, p < .003$) and produced a negative regression coefficient; (c) IPD approached a significant amount of unique variance in predicting Scale 1b ($t = 3.573, p < .009$); and (d) IPD accounted for a significant amount of unique variance in predicting Scale 3a ($t = 1.096, p < .001$).

Table 80

Hypothesis 2a: Predictor Variables for Scale 1a (Biased Knowing)

Variables	Full Model		
	<i>b</i>	<i>t</i>	<i>p</i>
(Constant)	3.102	4.457	.000
Ten	-.003	-.536	.592
TA	.006	.134	.893
SA	.033	.600	.549
IPD	.038	1.096	.274
PHS	-.150	-.223	.824
AHS	.192	.295	.768
PSS	-.046	-.067	.946
ASS	-.243	-.353	.724

Note. *p* needed to be significant at .05 level when controlling for Type I error build-up is .006.

Table 81

Hypothesis 2a: Predictor Variables for Scale 1b (Multiple Perspectives)

Variables	Full Model		
	<i>b</i>	<i>t</i>	<i>p</i>
(Constant)	4.918	7.221	.000
Ten	-.003	-.634	.527
TA	.043	1.071	.285
SA	.047	.880	.380
IPD	.090	2.651	.009
PHS	-1.323	-2.013	.045
AHS	-1.891	-2.979	.003
PSS	-1.329	-1.987	.048
ASS	-1.298	-1.929	.055

Note. *p* needed to be significant at .05 level when controlling for Type I error build-up is .006.

Table 82

Variables	Full Model		
	<i>b</i>	<i>t</i>	<i>p</i>
(Constant)	3.355	5.232	.000
Ten	.001	.289	.773
TA	.001	.035	.972
SA	.047	.927	.355
IPD	.114	3.573	.000
PHS	.148	.239	.812
AHS	-.289	-.483	.630
PSS	.217	.345	.730
ASS	.287	.453	.651

Note. *p* needed to be significant at .05 level when controlling for Type I error build-up is .006.

Table 83

Hypothesis 2a: Predictor Variables for Scale 4a (Other Backgrounds – Opinion)

Variables	Full Model		
	<i>b</i>	<i>t</i>	<i>p</i>
(Constant)	4.181	7.502	.000
PHS	.001	.233	.816
AHS	.005	.166	.869
PSS	.018	.421	.674
ASS	.044	1.567	.119
Ten	-.272	-.507	.613
TA	-.698	-1.344	.180
SA	-.500	-.914	.362
IPD	-.493	-.897	.371

Note. *p* needed to be significant at .05 level when controlling for Type I error build-up is .006.

Hypothesis 2b

Table 84 presents the results of the multiple linear regression analysis for the second modified version of the GPI in testing Hypothesis 2b. The analyses produced evidence to reject Research Hypothesis 2b at .05 level of significance. It means that for the given population, there was no significant relationship between the scores on the tested four scales and the Length of Tenure while controlling for four groupings of academic discipline and intercultural experience.

Table 84

Hypothesis 2b: Summary of Results of Regression Analysis for the Modified GPI Scales

Modified Scale	R^2	$df_1/$ df_2	F Change	f^2	p	Significa nce
1a Biased Knowing	.044	1/199	.288	.00	.592	NS
1b Multiple Perspectives	.130	1/200	.402	.00	.527	NS
3a Adaptability to Different Situations	.116	1/200	.083	.00	.773	NS
4a Other Backgrounds – Opinion	.058	1/198	.054	.00	.816	NS

The results of the multiple tests of unique variance accounted for in testing Hypothesis 2b are displayed in Tables 85-88. They determined that for the given population when controlling for all other variables in the model and Type I error build-up, (a) no IVs accounted for a significant amount of unique variance in predicting Scale 1a and 4a; (b) APH accounted for a significant amount of unique variance in predicting Scale 1b ($t = -2.979, p < .003$) and produced a negative regression coefficient; (c) IPD approached a significant amount of unique variance in predicting Scale 1b ($t = 2.651, p < .009$); and (d) IPD accounted for a significant amount of unique variance in predicting Scale 3a ($t = 3.573, p < .001$).

Table 85

Hypothesis 2b: Predictor Variables for Scale 1a (Biased Knowing)

Variables	Full Model		
	<i>b</i>	<i>t</i>	<i>p</i>
(Constant)	3.102	4.457	4.457
TA	.006	.134	.134
SA	.033	.600	.600
IPD	.038	1.096	1.096
AHS	.192	.295	.295
PHS	-.150	-.223	-.223
PSS	-.046	-.067	-.067
ASS	-.243	-.353	-.353
Ten	-.003	-.536	-.536

Note. *p* needed to be significant at .05 level when controlling for Type I error build-up is .006. The descriptions of the variables are provided on p. 10.

Table 86

Hypothesis 2b: Predictor Variables for Scale 1b (Multiple Perspectives)

Variables	Full Model		
	<i>b</i>	<i>t</i>	<i>p</i>
(Constant)	4.918	7.221	.000
TA	.043	1.071	.285
SA	.047	.880	.380
IPD	.090	2.651	.009
AHS	-1.891	-2.979	.003
PHS	-1.323	-2.013	.045
PSS	-1.329	-1.987	.048
ASS	-1.298	-1.929	.055
Ten	-.003	-.634	.527

Note. *p* needed to be significant at .05 level when controlling for Type I error build-up is .006.

Table 87

Hypothesis 2b: Predictor Variables for Scale 3a (Adaptability to Different Situations)

Variables	Full Model		
	<i>b</i>	<i>t</i>	<i>p</i>
(Constant)	3.355	5.232	.000
TA	.001	.035	.972
SA	.047	.927	.355
IPD	.114	3.573	.000
AHS	-.289	-.483	.630
PHS	.148	.239	.812
PSS	.217	.345	.730
ASS	.287	.453	.651
Ten	.001	.289	.773

Note. *p* needed to be significant at .05 level when controlling for Type I error build-up is .006.

Table 88

Hypothesis 2b: Predictor Variables for Scale 4a (Other Backgrounds – Opinion)

Variables	Full Model		
	<i>b</i>	<i>t</i>	<i>p</i>
(Constant)	4.181	7.502	.000
TA	.005	.166	.869
SA	.018	.421	.674
IPD	.044	1.567	.119
AHS	-.698	-1.344	.180
PHS	-.272	-.507	.613
PSS	-.500	-.914	.362
ASS	-.493	-.897	.371
Ten	.001	.233	.816

Note. *p* needed to be significant at .05 level when controlling for Type I error build-up is .006

Hypothesis 2c

Table 89 presents the results of the multiple linear regression analysis for the second modified version of the GPI in testing Hypothesis 2c. The results of the analyses produced evidence to accept Hypotheses 2_{c2} and 2_{c3} at .05 level of significance. It means that for the given population, there is a significant relationship between the scores on Scale 1b (Multiple Perspectives) and Scale 3a (Adaptability to Different Situations) and Intercultural Experience while controlling for the differences in Academic Discipline and the Length of Tenure. The effect size (f^2) for Scale 1b was .07 and Scale 3a was .08 and the relationships were positive.

Subsequently, the results of the analyses produced evidence to reject Hypotheses 2_{c1} and 2_{c4} at .05 level of significance. It means that there was no significant relationship found between the faculty's responses on Scale 1a (Biased Knowing) and Scale 4a (Other Backgrounds – Opinion) and Intercultural Experience while controlling for the differences in Academic Discipline and the Length of Tenure.

Table 89

<i>Hypothesis 2c: Summary of Results of Regression Analysis for the Modified GPI Scales</i>						
Modified Scale	R^2	df_1/df_2	F Change	f^2	p	Significance
1a Biased Knowing	.044	3/199	.698	.00	.554	NS
1b Multiple Perspectives	.130	3/200	4.358	.07	.005	S
3a Personal Values	.116	3/200	5.059	.08	.002	S
4a Other Backgrounds – Opinion	.058	3/198	.015	.02	.367	NS

The results of the multiple tests of unique variance accounted for in testing Hypothesis 2c are displayed in Tables 90-93. They determined that for the given population when controlling for all other variables in the model and Type I error build-up, (a) no IVs accounted for a significant amount of unique variance in predicting Scale 1a and 4a; (b) APH accounted for a significant amount of unique variance in predicting Scale 1b ($t = -2.979, p < .003$) and produced a negative regression coefficient; (c) IPD approached a significant amount of unique variance in predicting Scale 1b ($t = 2.651, p < .009$); and (d) IPD accounted for a significant amount of unique variance in predicting Scale 3a ($t = 3.573, p < .001$).

