

FACULTY INTERNATIONALIZATION PERCEPTIONS SURVEY:
DEVELOPMENT AND VALIDATION.

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of the Requirements for the Degree
Doctor of Philosophy

by
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The undersigned, appointed by the dean of the Graduate School, have examined the
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FACULTY INTERNATIONALIZATION PERCEPTIONS SURVEY:
DEVELOPMENT AND VALIDATION.

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Abstract

The purpose of this study was to develop an assessment instrument for measuring faculty member perceptions of support for internationalization. The instrument was developed through a literature review, examined for content validity by members of Association of International Education Administrators, and analyzed for construct validity through confirmatory factor analysis.

The process and procedures used to develop and validate the Faculty International Perceptions Survey (FIPS) involved a pilot study, the use of a web based application known as Question Understanding AID (QUAID), and an expert review. As a result an initial survey was developed and sent via electronic mail to faculty members in three institutions of higher education, the University of Missouri, (MU), the University of Saskatchewan (USask) and Westminster College (WC). The resulting dataset included n = 512 usable responses with n = 325 from MU, n = 30 from WC, and n = 158 from USask. A confirmatory factor analysis was then conducted to verify that the data fit the hypothesized factors (institutional support, faculty expectations, faculty rewards, and international experience).

The statistical analysis of the data resulted in the removal of 13 psychometric variables and the exclusion of international experience as a factor. However variables associated with factors institutional support, faculty expectations, and faculty rewards, fit very well and resulted in a very strong model with which to measure various aspects of internationalization. Further analysis indicated that these factors when defined as first order factors, loaded very well on a single second order factor which provides a measure of internationalization as a whole. These results are encouraging as they provide institutional leaders and researchers with a tool for understanding how faculty members perceive support for internationalization.

Chapter 1: Introduction

For centuries students and scholars have been crossing international borders. However, "at no time since the Middle Ages has higher education been more international in nature" (Altbach &Teichler, 2001, p. 5). The degree to which higher education has embraced the goals of internationalization is significant, such that the "...international activities of universities dramatically expanded in volume, scope, and complexity in the past two decades" (Altbach & Knight, 2007, p. 290).This expansion accelerated significantly in the wake of the Second World War with the establishment of programs which were meant to connect the peoples of the world during the educational process. For instance, the Fulbright Program, a program run by the U.S. State Department, was designed specifically to "to increase mutual understanding between the people of the United States and the people of other countries" (U.S. State Department, 2014, para. 1) and thus avoid another globally devastating conflict.

As a result of programs like the Fulbright, and the increased mobility of students, the number of international students has increased significantly. More students from other nations are coming to the United States, and more U.S. students are going abroad to study. During this time universities, both international and domestic, have successfully recruited hundreds of thousands of international students to their campuses (Institute of International Education, 2012). These figures are repeated widely by institutions as a way to demonstrate their international credentials. However, there is more to internationalization than just counting international and study abroad students. The world is a changing place and it is the role of the university to prepare students to

enter that world. Furthermore, study abroad programs engage only a small portion of students, about 1.4%, (Institute of International Education, 2012), which means that only a small number of students are actually gaining substantial international experience. By ignoring the changes wrought by globalization, institutions are in essence preparing students to enter a traditional context that simply is not going to be a reflection of reality (Altbach & Lewis, 1996).

Before a discussion on internationalization takes place it is important to define its meaning. Perhaps the most often quoted definition was penned by Jane Knight (2004), who defined internationalization as "the process of integrating an international, intercultural or global dimension into the purpose, functions or delivery of post-secondary education" (p.11). For certain institutions appear to support the goals of internationalization, at least rhetorically. There are many reasons for this support and each institution has its own motivations for doing so. For instance, deWit (2002) points out academic, political, social-cultural, and economic rationales, while Altbach and Knight (2007) highlight profit, access and demand, prestige, economic and political integration, development, and even personal choice as rationales. Interestingly, most of the literature on internationalization focuses on organization level internationalization with little mention of the role of faculty (Sanderson, 2008).

In particular, the definition of internationalization focuses on the delivery of education, a broad construct that includes administration, faculty, and staff. Within context administrators and staff are primarily supporting players to the faculty who actually deliver the education to students. Therefore, faculty members are critical players when it comes to internationalization. However, faculty members also have

significant independence to determine their own priorities, which may or may not include international topics. Regardless, Stohl asserts that, “if we want to internationalize the university, we have to internationalize the faculty” (Stohl, 2007, p. 376); and Biddle concludes that “to the extent that the idea of internationalization...has any reality, faculty must buy into it” (Biddle, 2002, p. 120).

Unfortunately, there are significant barriers that need to be overcome if a faculty member is going to engage in the process of internationalization. These will be discussed in significant detail in Chapter 2; however some examples include lack of administrative support, policies that discourage participation, lack of opportunity, and many more.

Much of the literature that does examine internationalization from a faculty member perspective documents a lack of resources, policies, and an institutional culture that actually discourages faculty members who might otherwise engage in the process (Andresen, 2003). Therefore it is important that senior administrators who have a vested interest in internationalization understand how their efforts to internationalize the campus are received by faculty members. In particular the ability to measure faculty member’s perceptions of the support for internationalization will provide a very useful moment in time metric for understanding faculty member’s perceptions. Furthermore, if given on a scheduled basis, such an instrument could provide longitudinal data so that administrators could understand better how programs focused on internationalization are received.

Research faculty who are interested in studying internationalization will be able to use this instrument to compare faculty international perceptions across countries,

institutions, or even sectors of one institution. Additionally, research within a single institution, when paired with demographic data, could provide information on how faculty members within various subgroups perceive the support for internationalization. Also, if combined with additional instruments, for example a survey on campus climate, it will provide information as to how faculty member's international perceptions are related to diversity as a whole.

Finally, students who are looking for a college home could use the outcomes of this instrument to compare institutions. In particular students would be able to examine the differences between institutional rhetoric, and how faculty members actually perceive the support for internationalization.

Up until now there has not been an instrument that would accurately measure the perceptions of faculty members with respect to institutional support. This research aims to correct this through the development of an instrument that will meet this need.

Purpose and Significance

The purpose of this study was to assess faculty perceptions of the support for internationalization on campus. A self-assessment tool was developed based on an extensive literature review. This quantitative study assessed several factors related to faculty perceptions of internationalization, institutional support for internationalization, institutional expectations with respect to faculty member engagement in internationalization, rewards that faculty members can expect for engaging in internationalization, and the role of international scholars in providing international perspective to the institution. Prior to the creation of the Faculty Internationalization Perceptions Survey (FIPS) there was no reliable instrument to measure faculty

perceptions of internationalization despite the fact that internationalization is a priority across many campuses in the United States and around the world.

The reason that the development of this instrument is important is that faculty members engage with students, both domestic and international, on a frequent basis. Furthermore, faculty members are in a position of authority and can stipulate the nature of interaction between students. This stands in contrast to the interaction between students and administration or staff, which is primarily voluntary and only when and if need arises. Therefore, when introducing students to intercultural contexts, faculty members are uniquely positioned to engage students in an ongoing and authoritative discourse.

Furthermore, the ability to measure faculty member perceptions of internationalization will only become more important as the effects of globalization become more pronounced, resulting in increased need for the internationalization of higher education institutions. To this end the following research questions will serve to direct this research effort:

RQ1: To what extent can a valid and reliable instrument be constructed to measure faculty member perceptions of support for internationalization?

RQ2: To what extent does the instrument display content validity?

RQ3: To what extent does the instrument display construct validity?

RQ4: To what extent does the instrument display internal validity?

Assumptions of the Study

The following five assumptions were made in conducting the study:

First, faculty member perceptions of internationalization can be accurately assessed through the use of a Likert Scale instrument. In fact Likert Scales are used often in psychometric research and have been proven over time. In the case of the FIPS, the scale ranged from 1 to 6 where 1 represented strong disagreement and 6 represented strong agreement.