Table 90

<i>Hypothesis 2c: Predictor Variables for Scale 1a (Biased Knowing)</i>			
Variables	Full Model		
	b	t	p
(Constant)	3.102	4.457	.000
AHS2	.192	.295	.768
PHS2	-.150	-.223	.824
PSS2	-.046	-.067	.946
SS2	-.243	-.353	.724
Ten	-.003	-.536	.592
TA	.006	.134	.893
SA	.033	.600	.549
IPD	.038	1.096	.274

Note. p needed to be significant at .05 level when controlling for Type I error build-up is .006.

Table 91

Hypothesis 2c: Predictor Variables for Scale 1b (Multiple Perspectives)

Variables	Full Model		
	<i>b</i>	<i>t</i>	<i>p</i>
(Constant)	4.918	7.221	.000
AHS	-1.891	-2.979	.003
PHS	-1.323	-2.013	.045
PSS	-1.329	-1.987	.048
ASS	-1.298	-1.929	.055
Ten	-.003	-.634	.527
TA	.043	1.071	.285
SA	.047	.880	.380
IPD	.090	2.651	.009

Note. *p* needed to be significant at .05 level when controlling for Type I error build-up is .006.

Table 92

Hypothesis 2c: Predictor Variables for Scale 3a (Adaptability to Different Situations)

Variables	Full Model		
	<i>b</i>	<i>t</i>	<i>p</i>
(Constant)	3.355	5.232	.000
AHS	-.289	-.483	.630
PHS	.148	.239	.812
PSS	.217	.345	.730
ASS	.287	.453	.651
Ten	.001	.289	.773
TA	.001	.035	.972
SA	.047	.927	.355
IPD	.114	3.573	.000

Note. *p* needed to be significant at .05 level when controlling for Type I error build-up is .006.

Table 93

Hypothesis 2c: Predictor Variables for Scale 4a (Other Backgrounds – Opinion)

Variables	Full Model		
	<i>b</i>	<i>t</i>	<i>p</i>
(Constant)	4.181	7.502	.000
PHS	-.698	-1.344	.180
AHS	-.272	-.507	.613
PSS	-.500	-.914	.362
ASS	-.493	-.897	.371
Ten	.001	.233	.816
TA	.005	.166	.869
SA	.018	.421	.674
IPD	.044	1.567	.119

Note. *p* needed to be significant at .05 level when controlling for Type I error build-up is .006.

Summary

This section starts with findings of multiple regression analyses based on the tests of Hypotheses 1 and 2 of the first modified version of the GPI in Ukrainian. Then post-hoc analyses were conducted to determine the scale reliability of the first modified version of the GPI. The results revealed low internal consistency of the research instrument. To validate the instrument for the population of Ukrainian faculty members, two sets of confirmatory factor analyses were run. The first factor analysis was performed on the whole population sample and then its results were cross-validated with the factor analysis run on half of the sample. In the result of the cross-validation, the emerged stable factors were used to create the second modified version of the GPI. The second modified version of the GPI consisted of (a) two factors that emerged from Scale 1, (b) one factor that consisted of two items of Scale 3, (c) one factor that consisted of three items of Scale 4; and (d) Scale 5 that was unidimensional and did not need any modifications.

The same hypotheses used in testing the relationships between intercultural competence and the IVs of academic discipline, length of tenure, and intercultural experience in the first modified version of the GPI were used to test these relationships for the second modified version of the GPI. In testing Hypothesis 1, multiple regression analyses produced evidence determining a positive significant relationship between Scale 1b (Multiple Perspectives) and Scale 3a (Adaptability to Different Situations) of the second modified version of the GPI and all the IVs simultaneously. All other scales were not supportive of Hypothesis 1. In testing Hypothesis 2, multiple regression analyses provided evidence determining (a) a positive significant relationship between Scale 1b (Multiple Perspectives) and academic discipline of the faculty members independent of all

other IVs and (b) a positive significant relationship between the faculty scores on Scales 1b (Multiple Perspectives) and 3a (Adaptability to Different Situations) and intercultural experience independent of all other IVs in the model. All other scales were not supportive of Hypothesis 2.

CHAPTER V

DISCUSSION

This chapter starts with a summary of the study that includes the problem and purpose of the research, theoretical framework, method, validity and reliability discussion, responses to the research questions and interpretation of the study findings in connection to the existing literature. The chapter then continues with a discussion of the limitations of the study and concludes with implications for practice and recommendations for future research.

Summary of the Study

Intercultural competence serves as an important mediator for effective communication across different cultures. In present conditions of globalization, intercultural competence is important for effective interactions with representatives of different world cultures on professional and individual level (Deardorff, 2011; Krajewski, 2011; Portera, 2011). In Ukrainian society, intercultural competence is also greatly needed as one of the means of assuaging domestic intercultural conflicts and promoting understanding between its pro-Ukrainian and pro-Russian supporters, that aggravated during the events of the Eurorevolution, Russia's occupation of the Crimean peninsula, and militant confrontations in the eastern and southern regions of the country. Lastly, inhabited by over 100 different ethnic and cultural groups, Ukraine is a multicultural society that could benefit from employing the principles of intercultural competence for personal and professional interactions between its residents.

Hence, effective implementation of intercultural competence through intercultural education is desirable for the Ukrainian education system. In particular, higher education

institutions have a strong potential to develop interculturally competent professionals and move the field forward (Council of Europe, 2008). Logically, faculty members need to possess sufficient levels of intercultural competence to instill it in their students (Deardorff, 2011).

The researcher was not able to identify any studies that dealt particularly with quantitative measurement of intercultural competence of Ukrainian faculty members. The purpose of the present study was to establish baseline psychometric estimates of intercultural competence of Ukrainian higher education faculty. The study demonstrated the relationship between the predictor variable of intercultural competence represented by six scales of the Global Perspective Inventory (GPI; Braskamp et al., 2012)—Cognitive-Knowing, Cognitive-Knowledge, Intrapersonal -Identity, Intrapersonal-Affect, Interpersonal-Social Responsibility, Interpersonal-Social Interaction—and criterion variables of (a) academic discipline; (b) intercultural experience, consisting of the length of time spent studying or training, travelling abroad, and the number of hours dedicated to intercultural professional development abroad; and (c) the length of tenure of Ukrainian professors.

Deardorff's (2006, 2011) theory of intercultural competence was used as a theoretical framework for this study. Deardorff's (2006) Process Model of Intercultural Competence indicated that intercultural competence is developmental and moves from individual to interpersonal level. It starts with certain individual attitudes (respect and openness toward other cultures, curiosity and discovery) and moves towards interactive internal and external outcomes by means of the attainment of certain knowledge, comprehension, and skills. The internal outcomes include an informed frame of reference,

shift towards adaptability, flexibility, ethnorelative view and empathy. In this way, the model reflects the continuity of the process of intercultural competence development. Due to its developmental nature, intercultural competence can be improved over time given appropriate intercultural experiences in addition to appropriate curricula (Deardorff, 2011).

The study was conducted in the beginning of 2013/14 academic year in a large public university located in western part of Ukraine. A modified Ukrainian version of the GPI survey consisting of 46 items was distributed to all faculty members. The researcher collected 276 filled out surveys from a total of 933 faculty members.

Validity and Reliability

To increase the likelihood of having higher estimates of internal validity of the research design, the study used an ex post facto research design with hypotheses and tests of alternative hypotheses.

Based on the GPI results in Braskamp et al. (2012), the instrument has acceptable internal scale consistency, very poor or unacceptable to acceptable test-retest reliability, and very poor to acceptable scale discrimination. In addition to the analyses of the GPI in the reviewed literature (e.g., Braskamp et al., 2012; 2013; Merrill et al., 2012), the researcher conducted a set of analyses to determine the estimates of validity and reliability of the GPI for the population of Ukrainian faculty members.

The GPI scale reliability analysis was conducted to measure internal consistency of the scales. The main purpose of this analysis was to determine how well the items in the scale measured the underlying constructs using Cronbach's alpha coefficient. The results of the analysis of the GPI scale reliability for the population of the Ukrainian faculty

determined that all the GPI scales had a low level of internal consistency ranging from .47 to .58. Yet the results of the GPI scale reliability analysis conducted by Braskamp et al. (2012) on the sample of over 5300 undergraduate students in the United States produced higher internal consistency alpha coefficients, ranging from .63 to .75.

The GPI scale correlation analysis determined that most of the scales had satisfactory alpha coefficients, with an exception of three scale combinations—Cognitive-Knowledge/Intrapersonal-Identity, Intrapersonal-Identity/Interpersonal-Social Responsibility, and Interpersonal-Social Responsibility/ Interpersonal –Social Interaction—measuring constructs with 41-51% overlap. In comparison, the findings based on the GPI survey responses of over 42,000 undergraduate students in the United States (Braskamp et al., 2012) determined that the GPI scales were unacceptably highly correlated (overlapped more than 40%) in nine out of fifteen unique scale combinations. These findings determined that the GPI scale discrimination had higher estimates of internal validity for the population of Ukrainian faculty members than for the population of the US undergraduate students. Further analyses are yet needed to determine whether the GPI scale discrimination holds up for a larger sample of Ukrainian professors.

The GPI has neither been previously used to measure intercultural competence, nor given to the population of Ukrainian faculty. To find out if the six scales of the GPI measure the concept of intercultural competence sufficiently, the researcher used a Table of Specifications' (ToS) template developed by Newman, Lim, and Pineda (2013). This procedure determined how well the scales of the GPI aligned with the components of intercultural competence based on feedback of four experts. The experts evaluated how

well the components of intercultural competence outlined in Deardorff (2006) aligned with the GPI scales.

Collectively, the judges indicated that the GPI scales addressed most of the components of intercultural competence, ranging from 16 to 20 components per scale out of 22 components. Based on the judges' feedback on the sufficiency of the GPI scales to measure the IC components, the researcher concluded that (a) no adjustments to Scale 1 to estimate IC were necessary; (b) the sufficiency of Scales 2 and 4 ranged 50-100%; (c) Scales 3 and 6 were somewhat weak in measuring IC ranging 0-100%; and (d) the sufficiency of Scale 5 in measuring IC components ranged 36-100%.

By validating the GPI with the ToS, it appeared that two judges consistently estimated the scales as strongly reflecting the concept of intercultural competence, while the other two judges estimated the scales as a weaker measure of this construct in most of their responses. These judges thought that there were not enough scale items to measure the construct of intercultural competence. Scales 3 and 6 had the most concern by the content area experts. This needs to be considered as a limitation of the GPI as a measure of intercultural competence.

Then the GPI underwent a process of translation and cross-cultural adaptation based on the procedures and recommendations discussed in Weech-Maldonado, Weidmer-Ocampo, Morales, and Hays (2001) and Beaton, Bombardier, Guillemin, and Ferraz (2000). According to these recommendations, the researcher involved a group of experts and non-experts to fulfill designated functions in the specific steps of the translation and cross-cultural adaptation. The process consisted of translation and back-translation of the GPI, review of the instrument's original and back-translated versions, participating in

cognitive interviews, and making revisions and incorporating the feedback into the final Ukrainian version of the instrument.

Empirical and construct validity of the GPI for the population of Ukrainian faculty members was estimated using two sets of confirmatory factor analyses. One set of analyses was run on the sample of all Ukrainian faculty members ($N = 276$) to test if the same factor structure would reproduce for this population. In other words, the hypothesis of unidimensionality of the factor structure of the GPI was tested on the given population. The results of the analysis of the six GPI scales (Scale 1 – Cognitive-Knowing, Scale 2 – Cognitive-Knowledge, Scale 3 – Intrapersonal-Identity, Scale 4 – Intrapersonal-Affect, Scale 5 – Interpersonal-Social Responsibility, and Scale 6 – Interpersonal-Social Interaction) determined that Scales 2 and 5 were stable and unidimensional and did not need any modifications, while Scales 1, 3, 4, and 6 were found to be multidimensional (measuring more than one independent construct). Scale 1 was determined to measure three independent constructs – Biased Knowing, Multiple Perspectives, and Culture – Opinion. Scale 3 was found to measure Adaptability to Different Situations and Philosophy of Life constructs. Scale 4 was found to measure Other Backgrounds – Opinion, Self-Awareness, and Self-Awareness – Action constructs. Scale 6 was found to measure two independent constructs of Cooperation with Other Cultures and Friends' Background.

To determine the stability of the factor structure of this modified version of the GPI, the researcher cross-validated these findings using a confirmatory factor analysis on a randomized sample of 50 % of the total sample size ($N = 138$). It was hypothesized that the factor structure of the modified GPI was stable, meaning that the factor analysis would

produce the same factor structure. Based on the findings, only the stable factors that contained more than one item (statement) comprised the second modified version of the GPI and were used to reanalyze the research hypotheses. Figure 4 demonstrates the comparison of both modified versions of the GPI along with the scale sufficiency based on ToS analysis in measuring intercultural competence.

Figure 4. Comparison of Two Modified Versions of the GPI

As demonstrated in Figure 4, both modified versions of the GPI consisted of six scales each and shared Scale 5 that was found unidimensional and stable as a result of factor analyses and somewhat sufficient to measure intercultural competence based on the

ToS analysis. Scales 1, 3, and 4 of the first modified version of the GPI were found to be multidimensional, and their stable modified versions, Scales 1a, 1b, 3a, and 4a, were used in the second modified version of the GPI to measure intercultural competence of Ukrainian faculty members. Scales 2 and 6 of the first modified version of the GPI were found unstable in the result of factor analyses, with Scale 2 reflecting the concept of intercultural competence somewhat sufficiently and Scale 6 measuring intercultural competence somewhat weakly. In the result, Scales 2 and 6 were eliminated from the second modified version of the GPI.

Respectively, the results of the regression analyses involving the first and second modified versions of the GPI have a number of implications for their interpretation in the light of the limitations of the scales. The results of the analyses involving Scales 3 and 6 of the first modified version of the GPI should be interpreted with caution due to their somewhat weak ability to reflect the concept of intercultural competence. Caution should also be exercised in interpreting the results of regression analyses involving Scales 2 and 6 of the first modified version of the GPI due to their unstable structure as determined by the results of factor analyses.

In comparison to the first modified version of the GPI, the second modified version of the instrument assessed intercultural competence of Ukrainian faculty members more precisely because the instrument was validated using the results of factor analyses based on 100% of the sample and then compared to the results of factor analysis run on randomly selected 50% of the sample. Yet the emerged Scales 1b, 3a, and 4a consisted of only two or three statements and must be further expanded.

Responses to the Research Questions

This section of the study provides interpretation and discussion of findings based on the first and second modified versions of the GPI. It should be noted that the results based on the second modified version of the GPI included four scales—Biased Knowing (Scale 1a), Multiple Perspectives (Scale 1b), Adaptability to Different Situations (Scale 3a), and Other Backgrounds – Opinion (Scale 4a). Also both modified versions of the GPI shared the same Scale 5 (Interpersonal-Social Responsibility) and its analyses and interpretation did not need to be mentioned twice.

Research Question 1

Is there a relationship between the Ukrainian faculty responses on the six scales of the GPI and the following independent variables simultaneously: (a) four groupings of academic discipline, (b) the length of tenure, and (c) intercultural experience (IE)?

In the first modified version of the GPI, regression analyses produced evidence stating that there is a relationship between three out of six scales of intercultural competence of Ukrainian faculty members and the faculty members' academic discipline, length of tenure, and intercultural experience simultaneously. These scales were Cognitive- Knowledge (Scale 2), Intrapersonal – Identity (Scale 3), and Interpersonal – Social Interaction (Scale 6). In essence, the statistical analyses confirmed Hypotheses 1b, 1c, and 1f and rejected Hypotheses 1a, 1d, and 1e, with approaching medium and medium effect sizes.

In the second modified version of the GPI, regressions analyses determined a positive relationship between scales Multiple Perspectives (Scale 1b) and Adaptability to Different Situations (Scale 3a) and all independent variables simultaneously. This finding

confirmed Hypotheses 1b and 1c and rejected Hypotheses 1a and 1d, with effect sizes approaching medium and medium.

These findings present a unique contribution to the research literature due to the fact the researcher was not able to identify any studies that measured the relationship between the concept of intercultural competence and the independent variables of academic discipline, length of tenure, and intercultural experience clustered simultaneously. These findings point to the complexity of the concept of intercultural competence discussed in Deardorff (2006, 2011) by demonstrating that it takes a number of factors simultaneously to contribute to positive gains in the faculty members' level of intercultural competence. Yet these variables are not sufficient to account for positive gains in intercultural competence measured by the GPI scales that produced nonsignificant results.

Research Question 2

Is there a relationship between the faculty responses on the six scales of the GPI and their (a) four groupings of academic discipline, (b) length of tenure, and (c) IE, independent of each other?

Research Question 2a. Is there a relationship between the faculty responses on the six scales of the GPI and their academic discipline, controlling for the length of tenure and IE?