Second, the subjects used for expert validation of psychometric questions were from a similar, albeit senior, population as the one for which the instrument was developed. Because these experts have significant experience in the international context, and because most are currently faculty members as well as administrators, it is assumed that the resulting survey will exhibit strong content validity.

Limitations of the Study

The results of this study were limited by the following factors:

First, the instrument was developed through the input of experts in the field of international education and validated by higher education faculty members. It may not be a valid tool for measuring other populations.

Second, this study was conducted at two public research intensive institutions, the University of Missouri and the University of Saskatchewan; and Westminster College, a private liberal arts college located in Fulton Missouri. Because of this limited Midwestern sample, the findings may not be applicable to other higher education institutions, either domestically or internationally.

For these reasons it is important to be cautious with the results of this survey as additional validation will need to be conducted to ensure a broader generalizability of results.

Chapter 2: Review of the Literature

Internationalization in higher education has an impact on nearly every stakeholder from the top of the institution, to the bottom. Each stakeholder regardless of their place within the university has a part to play, particularly faculty members who are the primary disseminators of knowledge. Faculty members understanding of their role in the process of internationalization is critical if the institution is going to produce interculturally competent students. Therefore this literature review will cover four areas of interest as they relate to faculty perceptions of internationalization on campus.

First, a review of internationalization as a whole, as well as a more detailed examination of faculty internationalization, will be provided in order to understand the international dimensions of education. Second, intercultural competence, will be discussed as it specifically addresses faculty members obligations to both become interculturally competent, and to address topics of international consequence in their classrooms.

Third, internationalization is one institutional priority among many, and each institution addresses questions of international engagement differently. Therefore a discussion of perceptions and beliefs as they apply to institutional priorities will be undertaken. Additionally, an examination of campus climate and international campus climate literature will provide context in the ways that perception and belief about institutional support and priorities impacts faculty members.

Finally, literature on motivation and incentivization will provide a framework for understanding the reasons faculty members may or may not engage in internationalization. With a strong understanding of these constructs, a more targeted

review of what actually constitutes faculty member perceptions of institutional support will be undertaken in Chapter 3.

Internationalization

Internationalization in higher education is important. Currently, "93 percent of doctoral institutions, 84 percent of master's institutions, 78 percent of baccalaureate institutions, and approximately 50 percent of associate institutions and special focus institutions" are reporting an accelerated internationalization focus (American Council on Education, 2012, p. 6). However, before moving forward with a discussion on internationalization it is important to understand a closely related term, "globalization".

Globalization and internationalization are terms that are often used interchangeably. In fact the terms are so closely linked that the "two act like two connected universes, making it impossible to draw a distinction between them" (Brandenburg & de Wit, 2011, p. 16). But while these terms are closely related, they are also very distinct.

Globalization is defined as "the flow of technology, economy, knowledge, people, values, [and] ideas... across borders. Globalization affects each country in a different way due to a nation's individual history, traditions, culture and priorities" (Knight & deWit, 1997, p. 6). Globalization has also been described as "the economic, political, and societal forces pushing 21st century higher education toward greater international involvement" (Altbach & Knight, 2007, p. 290). The consequences of globalization "...include an explosive growth in the quantity and accessibility of

knowledge and continually increasing integration and interdependence of world financial and economic systems” (Grunzweig & Rineheart, 2002, p.7).

Therefore, while globalization is about the international transformation and interconnectedness, internationalization is the response to that transformation. In this context, “Internationalization includes the policies and practices undertaken by academic systems and institutions—and even individuals—to cope with the global academic environment” (Altbach & Knight, 2007, p. 290).

Over the years internationalization has been characterized in many ways. For instance it has been described as important (Altbach & Lewis, 1996), as a fad (Haas, 1996), or "essentially symbolic" (Bartell, 2003), a “white knight” referring to the focus on “peace and understanding” (Brandenburg & de Wit, 2011). Support for internationalization can be described as a national response (Hayward & Siaya, 2001; Knight, 2004; Stohl, 2007) or an institutional response (Knight, 2004) to globalization. Furthermore, internationalization is a cross disciplinary concept that has been studied from the perspective of national security (Stohl, 2007), business (Calof & Beamish, 1995), science (Ponds, 2009), and higher education (de Wit, 2002; Knight, 1994), the latter being the subject of this research.

Despite the long history of internationalization efforts and research, it remains a fuzzy concept. To some degree this is because notions of internationalization are shaped and reshaped in order to meet the needs of the discipline within which it is being examined (Kehm & Teichler, 2007). For instance, from a business perspective internationalization may be framed as the "process of adapting business operations" (Calof & Beamish, 1995, p. 116) to ever changing international environments. While in

educational circles it may be framed as a means to increase intercultural competence within the student body (Deardorff, 2004). However, even within a single discipline, like higher education, "there is a great deal of confusion about what it means" (Knight, 2004, p. 5).

Notably, variation in the way that internationalization is defined can depend on the particular aspect of the institution, or the subject matter, under examination. For instance, internationalization as it applies to institutional transformation (Childress, 2009) may look very different from internationalization when examining faculty member engagement (Knight, 1994, 2004). However, in recent years scholars have attempted to provide for a general definition that takes into account all of the complexities of internationalization, while understanding that no one definition is appropriate for all situations. Perhaps the most well-known was published by Jane Knight (2004). In her article it is defined as "the process of integrating an international, intercultural or global dimension into the purpose, functions or delivery of post-secondary education" (p.11). This is the definition that will be used throughout the course of this research as it is general enough to capture internationalization as it applies higher education.

Institutional internationalization.

The sources for internationalization policy vary considerably. However, Knight (2004) categorizes them into three basic sources, national, sector, and institutional (Knight, 2004). The national level is broad and can include the involvement of nearly any level of government that are primarily unrelated to education, as well as international non-government organizations (NGO) that are transnational in nature. In

particular, the programs developed as a result of national policies include multiple different government departments aiming to improve student mobility, research, or recruitment programs.

Sector level sources are a subcategory of the national level as they are an aspect of government, but limited to a particular slice. In particular, it includes those branches of government whose primary focus is on education policy. For instance, departments of education, immigration, and foreign affairs would fall into this category.

The institutional level is the source of policy that promotes internationalization at the individual university or college level and results in policies and programs that impact the international characteristics of an institution (Knight, 2004). Each of the sources and sub sources approach internationalization from a particular point of view, and therefore resulting policies can address very different aspects of internationalization.

This study focuses on the institutional level, while recognizing that national and sector levels may have a considerable affect on the institution. To this end the institutional internationalization policies address a particular rationale which is often reflected in the institutions mission and goals.

Rationale for Internationalization.

There are several rationales espoused by institutional leaders for engagement in the international context. These rationales are commonly divided into four broad categories: social/cultural, political, academic, and economic (de Wit, 1995; Knight & de Wit, 1997, 1999). Depending upon ones place in the educational hierarchy, the rationale espoused may be very different. For instance, institutional and business leaders often turn to an economic rationale for internationalization (Andrade, 2006)

citing the need to prepare students to work in a global economic system. Education scholars, on the other hand, often champion academic rationales as a means to strengthen liberal education and enhance the quality of teaching and research (Knight, 1999). However few institutional leaders solely espouse a single rationale. In fact, it is not uncommon for institutional leaders to utilize multiple rationales, or to blur the lines between rationales, in order to justify internationalization efforts (de Wit, 2002).

The institutional rationale is important because it serves as a lens through which various internationalization programs and policies are developed and implemented. For instance, an economic rationale will value the monetization of internationalization and will focus on economic growth or national competitiveness, while a social/cultural rationale, on the other hand, will focus on cultural identity, global citizenship, and intercultural understanding (Knight, 2004). The academic rationale, which faculty members would likely find most fitting, would include the addition of an international dimension to teaching and research, international academic standards, and the extension of the academic horizon (Knight, 2004).