Multiple regression analyses produced evidence to state that there is a positive significant relationship between the faculty scores on Scale 2 (Cognitive- Knowledge) of the first modified version of the GPI and four groupings of academic discipline while controlling for intercultural experience and the length of tenure. The effect size

approached medium. Yet the statistical analyses showed no significant relationship between the Ukrainian faculty responses on Scales 1, 3, 4, 5, and 6 of the GPI and the four groupings of academic discipline while controlling for intercultural experience and the length of tenure.

The results of multiple linear regression analyses for the second modified version of the GPI in testing Hypothesis 2a determined a significant moderate relationship between the scores on Scale 1b (Multiple Perspectives) and four groupings of Academic Discipline while controlling for the length of tenure and intercultural experience. The results for the other scales were nonsignificant.

The faculty members' academic discipline was a positive predictor of their intercultural competence scores on Cognitive-Knowledge (Scale 2 of the first modified version of the GPI) and Multiple Perspectives (Scale 1b of the second modified version of the GPI), when the differences on intercultural experiences and length of tenure were controlled for; whereas, the relationship between academic discipline and other GPI scales in both versions of the instrument was nonsignificant under the same conditions. With a large number of studies emphasizing a need of intercultural competence for all academic disciplines (e.g., Luka, 2012; Yu, 2012; Gourvès-Hayward & Morace, 2010; Bücken & Poutsma, 2010), this study provided evidence to confirm a positive moderate effect of four groupings of academic discipline on two out of six scales of the second modified version of the GPI and one scale of the first modified version of the instrument. A discussion of the differences between four groupings of academic discipline in predicting intercultural competence follows further.

A Role of Four Grouping of Academic Discipline in Predicting Intercultural Competence: Tests of Unique Variance of IVs Controlling for All Other IVs

Tests of unique variance accounted for by the IVs while controlling for all other IVs in Model 1 (used to test Hypothesis 1, Research Question 1) and Model 2 (used to test Hypothesis 2, Research Question 2) for both modified versions of the GPI provided important information on differences between academic discipline groupings in predicting intercultural competence scores of Ukrainian professors. That is, the results of these statistical analyses on the first modified version of the GPI did not determine any significant unique differences between four groupings of academic discipline in predicting intercultural competence. Yet the results based on the second modified version of the GPI revealed that faculty majoring in applied hard sciences received significant negative scores on one out of six scales—Scale 1b (Multiple Perspectives)—in Models 1 and 2. It means that Ukrainian professors of applied hard sciences scored significantly lower on intercultural competence measured by Multiple Perspectives scale than the faculty of other academic disciplines; whereas their academic discipline grouping did not play any role on predicting their intercultural competence scores on the other scales of the GPI. In other words, the professors of applied hard sciences were less sensitive to intercultural competence as measured by Scale 1b - Multiple Perspectives than professors of other academic disciplines.

This finding, however, should be interpreted with caution because the percentage of faculty of applied hard sciences consisted of mainly Computer Science majors and made up only over 4% of the total faculty population. At the same time, it is instructive to note that the majority of professors of applied hard sciences (92%) had received the lowest

amount of intercultural professional development (between 0 and 6 hours) in comparison to the faculty in other academic disciplines. This finding implied that curriculum content of applied hard science disciplines might be missing an intercultural component throughout the length of study and teaching career of the participants.

While the Ministry of Education and individual higher education institutions in Ukraine are working on establishing and maintaining cooperation with higher education institutions of other countries by providing opportunities for Ukrainian faculty and students in different academic fields enrich their knowledge, skills, and intercultural competence abroad (MESU, 2014b; 2014c), these opportunities are still very limited to all willing to participate. As the Ministry of Education reported (2014 a), only 92 faculty members in the country were able to take advantage of training abroad in 2013. The establishment and implementation of domestic intercultural education opportunities for faculty members are also still to be developed. Thus, the finding of this study pointing to largely insignificant differences between the scores on intercultural competence between professors of different academic disciplines in Ukraine may be not only be reflective of the amounts of intercultural experiences they have had but also to the unavailability of appropriate resources and opportunities.

Research Question 2b. Is there a relationship between the faculty responses on the six scales of the GPI and the length of tenure, controlling for the four groupings of academic discipline and IE?

Multiple regression analyses based on the first modified version of the GPI produced evidence to reject Hypotheses 2b1, 2b2, 2b3, 2b4, and 2b5 that stated that there is a relationship between the faculty responses on Scale 1, 2, 3, and 6 of the GPI and the

length of tenure while controlling for four groupings of academic discipline and IE. The analyses also produced evidence to accept Hypothesis 2b6 stating there is a significant relationship between the Ukrainian faculty responses on Scales 6 of the first modified version of the GPI and the length of tenure, controlling for four groupings of academic discipline and IE. While the length of faculty tenure was a positive predictor of intercultural competence scores on Scale 6 (Interpersonal – Social Interactions), the results were significant only for two percent of population ($f^2 = .02$).

Similarly, multiple regression analyses determined that the length of faculty tenure was not a predictor of intercultural competence scores on all scales of the second modified version of the GPI while controlling for four groupings of academic discipline and intercultural experience. In addition, the tests of unique variance accounted for by IVs independent of all other IVs in Models 1 and 2, determined that the length of faculty tenure alone did not predict faculty scores on any of the intercultural competence scales of both modified versions of the GPI.

In other words, the nonsignificant results of both statistical analyses determined that the length of tenure of Ukrainian faculty did not play any role in the development of their intercultural competence. Following Deardorff's (2006) Process Model of Intercultural Development (PMID), intercultural competence is developmental and can be assessed over time; yet the length of the Ukrainian faculty tenure may not have contributed to higher levels of intercultural competence because some of the elements of the process orientation provided in PMID, such as the necessary attitudes or knowledge/ comprehension/ skills and/or positive external/ internal outcomes were missing in the researched population.

The nonsignificant relationship between intercultural competence and the length of faculty tenure may be interpreted from a socio-historical perspective. Ranging from a few days to 55 years, the length of faculty tenure pointed out that some of the professors (at least 20 people with the length of tenure of 25 years or more) received their higher education and taught during the Soviet times, another group of professors received their education fully or partially during the Soviet times and started teaching after Ukraine gained its independence in 1991 (those with 24 years of tenure and less), and the third group experienced their higher education and taught during exclusively during the democratic regime. From this perspective, the findings of this research may point to an implication that the length of tenure of the faculty members with the experiences of study and teaching under different political regimes do not play a role in the development of their intercultural competence.

While the concept of intercultural education in its Western understanding did not exist during the Soviet times, the concepts of multinational or international education were used then to promote the values of equality of all nations and cultural pluralism (Haarman & Holman, 1997; Muradov, 1974; Wolczuk & Yemelianova, 2008). Yet in contrast to the proclaimed equality of all the languages, cultures, and ethnicities as well as the nations' right to self-determination, the Soviet policies fostered authoritarian monoculturalism in form of Sovietization, Russification, and internatsionalizatsiya (Soviet internationalism) of Ukraine that was greatly reflected in curriculum and instruction during that time (Bilinsky, 1981; Haarman & Holman, 1997; Karjaharm, 2006; Kysla, 2009; Rosen, 1971; Tsvetkova, 2008).

In comparison, intercultural education in post-Soviet Ukraine is in the process of formation. The Ministry of Education recognizes and supports intercultural education as a means of promoting understanding between the Ukrainian ethnic majority and minorities living on the territory of the country, foster mutual respect, understanding, and tolerance (MESU, 2011), but its development still needs to be more clearly determined on the level of education policies, curriculum, and individual teaching philosophies and attitudes (Koshmanova & Ravchyna, 2008; Kremen & Nikolajenko, 2006). In essence, the absence of relationship between the scores on intercultural competence and the length of Ukrainian professors' tenure may be looked upon as an aftermath of a skewed representation of interethnic and international values during the Soviet times and novelty and underdevelopment of intercultural education in modern Ukraine.

There is no agreement between international research studies on the relationships between intercultural competence/ sensitivity/ development and the length of teaching experience or age (DeJaeghere & Zhang, 2008; Mahon, 2006; Spinthourakis, Karatzia-Stavlioti, & Roussakis, 2009; Yuen & Grossman, 2009); the reported evidence ranged from significant to nonsignificant, with negative to positive effects. The researcher, however, was not able to identify any similar studies conducted in Ukraine. Hence, this study added to the conflicting evidence brought up by international studies, while providing an important contribution on the nature of these relationships to the research field in Ukraine.

Research Question 2c. Is there a relationship between the faculty responses on the six scales of the GPI and their intercultural experience, controlling for academic discipline and the length of tenure?