Knight (2004) broadly groups the strategies for internationalization into two categories: program and organization initiatives. Within these categories are the particular strategies that impact the international characteristics of an institution and therefore affect international campus climate. In this context she outlines several approaches to internationalization; activity, outcomes, rationales, process, at home, and abroad. Of particular interest for this research effort is the "at home" approach as it is "interpreted to be the creation of a climate or culture on campus that promotes and

supports international/intercultural understanding..."(Knight, 2004). These concepts will be explored more in the section on campus climate.

Faculty internationalization.

As noted, faculty members play a very important role in the internationalization of the institution. However, most of the research on the topic of internationalization has been directed at organizational internationalization (Sanderson, 2008). This has left a significant gap in the literature with respect to how institutional internationalization impacts faculty members. Despite a paucity of research, some authors have addressed faculty member internationalization. In that context, it is true that the "Overall the academic profession expresses a high degree of commitment to internationalization" (Altbach & Lewis, 1996). However it is not universal as different segments of the academic community may support it at different levels than others. For instance, Altbach and Lewis (1996) also report that teaching oriented faculty members are less inclined to embrace an international perspective than research oriented faculty.

For those faculty members who do engage on an international stage, there are several identified measures of international activity. To some degree, and perhaps the most obvious, is time spent in another country: teaching (Altbach & Lewis, 1996; Finklestein, 2009; Schiefelbein, 1996), conducting research (Altbach & Lewis, 1996; Finklestein, 2009; Postiglione, 1996), or on sabbatical (Altbach & Lewis, 1996, Knight, 2004) as they are strong indicators of an international perspective. Also, it has been shown that the more time faculty engage in international activities, the more internationalized they will become (Finklestein, Walker, & Chen, 2009). Other indicators involved scholarly activities such as time spent reviewing international

publications (Altbach & Lewis, 1996), publishing research in non-native languages (Altbach & Lewis, 1996; Postiglione, 1996), or publishing in another country (Altbach & Lewis, 1996). Also, contacts with international peers are important (Lee, 1996; Postiglione, 1996) as they allow for collaborative research activities (Arimoto, 1996; Knight 2004). Related activities, where international contacts can be made, are membership in international professional organizations (Postiglione, 1996) and attendance at international conferences and seminars (Knight, 2004; Lee, 1996). Other less obvious indicators are terminal degrees from other countries (Sheehan & Welch, 1996) and organizing classes for international students (Altbach & Lewis, 1996).

Despite this long list of activities and opportunities, faculty member engagement in the international context is not easy. Often the institution is rhetorically very supportive of internationalization, but does not provide material support (Engberg & Green, 2002). Notably, in higher education it is not necessarily the top leaders who determine what is important in terms of professional development, as those decisions are made at the departmental or college level (Stohl, 2007). In this context Stohl identifies that reward structures, including salary and tenure, are critical to the importance of internationalization. In other words, if the college “does not value international learning, international research, international research collaboration, international development work, or international service it will not be rewarded” (2007).

As a result when faculty members do engage internationally it is often with their own resources, in concert with their own interests, and without regard for institutional priorities (Saiya & Hayward, 2003). This does not mean that institutions do not provide resources, however even that can be problematic as some administrators see it as a

privilege for faculty members to participate (Dewey & Duff, 2009). The idea that a few “privileged” faculty members should somehow be grateful for an opportunity to engage in what the institution says is important for everyone sends mixed messages. Therefore it is no surprise that, within this environment, international initiatives are often seen by faculty members as additional work with little or no benefit (Lebeau, 2010). These mixed messages and lack of incentives provide faculty members with little or no motivation to participate. However, lack of resources, or resources given begrudgingly, are only a few of the barriers that faculty members face when engaging in the international context.

Barriers to internationalization.

As noted, the primary rationale cited for not engaging in institutional priorities is lack of financing (Engberg & Green, 2002). This is particularly true of internationalization which can be very expensive in terms of travel and overseas work (Dewey & Duff, 2009). Furthermore, the financial constraints felt by many higher education institutions impact the ability to fund new international initiatives. Because of this faculty members characterize internationalization as “yet another undervalued, unfunded initiative” (Bond, 2003, p. 9). However, beyond the financial limitations, several recent studies have examined the significant barriers that exist when it comes to faculty member participation in internationalization (Andreasen, 2003, Childress, 2009, Dewey & Duff, 2009).

Beyond the already cited financial limitations for not engaging in internationalization, there are several other barriers that have been identified including

lack of administrative support (Andreasen, 2003; Dewey & Duff, 2009), policies that discourage untenured faculty from participating (Andreasen, 2003; Stohl, 2007), lack of time (Andreasen, 2003; Dewey & Duff, 2009; Siaya & Hayward, 2003), lack of language skills (Andreasen, 2003), conflict with classes (Andreasen, 2003), lack of opportunity (Andreasen, 2003), leaving current research (Andreasen, 2003), international work not conducive with raising a family (Andreasen, 2003), miss-match between academic calendars (Dewey & Duff, 2009), lack of financial stability (Andreasen, 2003), compliance with additional institutional research board (IRB) requirements (Dewey & Duff, 2009), lack of clarity regarding internationalization initiatives (Friesen, 2012), and finding temporary replacements for faculty members who are traveling abroad (Childress, 2009).

Andreasen also found that the barriers faced by faculty members are “very real and can and do act as deterrents to international participation” (Andreasen, 2003, p. 68). If institutional leaders are serious about getting faculty members to engage internationally, some of these barriers need to be addressed. Some of these barriers can only be addressed through policy changes that can only be altered by institutional leaders, while others can be addressed by faculty members alone. In other words, it is a coordinated effort on the part of all stakeholders interested in advancing the goals of internationalization.

While many faculty members embrace the goals of internationalization, they do so with the expectation that they should not shoulder the burden alone. In particular “faculty rely on the central administration to clearly communicate strategic priorities,

lead strategic development of priority area initiatives and, in particular, provide means and support to the faculty to achieve priority area goals” (Dewey & Duff, 2007, p.501). In particular, administrative leaders through policies and institutional structures encourage faculty members by providing “critical infrastructure, incentives, and communication mechanisms to support faculty in developing international dimensions to their teaching and research” (Childress, 2008, p. 185). One of the international dimensions that is particularly relevant to a faculty member’s professional life is the development of intercultural competence, both within themselves and within their students.

Intercultural Competence

One known outcome of internationalization that is particularly salient to faculty members is intercultural competence (Deardorff, 2006). Historically speaking, intercultural competence has been defined both broadly and narrowly depending on the disciplines of individual scholars. Intercultural competence has been examined from several perspectives including anthropology, psychology, political science, linguistics, organizational behavior, and others (Selmeski, 2007) and each of these specific disciplines fashions the definition to their own context. Furthermore, the language used over the years has not been consistent and has included well known terms like: "intercultural learning" (Andrade, 2006), "intercultural education" (Andrade, 2006), "intercultural communication" (Church, 1982), "Cross-cultural competence" (McCallister & Irvine, 2000; Wang et al., 2012), and "acculturative adjustment" (Wang et al., 2012). However for the purpose of this research the term that will be used is "intercultural competence" (Deardorff, 2006) given its preeminence within the literature.

As noted, the framework for examining intercultural competence has not been completely settled, and continues to undergo revision. However, Deardorff (2006) conducted a well-known study of 23 top intercultural scholars using both a questionnaire and the Delphi technique in an effort to obtain a more precise understanding of the concept. The resulting research avoids specifics, instead providing for a broad understanding of intercultural competence that can be used across many disciplines. The definition that garnered the most support was provided by Byram (1997, p. 34) "Knowledge of others; knowledge of self; skills to interpret and relate; skills to discover and/or to interact; valuing others' values, beliefs, and behaviors; and relativizing one's self. Linguistic competence plays a key role" followed by Lambert's (1994) five components "World knowledge, foreign language proficiency, cultural empathy, approval of foreign people and cultures, ability to practice one's profession in an international setting".

Both definitions provide an important framework for identifying intercultural competence. While most of the literature on intercultural competence focuses on instilling the values and beliefs into the student body, it stands to reason that all stakeholders within the academy could benefit as well (American Council on Education, 2012, p. 3). It also stand to reason that faculty members who are tasked with instilling these intercultural values into their students will have to have within them these same values, or at least the capacity to explain why they are important.

As an extension of internationalization, intercultural competence is, for the most part, an optional activity. Therefore questions arise about why faculty members would want to take on yet another obligation into their busy schedules. Key to this idea is that

faculty members have some sense of what the institutional priorities are. If faculty members perceive that the institution values an internationalized campus with interculturally competent students, it could impact their motivations to engage.

Perception and Belief

Because faculty member perceptions and beliefs are critical to understanding how faculty members understand internationalization, a discussion of the construct of “perception” is warranted. Perception and belief are so closely linked that it is difficult to discuss one without the other. At its most basic level perception is defined as the use of our senses to take in information about our surroundings. Armstrong (1961, p. 105) characterizes perception as “...the acquiring of knowledge of, or, on occasions, the acquiring of an inclination to believe in, particular facts about the physical world, by means of our senses.” As Armstrong suggests in this passage the two concepts are linked, but one does not always follow the other. In fact, in a later work Armstrong explicitly states that

Belief is a dispositional state of mind which endures for a greater or lesser length of time, and that may or may not manifest itself (either in consciousness or in behavior) during that time. But perceptions are definite events that take place at definite instants and are then over. How, then, can perceptions be beliefs? The answer is that perceptions are not beliefs, and so not dispositional states, because they are acquirings of belief. (Armstrong, 1968, p. 214).

To this end Armstrong's basic premise, called traditional foundationalism, is that a perception happens at a moment in time and then vanishes, what lingers then is the inclination to believe or the belief that is formed based on that perception. For instance, if you are sitting at a desk and look at a glass of water and then close your eyes, the perception is gone, but you still believe that there is a glass of water sitting on your desk. If you then open your eyes and you see the same glass you will fortify the previously held belief (Armstrong, 1961, p. 114) instead of creating a new belief. Pitcher (1971) expands on this writing

Even though I already have the belief that there is a dogwood tree outside my window, nevertheless when I now look at it again, the tree (once again) causes that (perceptual) belief. It is a (present) cause of my belief, along with its other (past) causes. (Pitcher, 1971, p. 73)

Critics of Armstrong point to a variety of problems with his theories. For instance the process from perception to belief can be turned on its head. Smith (2001) notes a well-known example of "a seasoned traveller in the desert, who is mistakenly convinced that there is no oasis ahead, may discount the actual appearance of one as a mirage" (p. 287). In this particular case beliefs held strongly enough can lead to a dismissal of evidence to the contrary. In this same context, an individual's life experience can result in what Jackson (1977) refers to as "reserved judgment". In particular Jackson, discussing the Muller-Lyer illusion (Figure 1) wrote

Even if I had not measured the lines, or otherwise determined that the lines were equal, I would not have believed that the top line was longer than the bottom; I would, rather, have reserved judgement. This is not because I am familiar with the Muller-Lyer illusion, but is the result of the fact that it is obvious that the ‘wings’ at the end of the lines are going to have a distorting effect” (Smith, 2001, p. 289).

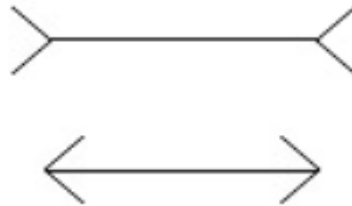


Figure 1. Muller-Lyer Illusion. Example of a distorting effect.

Another theory posits that experience is essential in the transformation of perception to belief (Kant, 1908; Hanson, 1988, p. 294). Therefore, in order to interpret the world around you, you have to possess concepts through which to conduct that interpretation. In other words when I perceive an object, red car, I have to be in possession of the concepts “car” and “red”. These concepts are gained over time through life experience.

Perceptions, Beliefs, and Internationalization.

What then is the role of perception and belief with respect to a concept as amorphous as internationalization? With respect to foundationalism, during a typical day on a university campus, faculty members perceive many different aspects of campus

life. Many of those perceptions are mindlessly dismissed in terms of forming any kind of belief. For instance, a faculty member may be walking the halls and perceptively step around a couple of students speaking Mandarin, as opposed to running into them. No belief is formed based on this one event, however if a faculty member finds herself stepping around a lot of Mandarin speaking students, more than she would normally have to step around, she may form a belief in an attempt to make sense of the situation. However, in terms of complex concepts like internationalization, the foundationalist theory seems to fall short. This is because it lacks a conceptual framework with which to interpret the world. As noted previously with the example of the red car, in order to properly interpret one needs the concepts red and car. The same holds true for more complex concepts like internationalization. Therefore, in order for faculty members' perceptions of internationalization to be properly interpreted, one has to have a concept of "internationalization". However, this may be easier said than done. As noted in the review of internationalization, the definition of internationalization is not universal. In fact, concepts of internationalization can be very different depending on the institution. For instance some institutions may focus primarily on programs like study abroad, while others focus more efforts on international curriculum.

Because there are so many aspects of internationalization, faculty members perceptions and beliefs about it may be incomplete since their conceptual framework is incomplete. For this reason it is important for an institution that expresses a goal of increased internationalization articulate what it is, as well as institutional focus and support. Once established faculty members will have the understanding necessary to form their beliefs and perceptions regarding institutional internationalization. In

particular, research into the perceptions of institutional stakeholders has been widely utilized over the years. One such construct is campus climate.

Campus Climate

Campus climate research is an active area of institutional research (Hart, 2008). However, agreement on what actually constitutes campus climate is not completely settled. Terms like "campus climate", "campus culture", and "campus environment" are often used interchangeably (Cress, 2002, p.390; Rankin & Reason, 2008). Cress differentiates between culture, which she describes as "... viewing the organization from a holistic perspective", and climate, which "focuses on interpersonal interactions" (p. 390). To this end, campus climate can be seen as a result of, or subcategory of, campus culture.

To a degree definitions have varied across studies depending on the topic under examination (Hart & Fellabaum, 2008). For instance, Woodard & Sims (2000) define campus climate as "'students' perceptions of their experiences both in and out classroom" (p.540). This narrow view of campus climate leaves out faculty and staff, two obviously important players. Other authors have provided broad definitions. For example, a particularly well known definition provided by Peterson and Spencer (1990) states that it is, "the current common patterns of important dimensions of organizational life or its members' perceptions of and attitudes toward those dimensions" (p. 7), a definition that may encompass too much. However, it is not the intention of the author to go over the numerous definitions of campus climate, but to point out that there is not agreement on a universal definition. What is important in this

context is that campus climate research focuses heavily on measuring the perceptions of a community.

Interestingly, a review of the campus climate literature indicates the vast majority of research on campus climate is carried out in terms of race or ethnicity (Hurtado, Milem, Clayton-Pedersen, & Walter, 1998; Hurtado, Milem, Clayton-Pederson, & Allen, 1999; Hurtado & Ponjuan, 2005; Chang, Sáenz, & Misa, 2006; Locks, Huratado, Bowman, & Oseguera, 2008). Fewer studies focus on gender issues (Allan & Madden, 2006; Sandler, 1986; Somers et al., 1998). Even fewer have to do with sexual orientation (Waldo, 1998) or are mixed in terms of their subject matter, but focus broadly across race, gender, sexual orientation, and social class (Hart & Fellabaum, 2008; Rankin & Reason, 2005). In this, a significant topic that has been almost completely overlooked is campus climate as it relates to internationalization.