Multiple regression analyses based on the first modified version of the GPI produced evidence to accept Hypotheses 2c1, 2c2, 2c3, and 2c6 supporting relationships between the faculty responses on Scales 1 (Cognitive – Knowing), 2 (Cognitive – Knowledge), 3 (Interpersonal – Identity), and 6 (Interpersonal – Social Interaction) and the faculty members' intercultural experience consisting of travel abroad study abroad and intercultural professional development while controlling for four groupings of academic discipline and the length of tenure. All the significant relationships were positive with effect sizes ranging from approaching medium (Scales 1, 3, and 6) to approaching large (Scale 2).

The results of multiple linear regression analyses based on the second modified version of the GPI produced evidence to accept Hypotheses 2_{c2} and 2_{c3} confirming a significant relationship between the intercultural competence scores on Scale 1b (Multiple Perspectives) and 3a (Adaptability to Different Situations) and intercultural experience of the faculty while controlling for academic discipline and the length of tenure. Both relationships were positive and approaching medium effect sizes.

The positive moderate relationships between intercultural competence scores on most of the GPI scales (Scales 1, 1b, 2, 3, 3a, and 6) and intercultural experience, after all the differences between the faculty's academic discipline and their length of tenure were leveled off, pointed to an important role of study/ training abroad, travel abroad, and intercultural professional development in fostering intercultural competence of Ukrainian faculty members. These findings together with the findings of tests of unique variance of IVs of all other IVs will be discussed and compared to the existing research in the next section.

A Role of Intercultural Experience in Predicting Intercultural Competence: Tests of Unique Variance of IVs Controlling for All Other IVs

Research Question 1

The tests of unique variance accounted for by IVs independent of all other IVs in Model 1, determined that intercultural professional development was the only intercultural experience variable that independently of all other IVs accounted for a significant amount of unique variance in positively predicting intercultural competence scores on Scales 2, 3 and 6 of the first modified version of the GPI and Scales 1b and 3a of the second modified version of the GPI. This finding pointed to a unique role of intercultural professional development in fostering intercultural competence of faculty, yet indicating that other intercultural experiences of faculty members – study or training abroad and travel abroad – did not independently contribute to the development of intercultural competence. It can also be inferred that the significant results for intercultural professional development as a predictor of an increase of intercultural competence scores on half of the GPI scales could serve as a confirmation that intercultural competence can be fostered by a deliberate engagement in interculturally focused professional development activities, such as classes, presentations, workshops and other types of learning and/or teaching activities.

Research Question 2

Similarly to Model 1, the tests of unique variance accounted for by the IVs while controlling for all other IVs in Model 2 determined that intercultural professional development positively predicted faculty responses on Scales 2, 3 and 6 (first modified version of the GPI), and 3a (second modified version of the GPI). In addition, the analysis determined that intercultural professional development approached significance in

positively predicting faculty responses on Scale 1b (Multiple Perspectives) of the second modified version of the GPI ($p < .009$, while p needed to be significant at .05 level when controlling for Type I error build-up was .006.). Identical to Model 1, the analysis determined that other components of intercultural experience – study or training abroad and travel abroad – did not independently contribute to the development of intercultural competence.

A large number of empirical and theoretical studies pointed to the importance of different types of intercultural experiences in development of intercultural competence of educators and students (e.g., Kushner and Mahon, 2009; Karnyshev and Kostin, 2009; Spanierman, 2011; Deardorff, 2006). The studies by Gillespie, Braskamp, and Dwyer (2009); Hammer (2004); Marginson and Sawir (2011); Karnyshev and Kostin (2009); Plater, Jones, Bringle, and Clayton (2009) and others that dealt directly with study or training abroad, travel abroad, or professional development reported that all these variables provided good opportunities for the development of intercultural competencies of students, teachers, and other professionals. Thus, the findings of this study indicated (a) positive relationships between intercultural experience predicting an increase on intercultural competence scores on most of the GPI scales independent of academic discipline and the length of tenure and (b) intercultural professional development uniquely predicting the faculty's scores on three out of six scales of both modified versions of the GPI are consistent with the reviewed literature.

Yet other intercultural experiences individually – study/ training abroad and travel abroad – did not predict the faculty's responses on both modified versions of the GPI independent of all other variables and, consequently, did not align with those previously

published studies that showed positive significant relationships between these experiences and intercultural competence. This finding advances the discussion further to the issue of quality of study and training abroad programs as well as their types, purposes, and the length of time as prerequisites for development of intercultural competence (Alred, 2003; Skelly, 2009; Vande Berg & Paige, 2009; Marginson & Sawir, 2011). These important topics, however, are beyond the scope of this study and should be addressed in future studies.

General Discussion of Findings

The current conditions of domestic socio-political conflicts in Ukraine spilling over on the international level are calling for means and measures to assuage the confrontations between pro-Ukrainian/pro-European supporters, on the one hand, and pro-Russian supporters, on the other hand. Political diplomacy equipped with intercultural competence skills could serve as a part of the solution to alleviate the situation and prevent it from occurring in the future. Intercultural competence is an important set of skills and abilities not only for the Ukrainian politicians but also for the general public dealing directly or indirectly with representatives of domestic and/or international cultures. To foster the future generations of interculturally competent citizens, more attention must be paid to intercultural education in Ukrainian education policies and curricula. So far, intercultural education has not been effectively implemented in K-20 curricula in Ukraine and should be added to the list of upcoming education reforms.

This study dealt with establishing a baseline measurement of intercultural competence of higher education faculty dwelling on the premise that the faculty who possess a satisfactory level of intercultural competence and effectively implement

intercultural education would help foster intercultural competence of their students, the future professionals and leaders of the country. The development of psychometric estimates of measurement of intercultural competence in Ukraine is desirable for setting the appropriate professional development milestones and measuring their outcomes.

As determined by the findings of this study, the Global Perspective Inventory can be used to measure intercultural competence of higher education faculty in Ukraine. Both first and second modified version of the GPI can be used for intercultural training purposes, informing the development of intercultural education curricula, and for self-evaluation. To conduct assessments of intercultural competence using the GPI on the nationwide level in Ukraine, better estimates of the scale variability of the instrument based on multiple samples of Ukrainian population would be needed. In this case, the psychometric estimates of both modified versions of the GPI along with the results of the ToS analysis could be used as a baseline for comparisons and further adjustment of the GPI to better reflect the concept of intercultural competence in Ukraine.

This study found that the mean GPI scale scores of Ukrainian faculty members ranged between 3.12 and 4.10 on Likert scale from 1 (strongly disagree) to 5 (strongly agree). In comparison to the American nationwide norms drawn from the results of the GPI surveys taken by over 36,000 undergraduate students in the United States between 2010 and 2013 (Braskamp, 2014), the Ukrainian professors scored lower on all GPI scales but Scale 3 – Intrapersonal-Affect, the results on which were similar to the American nationwide average (Table 94).

Table 94

Comparison of mean GPI scores between the Ukrainian faculty members and American norms

The GPI Scales	Study Mean	Standard Deviation	Norm Mean
1 Cognitive-Knowing	3.30	.48	3.63
2 Cognitive-Knowledge	3.55	.53	3.60
3 Intrapersonal-Identity	4.10	.43	4.09
4 Intrapersonal-Affect	3.44	.37	4.14
5 Interpersonal-Social Responsibility	3.49	.49	3.72
6 Interpersonal-Social Interaction	3.12	.47	3.34

A paired-samples t-test was conducted to evaluate the mean differences on the GPI scores of the researched sample of Ukrainian faculty members and the American norms drawn from Braskamp (2014). The results indicated that the mean GPI scores of the Ukrainian faculty members ($M = 3.50$, $SD = .33$), were lower than the mean norm scores ($M = 3.75$, $SD = .31$), $t(5) = -2.46$, $p < .057$. Yet the difference between the scores was insignificant due to small effect size and did not reach the .05 level of significance. As shown in Figure 5, there was no overlap in the distributions of the mean GPI scores between both groups.

Figure 5. The comparison of mean GPI scores of Ukrainian faculty and American norms

The slightly lower mean scores on intercultural competence achieved by the Ukrainian professors in comparison to the American undergraduate students should be interpreted with a grain of salt. First, for a post-Soviet, formerly closed Ukrainian society there are not nearly as many opportunities for everyday interactions with representatives of various world cultures as in the cultural “melting-pot” American society and the qualities of such intercultural interactions may not be of the similar quality in both countries. Second, the novelty of intercultural topics in Ukrainian education in comparison to the much better developed multicultural and intercultural components in American education may be reflected in the GPI scores. Third, a number of other reasons may be into play that put Ukrainian faculty members in a disadvantaged position in terms of gaining higher levels of intercultural competence, such as their relatively lower socioeconomic standing; insufficient government spending on the development of

intercultural education and promotion of quality intercultural experiences for the faculty members; and some of the remnants of Soviet teaching philosophies and teaching methods present in academia not being compatible with the principles of Western interculturalism. Taking into consideration all these differences between the Ukrainian and American cultures and lifestyles, the new GPI norms should be developed for Ukraine. It would be more appropriate to compare intercultural competence scores of individual faculty members to the national norms in Ukraine.

Limitations

The results of this study cannot be generalized to the population of all Ukrainian faculty members due to the choice of a purposive sample of one university. While random sampling of all Ukrainian higher education institutions could have provided more generalizable results, such task was not possible to carry out due to the inability of the researcher to get an access to such a great number of research sites. Instead, the study can be looked upon as a baseline for future research in intercultural competence using a wider population sample.

The participants were not equally distributed across all the colleges, and two colleges did not participate in the study. One of these colleges, College of Foreign Languages with a total of 46 faculty members, declined participation in the study. The other college, College of Physical Training, had all its 35 faculty members start regular working hours in about one month after the survey had been administered -- and the researcher could not solicit these professors participation due to her limited length of stay in Ukraine. The study was further limited to a number of fully completed surveys. It is

also important to take into consideration that all the research data was self-reported and could not be verified to control for the respondents' bias and socially desirable responses.

The research instrument, the GPI, had some limitations to its reliability and validity in measuring the concept of intercultural competence. Using a Table of Specifications (Newman, Lim, & Pineda, 2013), two out of four content area experts (raters) thought that there were not enough scale items to measure the construct of intercultural competence, with Scales 3 and 6 of the first modified version of the GPI being of the most concern to them. The researcher addressed the issue of validity and reliability of the GPI by taking into consideration the raters' feedback, performing two sets of factor analyses on 100% and 50% of the sample and revising the instrument accordingly. While the second revised version of the GPI underwent a process of cross-validation, three newly emerged Scales 1b, 3a, and 4a consisted of only two or three statements and need to be expanded. Yet due to the scarcity of appropriate research instruments in measuring the concept of intercultural competence, the GPI was chosen as the best existing instrument for the purposes of the study.

The GPI has not been designed to differentiate between the respondents' perspectives on domestic intercultural issues versus their perspectives on international intercultural issues. In Pilot Study II (dealing with cross-cultural adaption of the GPI to reach its linguistic and conceptual equivalence), the researcher found no uniform agreement in the respondents' interpretation of the survey items regarding to which types of intercultural issues, domestic or international, the GPI items referred to. This survey limitation calls for more research to measure domestic and international types of cultural diversity.

Implications for Practice

The development of baseline measurement of intercultural competence of Ukrainian faculty provided in this study has broad implications for practical use at the setting of the study and in Ukraine. The second modified version of the GPI may be used as a research tool for measuring intercultural competence of faculty, teachers, and other professionals and for self-evaluation. The offices in academia that deal with the promotion of intercultural experiences such as study abroad, scholar/ faculty exchanges, professional development, etc. may use the modified version of the GPI as a tool to measure the effectiveness of their programs in fostering intercultural competence.

With the study findings in mind, faculty members, administrators, trainers, consultants, and researchers who intend to increase a level of intercultural competence of their organizations, institutions, or themselves, should keep in mind that they need to consider intercultural professional development, study abroad, travel abroad, academic discipline type, and the length of tenure *simultaneously* as predictors of *some* of the dimensions of intercultural competence. An understanding of the nature of relationships between intercultural competence and intercultural experience (study abroad, travel abroad and intercultural professional development), academic discipline, and the length of tenure can be used to gauge the directions for professional development of Ukrainian faculty, inform intercultural teaching and learning practices, and promote a development of effective intercultural education policies. Faculty, education administration, policy makers, researchers, and other professionals may use the research findings for the purposes of intercultural education planning and professional development.

Recommendations for Future Research

This study broadened the limited knowledge on the nature of intercultural competence of Ukrainian faculty by developing a baseline measurement of intercultural competence. The data on the validation of the GPI as the instrument for measurement of intercultural competence can inform future research studies looking to measure this construct. While the purpose of this study was to establish a baseline of psychometric estimates of intercultural competence for the population of Ukrainian faculty members, future studies on validity and reliability of the GPI are needed to further adjust the survey to the researched population and to the construct of intercultural competence. The cross-validation of the GPI using the Table of Specification (Newman, Lim, & Pineda, 2013) and factor analysis may be used to refine the research instrument to measure more components of intercultural competence (Deardorff, 2006; 2011). It is also important to conduct more studies on the population of Ukrainian faculty members to add more items to the modified scales in the second modified version of the instrument.

Further research is needed to add to the understanding of the nature of intercultural competence in higher education institutions using random sampling. To enable a comparison of individual intercultural competence scores to mean national scores in Ukraine, the GPI national norms should be developed using multiple samples drawn from the Ukrainian population. More research is needed to explore the relationships between intercultural competence of faculty and their students, the presence and efficiency of intercultural professional development, the presence and quality of intercultural education in curricula of all academic disciplines in higher education, and the quality of intercultural

experiences of faculty members as predictors of growth of their intercultural competence, and explore perceptions of faculty members of intercultural education.

More research would be necessary to explore the relationships between the intercultural competence scores of Ukrainian faculty members who studied and worked under different political regimes. This study found no significant differences between the scores on intercultural competence of Ukrainian professors with different length of teaching experience that may be correlated with their different age groups and living under different political regimes in the country. While this study was not specifically targeted to account for the differences between the scores of the faculty members living and working under different political regimes, further research would be needed to take these differences into consideration.

Due to the complexity of the construct of intercultural competence, qualitative studies are needed to inform its quantitative measurement. Comparative and longitudinal studies would be helpful to explore the development of intercultural competence over time, given different types of intercultural experiences, such as study abroad, travel abroad, or intercultural professional development. And finally, more research is needed to determine whether the level of intercultural competence could contribute to the alleviation of intercultural tensions in Ukraine and what intercultural education methods would be the most effective to reach this goal.

Summary

In post-Soviet Ukraine, there is a great need to foster the development of intercultural competence of its population as a means of alleviation of domestic intercultural tensions and fostering intercultural abilities and skills so as to effectively

collaborate with the culturally diverse European Union and other countries. Ukrainian faculty members, in particular, can play an important role in promotion of intercultural values to their students, the future of the country.

With an ultimate purpose of contributing to the promotion of intercultural understanding in Ukraine, this study developed a baseline of psychometric estimates of measurement of intercultural competence of Ukrainian faculty members. The study investigated the relationships between intercultural competence measured by the modified version of the Global Perspective Inventory and intercultural experience (operationally defined by travel abroad, study abroad and intercultural professional development), the length of faculty tenure, and four groupings of academic discipline.

Overall, the intercultural competence scores of Ukrainian faculty members need some improvement. To promote intercultural understanding, Ukrainian faculty members are encouraged to increase their level of intercultural competence by means of quality study/training/ travel abroad experiences and intercultural professional development, notwithstanding their length of teaching experience and academic discipline type.

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APPENDICES

APPENDIX A

The Global Perspective Inventory scales and items

Scale 1 Cognitive-Knowing

- 1. When I notice cultural differences, my culture tends to have the better approach.*
- 6. Some people have a culture and others do not.*
- 7. In different settings what is right and wrong is simple to determine.*
- 18. I take into account different perspectives before drawing conclusions about the world around me.
- 23. I consider different cultural perspectives when evaluating global problems.
- 24. I rely primarily on authorities to determine what is true in the world.*
- 35. I rarely question what I have been taught about the world around me.*

Scale 2 Cognitive-Knowledge

- 8. I am informed of current issues that impact international relations.
- 13. I understand the reasons and causes of conflict among nations of different cultures.
- 19. I understand how various cultures of this world interact socially.
- 25. I know how to analyze the basic characteristics of a culture.
- 32. I can discuss cultural differences from an informed perspective.

Scale 3 Intrapersonal-Identity

- 2. I have a definite purpose in my life.
- 3. I can explain my personal values to people who are different from me.
- 9. I know who I am as a person.
- 14. I am confident that I can take care of myself in a completely new situation.
- 22. I put my beliefs into action by standing up for my principles.
- 33. I am developing a meaningful philosophy of life.