International Campus Climate.

Notably, despite increases in internationalization and the influx of students and faculty from abroad, little research has been carried out with respect to international campus climate. For the purpose of this research, and in light of the lack of a universal definition of international campus climate, the definition will be narrowly tailored to include an examination of the perceptions, attitudes, and expectations that “encourages and fosters the development of international and intercultural values and initiatives” (Knight, 1999, p. 16) that are directly related to institutional support for internationalization efforts.

To gain some understanding what international campus climate is, it is important to understand the institutional characteristics of internationalization. As noted earlier,

Knight identifies program (Table 1) and organizational (Table 2) strategies to achieve internationalization. Of primary interest for this research effort is what she has identified as “at home” approaches to internationalization (AHI). AHI is a way to internationalize institutions that do not participate, or are limited in their participation, in programs beyond their national borders. Also, despite efforts to engage students in study abroad programs, many are simply not mobile enough to seek these opportunities.

The questions that drive AHI have to do with the fact that the vast majority of students in universities do not study abroad, and because of that they do not receive a truly international dimension to their education. According to the Institute of International Education only 283,332, or about 1.4% students enrolled in higher education in the United States have studied abroad in 2011/2012 (Institute of International Education, 2012). On the same report the Institute of International Education reported that the number of undergraduate students who studied abroad during their degree program was only 9.4%. As a result more than 90% of U.S. students never study abroad.

At home internationalization seeks to remedy, in part, this issue by providing an international dimension to the domestic institution. The question therefore is:

How do we give the non-mobile majority of students a better understanding of people from different countries and cultures, increase their knowledge of and respect for other human beings and their way of living and create the global society in a multicultural context?” (Crowther et al., 2000, p. 1)

By answering this question, institutions can determine how best to go about drafting the policies and programs that will include many, but not all, of the characteristics described by Knight in Tables 1 and 2. As a result, institutions that implement programs and policies to uphold the value of international engagement will create an international campus culture, and climate, that institutional members can internalize. Furthermore, through the development of an instrument that will be able to measure faculty internationalization perceptions, institutions will have a means to measure international campus climate from a faculty member's perspective.

Table 1

Knights Institutional-Level Program Strategies

Academic Programs

- Student exchange programs
- Foreign language study
- Internationalized curricula
- Area or thematic studies
- Work/study abroad
- International students
- Teaching/learning process
- Joint/double-degree programs
- Cross-cultural training
- Faculty/staff mobility programs
- Visiting lectures and scholars
- Link between academic programs and other strategies

Governance

- Expressed commitment by senior leaders
- Active involvement of faculty and staff
- Articulated rationale and goals for internationalization
- Recognition of international dimension in institutional mission statements, planning, and policy documents

Domestic and Cross-border

Domestic:

- Community-based partnerships with nongovernment organization groups or public/private sector groups
- Community service and intercultural project work

Cross-border:

- International development assistance projects
- Cross-border delivery of education programs (commercial and noncommercial)
- International linkages, partnerships, and networks
- Contract-based training and research programs and services
- Alumni-abroad programs

(Continued)

Table 1 (Continued)

Services

- Support from institution-wide service units,
i.e., student housing, registration, fund-raising, alumni, information technology)
 - Involvement of academic support units,
i.e., library, teaching and learning, curriculum development, faculty and staff training
 - Student support services for incoming and outgoing students,
i.e., orientation programs, counseling, cross-cultural training, visa advice
-

Source: (Knight, 2004, pp. 14-15)

Table 2

Knights Institutional-Level Organizational Strategies

Research and scholarly collaboration

- Area and theme centres
- Joint research projects
- International conferences and seminars
- Published articles and papers
- International research agreements
- Research exchange programs

Operations

- Integrated into institution-wide and department/college-level planning, budgeting, and quality review systems
- Appropriate organizational structures Systems (formal and informal) for communication, liaison, and coordination
- Balance between centralized and decentralized promotion and management of internationalization
- Adequate financial support and resource allocation systems

Extracurricular

- Student clubs and associations
- International and intercultural campus events
- Liaison with community-based cultural and ethnic groups
- Peer support groups and programs

Human resources

- Recruitment and selection procedures that recognize international expertise
- Reward and promotion policies to reinforce faculty and staff contributions
- Faculty and staff professional development activities
- Support for international assignments and sabbaticals

Source: (Knight, 2004, pp. 14-15)

Motivation

Although the focus of this research is primarily aimed at examining perceptions of faculty members as it applies to support for internationalization, a brief discussion on motivation is warranted because perception and belief can have a strong impact on motivation. To this end, there are many reasons that faculty members do the things they do. Motivation theories cover a wide range of theoretical landscape. However, at the most basic level they are categorized as either intrinsic or extrinsic. Intrinsic motivation refers to “doing something because it is inherently interesting and enjoyable,” while extrinsic motivation refers to “doing something because it leads to a separable outcome” (Ryan & Deci, 2000, p. 54). However, the segmentation between intrinsic and extrinsic motivations is not recognized by all researchers. For instance Operant Theory disregards any segmentation by theorizing that all actions are the subject of some form of reward, even if the reward is the action itself (Skinner, 1953). That said, the overwhelming body of research recognizes that intrinsic and extrinsic motivations are unique (Sansone & Harackiewicz, 2000), a norm that will be recognized in this research.

With regard to the motivations of faculty members to engage in internationalization, these two motivational classifications play out very differently. For those who are intrinsically motivated to engage in internationalization little or no external influence is needed to get them involved as they will do so on their own. However, those faculty members who are not interested require a push or a shove by external interests, in particularly institutional leaders, to get involved. These external influences can take a number of different forms, however Knight (2004) proposes several external motivators including reward systems that lead to professional

advancement, address issues surrounding tenure, or increased compensation. While it is important to point out these two forms of motivation are both relevant to a faculty member's engagement in the international context, the focus of this research will be in extrinsic motivations.

Incentive Theories.

The basic premise of incentive theory is that people will change their behavior in order to earn a reward (Kerr, 1975). For instance, a faculty member who desires to attain tenure will conduct their actions to that end. In this context rewards can take many forms including tangible rewards, like money, gifts, or intangible rewards like recognition or increased job responsibilities (Pattanayak, 2005). The point is that the landscape of what constitutes a reward is vast and can include nearly anything that someone could find of value depending on their needs at the time.

There are several underlying theories that speak to motivations. One of the most prominent is Maslow's Hierarchy of Needs (Maslow, 1943), which describes a hierarchy of needs which he categorizes into five levels. According to Maslow, each level of need must be satisfied, from the bottom to the top, in order. Each level is grouped into particular kinds of needs. The first level is physiological needs, which are met through food, drink, sleep, and so forth. Once physiological needs are met the second level safety needs are pursued. Safety needs include a place to live, a secure job, and health. To this end faculty members, particularly untenured faculty, understand that they do not have a secure job, and that tenure enhances security. Therefore if tenure does not take into account internationalization, then faculty will likely focus on the activities that do, even if they have a desire to engage in the international context.

Love and belonging needs are met through social ties, friendships, and family. In this context a faculty member who is otherwise interested in international topics, but receives no support from peers, would find this need unmet. At the extreme, a faculty member may even forgo their intrinsic interests depending on how much value they place on feeling as if he or she is part of the group.

The fourth level of needs described by Maslow is esteem needs. According to Maslow human beings have a need to be respected. In this faculty members are no different. However, their output in terms of research is one of the things that garners them respect. If the topics that they are engaged in do not receive the respect of their peers, then they will likely abandon them to pursue other topics. In terms of internationalization, if faculty members receive accolades for conducting international research, it will increase the respect they feel.