Scale 4 Intrapersonal-Affect

- 10. I feel threatened around people from backgrounds very different from my own.*
- 11. I often get out of my comfort zone to better understand myself.
- 17. I see myself as a global citizen.
- 20. I get offended often by people who do not understand my point-of-view.*
- 26. I am sensitive to those who are discriminated against.
- 27. I do not feel threatened emotionally when presented with multiple perspectives.
- 29. I am accepting of people with different religious and spiritual traditions.
- 36. I constantly need affirmative confirmation about myself from others.*

Scale 5 Interpersonal-Social Responsibility

- 5. I think of my life in terms of giving back to society.
- 16. I work for the rights of others.
- 31. I put the needs of others above my own personal wants.
- 38. I consciously behave in terms of making a difference.
- 40. Volunteering is not an important priority in my life.*

Scale 6 Interpersonal-Social Interaction

- 4. Most of my friends are from my own ethnic background.*
- 15. People from other cultures tell me that I am successful at navigating their cultures.
- 21. I am able to take on various roles as appropriate in different cultural and ethnic settings.
- 28. I prefer to work with people who have different cultural values from me.
- 34. I intentionally involve people from many cultural backgrounds in my life.
- 37. I enjoy when my friends from other cultures teach me about our cultural differences.
- 39. I am open to people who strive to live lives very different from my own life style.

APPENDIX B

A Table of Specifications Template

Scales of GPI Components of Intercultural Competence (IC)*	Scale 1		Scale 2		Scale 3		Scale 4		Scale 5		Scale 6	
	Knowing (cognitive domain)	IC Feed back	Knowledge (cognitive domain)	IC Feedback	Identity (intrapersonal domain)	IC Feed back	Affect (intrapersonal domain)	IC Feed back	Social interaction (interpersonal domain)	IC Feed back	Social responsibility (interpersonal domain)	IC Feed back
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
6												
17												
18												
19												
20												
21												
22												
% to which components of IC estimate each scale												
	Feedback for Scale 1 (column)		Feedback for Scale 2 (column)		Feedback for Scale 3 (column)		Feedback for Scale 4 (column)		Feedback for Scale 5 (column)		Feedback for Scale 6 (column)	

APPENDIX C

The modified English version of the Global Perspective Inventory survey

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. When I notice cultural differences, my culture tends to have the better approach.*					
2. I have a definite purpose in my life.					
3. I can explain my personal values to people who are different from me.					
4. Most of my friends are from my own ethnic background.*					
5. I think of my life in terms of giving back to society.					
6. Some people have a culture and others do not.*					
7. In different settings what is right and wrong is simple to determine.*					
8. I am informed of current issues that impact international relations.					
9. I know who I am as a person.					
10. I feel threatened around people from backgrounds very different from my own.*					
11. I often get out of my comfort zone to better understand myself.					
12. I am willing to defend my own views when they differ from others					
13. I understand the reasons and causes of conflict among nations of different cultures.					
14. I am confident that I can take care of myself in a completely new situation.					
15. People from other cultures tell me that I am successful at navigating their cultures.					
16. I work for the rights of others.					
17. I see myself as a global citizen.					
18. I take into account different perspectives before drawing conclusions about the world around me.					
19. I understand how various cultures of this world interact socially.					
20. I get offended often by people who do not understand my point-of-view.*					
21. I am able to take on various roles as appropriate in different cultural and ethnic settings.					
22. I put my beliefs into action by standing up for my principles.					
23. I consider different cultural perspectives when evaluating global problems.					
24. I rely primarily on authorities to determine what is true in the world.*					

25. I know how to analyze the basic characteristics of a culture.					
26. I am sensitive to those who are discriminated against.					
27. I do not feel threatened emotionally when presented with multiple perspectives.					
28. I prefer to work with people who have different cultural values from me.					
29. I am accepting of people with different religious and spiritual traditions.					
30. Cultural differences make me question what is really true.					
31. I put the needs of others above my own personal wants.					
32. I can discuss cultural differences from an informed perspective.					
33. I am developing a meaningful philosophy of life.					
34. I intentionally involve people from many cultural backgrounds in my life.					
35. I rarely question what I have been taught about the world around me.*					
36. I constantly need affirmative confirmation about myself from others.*					
37. I enjoy when my friends from other cultures teach me about our cultural differences.					
38. I consciously behave in terms of making a difference.					
39. I am open to people who strive to live lives very different from my own life style.					
40. Volunteering is not an important priority in my life.*					

41. Your academic discipline (e.g., physics, English language and literature, software engineering, etc.) _____

42. The overall length of time you taught at higher education institutions: ____ years ____ months.

43. The overall amount of time you spent outside of Ukraine:

- 1) never travelled outside of Ukraine
- 2) up to 1 month
- 3) 1-6 months
- 4) 7-12 months
- 5) 1-3 years
- 6) 4 years and more

44. The overall amount of time you studied/ trained abroad:

- 1) never studied/ trained outside of Ukraine
- 2) up to 1 month
- 3) 1-6 months
- 4) 7-12 months
- 5) 1-3 years
- 6) 4 years and more

45. The overall amount of time dedicated to intercultural professional development, such as attending or presenting at the seminars, courses, presentations, and lectures that dealt with the issues of intercultural education, intercultural relations, etc.:

- 1) never
- 2) 0-6 hours
- 3) 7-20 hours
- 4) 21-40 hours
- 5) over 41 hours.

APPENDIX D

The Ukrainian language version of the GPI survey

	Категорично заперечую (1)	Заперечую (2)	Нейтрально (3)	Погоджуюсь (4)	Цілком погоджуюсь (5)
1. Коли я помічаю різницю між культурами, моя культура зазвичай видається кращою.	1	2	3	4	5
2. Я маю певну ціль в житті.	1	2	3	4	5
3. Я можу пояснити свої особисті цінності людям, які відрізняються від мене.	1	2	3	4	5
4. У мене є друзі іншого етнічного походження.	1	2	3	4	5
5. Я думаю про своє життя з позиції власного внеску для добробуту суспільства.	1	2	3	4	5
6. Одні люди мають культурну приналежність, а інші не мають.	1	2	3	4	5
7. В різних ситуаціях легко визначити, що правильно чи неправильно.	1	2	3	4	5
8. Я розуміюсь в теперішніх проблемах, що впливають на міжнародні стосунки.	1	2	3	4	5
9. Я добре знаю, ким я є.	1	2	3	4	5
10. Я відчуваю загрозу в оточенні людей іншого походження.	1	2	3	4	5
11. Щоб краще себе зрозуміти, я часто вихожу зі своєї зони комфорту.	1	2	3	4	5
12. Я схильний/схильна відстоювати свої власні погляди, коли вони відрізняються від поглядів інших людей.	1	2	3	4	5
13. Я розумію причини і наслідки конфліктів серед націй, що мають різні культури.	1	2	3	4	5
14. Я впевнений/впевнена, що можу подбати про себе у цілком новій ситуації.	1	2	3	4	5
15. Люди іншої культурної приналежності мені говорять, що я успішно адаптуюсь до їхніх культур.	1	2	3	4	5
16. Я докладно зусиль, щоб захистити права інших людей.	1	2	3	4	5
17. Я вважаю себе громадянином/ громадянкою світу.	1	2	3	4	5
18. Я беру до уваги різні точки зору перед тим, як робити висновки про оточуючий світ.	1	2	3	4	5
19. Я розумію соціальну взаємодію різноманітних культур світу.	1	2	3	4	5
20. Люди, які не розуміють мою точку зору, часто викликають у мене негативні емоції.	1	2	3	4	5
21. Я можу взяти на себе виконання різних ролей відповідно до різного культурного і етнічного оточення.	1	2	3	4	5

22. Я відстоюю свої принципи і погляди і втілюю їх в дію.	1	2	3	4	5
23. Оцінюючи глобальні проблеми, я беру до уваги різні культурні особливості.	1	2	3	4	5
24. В основному, я покладаюся на владні структури, щоб визначити правду у світі.	1	2	3	4	5
25. Я знаю, як аналізувати основні характерні особливості культури.	1	2	3	4	5
26. Я проявляю чутливість до тих, кого дискримінують.	1	2	3	4	5
27. Я не відчуваю емоційного напруження, коли мені викладають різні погляди.	1	2	3	4	5
28. Я надаю перевагу роботі з людьми, культурні цінності яких відрізняються від моїх.	1	2	3	4	5
29. Я позитивно сприймаю людей з різних релігійних і духовних традицій.	1	2	3	4	5
30. Різниця між культурами змушує мене ставити під сумнів, що насправді правильно.	1	2	3	4	5
31. Я ставлю потреби інших вище за свої особисті бажання.	1	2	3	4	5
32. Я можу вести дискусії про культурні різниці з проінформованої позиції.	1	2	3	4	5
33. Я працюю над розвитком цілей свого життя.	1	2	3	4	5
34. Я навмисно залучаю людей з різних культур до свого життя.	1	2	3	4	5
35. Я рідко ставлю під сумнів те, чого мене навчили про оточуючий світ.	1	2	3	4	5
36. Мені завжди потрібне позитивне підтвердження від інших людей.	1	2	3	4	5
37. Мені подобається, коли мої друзі іншого культурного походження вчать мене про різницю між нашими культурами.	1	2	3	4	5
38. Я добровільно допомагаю іншим.	1	2	3	4	5
39. Я відкритий/відкрита до людей, спосіб життя яких відрізняється від мого.	1	2	3	4	5
40. Волонтерство не є важливим завданням у моєму житті.	1	2	3	4	5

41. Ваша академічна спеціальність (наприклад, декоративно-прикладне мистецтво, фізика, англійська мова і література, комп'ютерна інженерія тощо)_____.