The last need, self-actualization, is an intrinsically met need that drives someone to fulfill their full potential. Self-actualization needs are very unique to the individual and can include nearly anything. For instance, someone might want to become a world class parent, artist, mechanic, or even an international scholar. The point of all of this is that fulfilled needs are very important to people in general, and faculty members are no exception. If faculty members get the message that the institution supports internationalization, and it will meet their needs primarily in terms of monetary compensation, (Griffin, 2002), but also encompassing other needs like job security, respect, etc... then they will likely engage more completely. Otherwise they will move on to activities and topics that will fulfill those needs.

Another well-known theory of motivation was devised by Herzberg (1959) is the Two-factor Theory, also called Herzberg's motivation-hygiene theory. According to Herzberg, two factors are understood through the concept of satisfaction, or lack thereof. This theory distinguishes between hygiene factors and motivation factors. Within each of these factors satisfaction with ones circumstances plays an important role. For instance, with respect to hygiene factors, they are needed to ensure that a faculty member is not dissatisfied with their work, and even if they are all met they do not result in job satisfaction, just a lack of dissatisfaction. Examples of hygiene factors include status, job security, wages and other related benefits, as well as decent work conditions.

Motivators, on the other hand, result in positive satisfaction. Examples of motivators are challenging work, recognition and promotion. Motivators can have a powerful effect on their performance and focus (Hockenbury & Hockenbury, 2003). In terms of faculty member's engagement in the international context those motivational factors are important. For example, faculty members who receive accolades from the institution or their peers for engaging in the international context, or who are promoted or granted tenure, will experience increased satisfaction.

There are many other models and theories that attempt to explain motivation in a variety of settings. In this regard it was important to describe those institutional dynamics that motivate faculty members to engage in a particular activity. It is not a stretch then to understand that many of these extrinsic factors can be controlled by the institution, or are at least influenced by the institution.

Faculty Motivators.

Although the general models of motivation described above are well known in behavioral sciences, it is also important to understand what motivates faculty members specifically. In many ways the motivations of faculty members are intrinsic. In particular faculty members enjoy the working conditions (Eckert & Williams, 1972; Lindhom, 2004), the ability to focus on a particular subject matter (Eckert & Williams, 1972), and careers that will be intellectually challenging (Eckert & Williams, 1972; Lindhom, 2004). Additionally, faculty members are motivated by the academic freedom the job affords (Lindhom, 2004; McInnis, 2010) and are given a lot of latitude to pursue their own research interests (Blackburn & Lawrence, 1995; McInnis, 2010). Another key motivation for faculty members is the desire to make an impact through their efforts (Pearson, 2011). Additionally, faculty members are motivated when they are working in a supportive collegiate environment (Pearson, 2011).

While intrinsic motivations are important and drive a lot of the faculty member's agenda, "faculty do respond to what they see and believe the organization honors" (Blackburn & Lawrence, 1995, p. 176). In particular rewards structures can make a big impact on faculty member's proclivity to engage in institutional priorities, like research. For instance, an institution that bases their promotion criteria on the "publish or perish" philosophy will result in faculty members who are more prone to prefer research to teaching or service (Blackburn & Lawrence, 1995).

With respect to professional advancement within the academy motivation plays a significant role. For instance, junior faculty members are motivated to pursue tenure as it reinforces two intrinsic desires. First, the desire for a secure job, and second the desire

for academic freedom (AAUP, 2014). Additionally, tenure is also a means by which institutions can capitalize on faculty members intrinsic motivations by tying them to an extrinsic result.

Like tenure policies, promotion policies are important to faculty. In particular the guidelines for promotion will impact the way that faculty members engage their duties. Primarily because faculty members believe that the pursuit of institutional priorities, as expressed through promotion policies, will result in the reward of promotion.

It should also be noted that policies that support a particular activity are not always viewed positively by faculty members. In terms of internationalization faculty members who desire to conduct international research or teaching would likely view policies that take them into consideration as a positive. However, those who have no desire to conduct internationalization research or teaching would view it less positively as they would rather focus on other priorities that are more in line with their intrinsic priorities.

Summary

In the context of the development of an instrument for examining faculty member perceptions of internationalization, each of the constructs mentioned above are essential. In particular, efforts to internationalize an institution will undoubtedly result in policies that promote it. Policies to internationalize the campus impact faculty members in different ways based on their perceptions of institutional support and international campus climate. As a result, if faculty members perceive that significant

support exists, it could impact their motivation to engage. Otherwise they will likely direct their attentions elsewhere.

Up to this point there is no real quantification of what constitutes important measures in terms of faculty perceptions of internationalization. Chapter 3 will explore various aspects of internationalization as they apply to faculty members specifically. Furthermore, it will seek to create an explicit conceptual framework for measuring faculty member's perceptions.

Chapter 3 – Conceptual Framework

Higher education institutions have a multitude of priorities, internationalization is but one among many. However, “University administrators cannot implement a comprehensive internationalization process without coordination with, support of, and participation by the faculty” (Dewey & Duff, 2009, p. 503). Dewey and Duff (2009) also note that, faculty members do not have the capacity, responsibility, or resources to do it on their own. As a result “internationalization requires a delicate balance between centralized and decentralized authority and capacity, as well as individual and institutional spheres of competency and activity” (p. 503). The previous chapter addressed internationalization primarily from an institutional level. However, this chapter will address those aspects of internationalization that more directly impact faculty members. To this end the measure being conceived from this research is not about measuring motivation or participation of faculty members, but measuring their perceptions and beliefs about institutional support as these are precursors to motivation and engagement.

Institutional Support

Administrative leadership is an important element for aligning institutional priorities with internationalization objectives (Bartell, 2003). Within this process institutional leaders are tasked with convincing lower level leaders throughout the institution to be supportive of policy initiatives (O’Reilly, Caldwell, Chatman, Lapid, & Self, 2010). Knight (2004) outlines several different ways that institutional leaders can communicate support for internationalization effectively, including an “expressed commitment by senior leaders”, an “articulation of rationale and goals”, and “recognition

of international dimensions in mission statements, planning, and policy documents” (see Table 1). Other authors have suggested similar options for expressing institutional support. In particular, expressed commitment is an important aspect of support for internationalization (American Council on Education, 2012; Bartell, 2003; Knight, 2004). For the purposes of this research expressed commitment is understood to mean articulation of values by institutional leaders, as well as written support. Additionally, it is important for leaders to effectively articulate rationale and goals (Knight, 2004) for their support of internationalization. As a result faculty members will understand not just the importance of internationalization, but why it is important.

A more formal means of expressed support is through the prominent placement of internationalization content within the mission statement (American Council on Education, 2012; Andreasen, 2003; Knight, 2004). This is important because mission statements provide direction and goals for the institution as a whole. Additional institutional communications, such vision statements, strategic planning documents, and goals statements, provide a more detailed description and justification for the pursuit of internationalization (American Council on Education, 2012) and should be referenced throughout these various documents.

When institutional leaders express a commitment toward a particular policy, programs are developed to meet those priorities. Internationalization is no exception. Therefore support for internationalization would be expected through program initiatives and resource allocation. In this context there are many ways to support faculty members. Knight provides examples in terms of professional development activities specifically, which can include opportunities for training, international teaching, or

research (Knight, 2004), most of which requires significant funding. Therefore tangible support is critical as international activities are expensive compared to similar domestic activities (Altbach & Teichler, 2001).

As can be seen, both rhetorical and tangible support, as expressed through the communications and policies of institutional leaders, are important aspects of engaging faculty members in international activities. However, faculty member's perception of that support also important. In particular faculty members are influenced by institutional direction only so far as they are actually convinced that it is a priority.

Expectations

When a faculty member goes to work at an institution, there are certain expectations that go along with the job. One such expectation is to support the mission and vision of the institution, explained above. Therefore, if the institution sets a priority on enhancing institutional internationalization, and communicates it well, it should result in an internalization of those values within the faculty. In other words, faculty members should feel a sense of professional obligation to engage in international activities (Childress, 2009).