42. Ваш загальний стаж викладання у вищих навчальних закладах: _____ років _____ місяців.

43. Загальна кількість часу проведена Вами за межами України:

- 1) не бував/ не була за межами України
- 2) до 1 місяця
- 3) 1-6 місяців
- 4) 7-12 місяців
- 5) 1-3 роки
- 6) 4 роки і більше

44. Загальна кількість часу Ви навчались/ стажувались закордоном:

- 1) не навчався/ не навчалась за межами України
- 2) до 1 місяця
- 3) 1-6 місяців
- 4) 7-12 місяців
- 5) 1-3 роки
- 6) 4 роки і більше

45. Загальна кількість часу присвячена професійному розвитку по міжкультурних питаннях, наприклад, відвідання або виступ на семінарах, курсах, презентаціях і лекціях, що мали відношення до міжкультурної освіти, міжкультурних стосунків і т. п.:

- 1) не брав/ не брала участі
- 2) до 6 год.
- 3) 7-20 год.
- 4) 21-40 год.
- 5) 41 год. і більше

46. Ваша стать:

- 1) чоловіча
- 2) жіноча

APPENDIX E

Adult consent to participate in the study, English version

ADULT CONSENT TO PARTICIPATE IN A RESEARCH STUDY

Establishing a Baseline of Measurement of Intercultural Competence of Ukrainian Faculty

PURPOSE OF THE STUDY

You are being asked to be in a research study. The purpose of this study is to establish the baseline of measurement of intercultural competence of Ukrainian faculty members.

NUMBER OF STUDY PARTICIPANTS

If you decide to participate, you will be one of 800 people in this research study.

DURATION OF THE STUDY

Your participation will require 15-20 minutes to fill out a survey.

PROCEDURES

If you agree to be in the study, we will ask you to complete the Global Perspective Inventory survey. The survey consists of 48 items and it should take you no more than 15-20 minutes to complete.

RISKS AND/OR DISCOMFORTS

BENEFITS

There are no direct benefits to you associated with this study. At the same time, **your participation will (a) contribute to the development of measurement of intercultural competence in Ukraine and (b) provide valuable information that can possibly lead to the enhancement of intercultural education research in higher education curricula.**

ALTERNATIVES

There are no known alternatives available to you other than not taking part in this study.

CONFIDENTIALITY

The records of this study will be kept private and will be protected to the fullest extent provided by law. In any sort of report we might publish, we will not include any information that will make it possible to identify a subject. Research records will be stored securely and only the researcher team will have access to the records. However,

your records may be reviewed for audit purposes by authorized University or other agents who will be bound by the same provisions of confidentiality.

COMPENSATION & COSTS

There will be no compensation provided to you for participation in this study.

You will not be responsible for any costs to participate in this study.

RIGHT TO DECLINE OR WITHDRAW

Your participation in this study is voluntary. You are free to participate in the study or withdraw your consent at any time during the study. Your withdrawal or lack of participation will not affect any benefits to which you are otherwise entitled. The investigators reserve the right to remove you from the study without your consent at such time that they feel it is in the best interest.

RESEARCHER CONTACT INFORMATION

If you have any questions about the purpose, procedures, or any other issues relating to this research study you may contact Iryna Dzhuryak at Florida International University, +1(305) 934-7062, idezhu001@fiu.edu.

IRB CONTACT INFORMATION

If you would like to talk with someone about your rights of being a subject in this research study or about ethical issues with this research study, you may contact the FIU Office of Research Integrity by phone at 305-348-2494 or by email at ori@fiu.edu.

PARTICIPANT AGREEMENT

I have read the information in this consent form and agree to participate in this study. I have had a chance to ask any questions I have about this study, and they have been answered for me. I understand that I am entitled to a copy of this form after it has been read and signed.

Signature of Participant

Date

Printed Name of Participant

Signature of Researcher

Date

APPENDIX F

Adult consent to participate in the study, Ukrainian version

ЗГОДА БРАТИ УЧАСТЬ У ДОСЛІДЖЕННІ

“Встановлення бази вимірювання міжкультурної компетенції українських викладачів”

МЕТА ДОСЛІДЖЕННЯ

Вас запрошують до участі в дослідженні. Метою дослідження є встановлення бази вимірювання міжкультурної компетенції українського викладацького штату.

КІЛЬКІСТЬ УЧАСНИКІВ ДОСЛІДЖЕННЯ

Якщо Ви погоджуєтесь брати участь в дослідженні, то будете одним/ одною з 920 учасників.

ТРИВАЛІСТЬ ДОСЛІДЖЕННЯ

Ваша участь в опитуванні займе 15-20 хвилин.

ПРОЦЕДУРА

Якщо Ви погоджуєтесь брати участь в дослідженні, то просимо заповнити нижче вказане опитування, що містить 47 питань. Оцініть їх за шкалою від 1 (категорично заперечую) до 5 (цілком погоджуюсь).

РИЗИК І/ АБО ДИСКОМФОРТ

Ваша участь в дослідженні не принесе ніякого відомого ризику.

КОРИСТЬ

Ваша участь в дослідженні не принесе Вам прямої користі. Одночасно **Ваша участь (а) допоможе розробці бази вимірювання міжкультурної компетенції в Україні і (б) надасть важливу інформацію, що може допомогти розробці навчального курсу з міжкультурної освіти у вищій освіті.**

АЛЬТЕРНАТИВИ

Немає альтернативних способів участі в дослідженні.

КОНФІДЕНЦІЙНІСТЬ

Протоколи цього наукового дослідження не будуть розголошуватись і будуть захищені по всій мірі закону. При опублікуванні будь-якої доповіді, інформація, що може ідентифікувати особу, буде виключена. Дослідницькі протоколи будуть зберігатись у безпечному місці, і тільки дослідницька група буде мати до них доступ. Проте Ваші записи можуть розглядатись з ціллю перевірки авторизованим Університетом чи іншими

агентами, які будуть зв'язані такими самими вимогами конфіденційності.

КОМПЕНСАЦІЯ І ЦІНИ

Ваша участь в дослідженні не буде компенсована. Ви не будете відповідальні за кошти, пов'язані з цим дослідженням.

ПРАВО ВІДМОВИТИСЬ ЧИ ПЕРЕРВАТИ УЧАСТЬ

Ваша участь в дослідженні є добровільною. Ви можете вибрати чи брати участь в опитуванні, чи його перервати в будь-який час. Ваша відмова чи відсутність участі не вплине на будь-які переваги, що можуть Вам належати. Дослідники залишають за собою право виключити Вас з дослідження без Вашої згоди, коли це в їх інтересах.

КОНТАКТНА ІНФОРМАЦІЯ ДОСЛІДНИКА

Якщо у Вас виникли питання про ціль, процедуру чи інші аспекти цього дослідження, звертайтеся до Ірини Джурак в Florida International University за телефоном +1(305) 934-7062 або електронною адресою idzhu001@fiu.edu.

КОНТАКТНА ІНФОРМАЦІЯ IRB

Якщо у Вас є питання про Ваші права як учасника цього дослідження або його етику, звертайтеся в FIU Office of Research Integrity за телефоном +1 (305) 348-2494 або електронною адресою ori@fiu.edu.

ЗГОДА ДО УЧАСТІ

Я прочитав/ прочитала інформацію в цьому документі про згоду на участь в дослідженні. В мене була можливість задати будь-які питання про дослідження і одержати на них відповідь. Я розумію, що в мене є право на копію цієї прочитаної і підписаної угоди.

Підпис учасника

Дата

Ім'я учасника

Підпис дослідника

Дата

VITA

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- 1996-2000 Bachelor of Arts in English Language and Literature
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PUBLICATIONS AND PRESENTATIONS

- Dzhuryak, I. (2012, May). *Establishing intercultural education policies in higher education in Ukraine*. Poster presented at Annual NAFSA conference, Houston, Texas.
- Dzhuryak, I. (2013, March). *Challenges in Ukrainian education stemming from controversial language politics*. Paper presented at Annual CIES conference, New Orleans, Louisiana.
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