Unfortunately, while it is true that the importance of internationalization on campuses has recently seen significant support at the institutional level, there are questions about how faculty members perceive such a vague priority. For this reason it is important to establish whether or not faculty members actually have a sense that the institution not only finds it important and supports it, but also expects them to contribute to internationalizing the campus; particularly as it applies to the day to day activities that

the faculty members have control over, like classroom practices or their research agendas (Knight, 2004).

Historically, higher education in the U.S. has been very extensively Western oriented (Childress, 2009). One way to include international perspectives into the classroom is to make adjustments to the curriculum (Knight, 2004). However, faculty members control the curriculum and as a result need to be encouraged to make the adjustments necessary to address international topics (Association of American Colleges, 1985). Interestingly, the Association of American Colleges (1985) also notes that while internationalization has received significant attention efforts to actually engage faculty members has remained rare.

Another way that faculty members can enhance internationalization is to engage in international research (Knight, 2004). There are several different ways that a faculty member can engage in international research. In particular involvement in international partnerships (Bartell, 2003; Knight, 2004) academic and business organizations (Ponds, 2009; Trice, 2003); international sabbaticals (Childress, 2008; Knight, 2004), and scholarly collaboration (Childress, 2009; Hudzik, 2001) are identified as ways that faculty members can engage internationally. To the extent that these activities by faculty members are beneficial to the goals of internationalization, international research is, like curriculum, controlled largely by faculty members.

Understanding how faculty members can engage in international activities is important. However, even if the institution supports the goals of internationalization it does not mean that faculty members will feel any professional obligation to engage in

international activities. For those that remain unconvinced additional reasons for engaging may need to be developed.

Rewards

Institutions often have a wealth of opportunities for faculty members to engage in the international context. However, unless one is intrinsically motivated to participate in these opportunities, engagement is not likely. If institutional leaders value internationalization, incentivization can provide a means to encourage and motivate faculty members to engage.

Knight (2004) identifies rewards to faculty as an important strategy for enhancing internationalization. Childress, (2008) goes further in stating that the explicit lack of rewards, in the form of promotion and tenure policies, “hinder the involvement of faculty, particularly junior faculty, in international initiatives” (p. 193).

Rewards are given in recognition of activities that the institutional leaders and colleagues deem important. One way to increase participation in the international context is to address it within tenure and promotion guidelines (American Council on Education, 2012; Childress, 2008; Knight, 2004). Interestingly, Siaya and Hayward (2003) found that only 4% of tenure and promotion policies included international scholarship in tenure and promotion policies.

Tenure and Promotion.

Tenure is a well-known within academic circles. The primary rationale for conferring tenure on faculty members is that of protecting academic freedom. However, tenure also confers a degree of employment security (Brown & Kurland, 1990). As a

result of tenure policies faculty members who do not have tenure, and desire employment security, will seek to achieve tenure. In this context untenured faculty members are well aware of the requirements to achieve tenure, both written and unwritten (Sorcinelli, 1988) and because of this they will work within policy guidelines to enhance their opportunities for tenure. Guidelines, or policies, for tenure therefore outline those things that the intuition values, and excludes those things that the intuition does not value. As an example of this Childress (2008) quoting from faculty members at Duke University noted that:

The lack of an explicit inclusion of international scholarship into Duke's tenure and promotion policies emerged as an organizational practice that hindered the involvement of faculty, particularly junior faculty, in international initiatives (p. 193).

The American Council on Education (2012) echoed this sentiment more broadly in a recent report by noting that:

Given the many demands on junior faculty and the pressure to publish, young professors may feel that pursuing international research collaborations, taking students abroad, or participating in other international activities – all of which take considerable time and effort – are simply too risky in terms of career progress if such activities are not explicitly noted among considerations in the tenure process (p. 15).

To some degree the institutional climate plays a part in the encouragement of internationalization. At institutions that are heavily invested in the international context, an explicit declaration in tenure policies may be unnecessary (Childress, 2008). Regardless, if junior untenured faculty members perceive that the institution values international engagement, then they will be more likely to engage in that context. Therefore, tenure policies and how they are crafted have a powerful role on the academic pursuits of junior faculty.

Although tenure could be viewed as part of the promotion process, academic promotions go beyond tenure with a three step process from Assistant Professor, through Associate, and then Full Professor. Additionally, appointments to positions like Dean could be considered promotions.

Awards.

Awards that enhance professional recognition can also elevate the status of internationalization on a campus (American Council on Education, 2012; Hudzik, 2001; Knight, 2007). In particular an award for engagement international activities, research, or teaching will communicate to faculty members that internationalization is a valued activity worthy of pursuit.

As a package, tenure, promotion, and awards are extrinsic motivators. Rewards function based on the assumption that some behavior, such as engaging in the process of internationalization, will be followed by some benefit.

International Perspectives and Expertise

Institutions that value internationalization also value faculty members with international experience and expertise (Bartell, 2003; Knight, 2004). A significant problem in terms of intercultural competency is that many faculty members simply do not have the background to engage their students in an international context. However, intercultural competency can be learned by faculty members through faculty development programs (Childress, 2009; Knight, 2004). For instance, participation in foreign language learning (Dewey & Duff, 2009; Knight, 2004) or taking advantage of opportunities to engage people of different cultures (Knight, 2004) can go a long way toward becoming interculturally competent. Additionally, engaging in international teaching or research or engaging in particular thematic studies (Knight, 2004) can enhance the internationalization of faculty members.

Notably, at many institutions of higher learning, there are significant opportunities for international engagement. That said, “Faculty need support to build their own capacities where insufficient” (Hudzik, 2001, p. 25) in the form of training. For example, professional development workshops, access to foreign language training, or experience abroad, (Hudzik, 2001) can help faculty members become more experienced.

Another step that can be taken to increase the level international expertise includes the hiring of international scholars of foreign faculty (American Council on Education, 2012; Knight, 2004). In particular, the recruitment of international scholars from other countries “...enhance the international dimensions of teaching and research” (Knight, 2004). Furthermore, the addition of international faculty can provide many

opportunities for domestic faculty to form collaborative partnerships within the institution, which strengthens internationalization throughout the institution.

Summary

As institutions strive to become more international, institutional support, faculty member expectation, rewards, and international expertise are all important contexts in the development internationalization within the faculty. These contexts will be used as a basis for the development of an instrument that can be used to measure faculty perceptions of internationalization.

Chapter 4–Survey Development

Prior the undertaking the creation of a survey instrument a literature review was conducted to determine if there were any instruments designed to measure faculty member perceptions of support for internationalization. Unfortunately no instruments were found to meet this need resulting in the need to design one. To this end a step by step approach to development was adopted with the goal of designing a survey that exhibited content validity. Content validity is “The degree to which elements of an assessment instrument are relevant to and representative of the targeted construct for a particular assessment purpose” (Haynes & Richard, 1995, p. 238).

Worthington and Whitaker (2006) outline several best practices to enhance the content validity of a survey. In particular, the survey’s questions and constructs should be developed based on an examination of the literature (see chapters 2 and 3). Additionally, a pilot study and an expert review can provide feedback that will further enhance the content validity of the survey items. To this end the following steps were taken. First, the initial questions were developed based on the literature. A pilot study of faculty at MU was conducted to gather feedback on the initial questions. Next, a QUAID analysis was conducted. Finally, an expert review was conducted by members of the Association of International Education Administrators.

Initial Questions

The initial psychometric questions created to measure faculty member perceptions of internationalization were formed from an examination of the literature. These questions were initially part of a larger survey, which included classroom behavioral elements that were later dropped.

Based on Knight (2004), the key features of institutional support revolve around the idea that institutions have to communicate their support. In particular faculty members have to know that the institution is supportive and leaders can use a variety of different means to prove they are. In this context Knight provided insight into eight items of the FIPS survey involving institutional support (FIPS1 – FIPS8). Stohl, (2007) echoed Knight's ideas for FIPS7 and FIPS8. While Bartell (2003) adding another aspect of communication suggesting that institutions can say they are supportive, but those expressions of support can also be only symbolic (FIPS9) (see Table 3).

With respect to faculty experience, three authors provided input into this construct. Altbach and Lewis (1996) suggest that expectations are an important aspect of internationalization. In particular to what degree do faculty members get a sense that they are expected to engage in the development of international programs (FIPS10). Knight (2004) identifies expectations of curricular adjustment as important to internationalization. Additionally, Knight (2004) and Stohl (2007) suggest that faculty expectations are important with respect to attending international conferences and conducting international research.

Another construct, faculty rewards, points to specific extrinsic motivators for engaging faculty. In this case Knight (2004) and Stohl (2007) suggest that tenure (FIPS15), promotion (FIPS14), and rewards (FIPS16) play an important part in engaging faculty members in the international context.

An additional construct, international experience, examines the role that international experience plays at the institution. In particular Knight (2004) suggested that recruitment of faculty with international expertise was important (FIPS17) and that

there needs to be adequate opportunity for international scholars to teach and conduct research on campus (FIPS18 and FIPS19). Additionally, Knight also observes that opportunities to conduct international scholarly collaboration are important to the internationalization process (FIPS20).

The resulting survey questions, the construct to which they belong, and their sources in from the literature can be found in Table 3.

Pilot Study

Once the initial questions were established a pilot study was conducted at the University of Missouri. A small sample of 61 randomly selected faculty members were chosen to provide feedback on the question items. The response rate was 35% with several faculty members providing feedback.

As noted previously, the initial survey also had several questions about classroom behaviors and how faculty members coped with international students in their classes. However, as a result of the pilot survey the scope of the research changed. As a result, the behavioral questions were dropped from the survey, and the questions having to do with faculty international perceptions were scrutinized more closely in order to more fully understand the relationship between faculty members and internationalization.

Additionally, several faculty members provided feedback as to their perceptions concerning what really drives internationalization efforts at MU. One theme that was mentioned several times was that internationalization is motivated by financial concerns, in particular that international students, unlike domestic in state students, pay full tuition. One faculty member simply stated that internationalization is “motivated by a single

factor, increasing revenue.” This resulted in an item that was added to the survey at a later stage.

Another faculty member simply noted that phrases like “internationalization” and “International Activity” were terms that could be interpreted very differently. That faculty member suggested that definitions should be provided in order to provide a basic understanding of these concepts.

Table 3*Initial Question Formation*

<u>Const</u>	<u>#</u>	<u>Questions</u>
InstSup	1	Institutional leaders express support for internationalization.(Knight, 2004)
InstSup	2	Institutional mission statements promote internationalization. (Knight, 2004)
InstSup	3	Professional development programs exist to prepare faculty for internationalization. (Knight, 2004)
InstSup	4	Funding for international teaching is available from my institution. (Knight, 2004)
InstSup	5	Funding for international research is available from my institution. (Knight, 2004)
InstSup	6	My institution views participation in international activities favorably. (Knight, 2004)
InstSup	7	My college views participation in international activities favorably. (Knight, 2004; Stohl, 2007)
InstSup	8	My department views participation in international activities favorably. (Knight, 2004; Stohl, 2007)
InstSup	9	At my institution Internationalism is limited and essentially symbolic. (Bartell, 2003)
FacExp	10	Faculty member are expected to aid in the development of international programs. (Altbach & Lewis, 1996)
FacExp	11	Faculty members are expected to develop an international curriculum and include international perspectives in their Course content. (Knight, 2004)
FacExp	12	Faculty members are expected to conduct international research. (Knight, 2004)
FacExp	13	Faculty members are expected to attend international conferences and seminars. (Knight, 2004; Stohl, 2007)
FacRwd	14	Faculty involvement in internationalization is recognized and favorably reviewed with respect to promotions. (Knight, 2004; Stohl, 2007)
FacRwd	15	Faculty involvement in internationalization is recognized and favorably reviewed with respect to tenure. (Knight, 2004; Stohl, 2007)
FacRwd	16	Faculty involvement in internationalization is recognized and favorably reviewed with respect to professional recognition. (Knight, 2004; Stohl, 2007)
IntExp	17	International expertise is part of the recruitment process at my institution. (Knight, 2004)
IntExp	18	There are opportunities for international scholars to teach on my campus. (Knight, 2004)
IntExp	19	There are opportunities for international scholars to conduct research on my campus. (Knight, 2004)
IntExp	20	There are opportunities for international scholars to develop collaborations with faculty on my campus. (Knight, 2004)

Question Understanding Aid (QUAID) Analysis

QUAID is a web based application, housed at the University of Memphis, which is designed to give feedback on questionnaire items. In particular it is designed to assist survey methodologists “who want to improve the wording, syntax, and semantics of questions on a survey” (Graesser, Wiemer-Hastings, Kreuz, Wiemer-Hastings, & Marquis, 2000, p. 254). QUAID was constructed utilizing a cognitive model of human question answering called QUEST (Graesser & Franklin, 1990), which takes into account twelve distinct problem types (Table 4).

QUAID does not operationalize all of the problem types identified in Table 4; however it does operationalize the five most common problem types. As a result, once the user enters the question, the context, and the response, the system evaluates the question for problems and provides the following feedback (Graesser et al., 2000):

- Unfamiliar technical term: The following term may be unfamiliar to some respondents: <unfamiliar technical term>
- Imprecise relative term: The following term refers implicitly to an underlying continuum or scale, but the point or value on the scale is vague or imprecise: <problematic term>
- Vague or ambiguous noun phrase: The referent of the following noun may be vague or ambiguous to the respondent: <problematic term>
- Complex syntax: The question is either ungrammatical or difficult to parse syntactically.

- WM overload: The question imposes a heavy load on the WM of the respondent.

As a result QUAID analysis the initial questions that were developed through the literature review were transformed as documented in Table 5.

Table 4

Problems with Questions

Unfamiliar technical term: There is a word or expression that very few respondents would know the meaning of.

Vague or imprecise predicate or relative term: The values of a predicate (i.e., main verb, adjective, or adverb) are not specified on an underlying continuum.

Vague or ambiguous noun phrase: The referent of a noun phrase, noun, or pronoun is unclear or ambiguous.

Complex syntax: The grammatical composition is embedded, dense, structurally ambiguous, or not well formed syntactically.

Working memory overload: Words, phrases, or clauses impose a high load on immediate memory.

Misleading or incorrect presupposition: The truth value of a pre-supposed proposition is false or inapplicable.

Unclear question category: It is difficult to determine what class of question is being asked.

Amalgamation of more than one question category: The question may be assigned to two or more different classes of questions.

Unclear question purpose: The respondent may not know why the question is being asked.

Mismatch between question category and answer option: The question invites one set of answer options that is different from the question options in the questionnaire.

Difficult to access specific or generic knowledge: A typical respondent would have difficulty recalling the information requested in the question.

Respondent unlikely to know answer: A typical respondent would not know the information requested in the question.

(Graesser, Bommareddy, Swamer, & Golding, 1996)

Table 5

QUAID Analysis

<u>Initial Question</u>	<u>QUAID Feedback</u>	<u>Revised Question</u>	<u>Change Rationale</u>
<p>Please think about the class with the largest enrollment of international students among the classes you teach. What is the frequency of international student enrollment?</p> <p>Original Scale:</p> <p>None 1-5% 6-10% 11-30% 31 % or more</p>	<ul style="list-style-type: none"> • <i>Unfamiliar technical terms: enrollment.</i> • <i>Unfamiliar technical terms: frequency, enrollment</i> • <i>Complex syntax: ungrammatical or difficult to parse syntactically</i> • <i>Vague or imprecise relative terms: Quantification ambiguity: more</i> 	<p>The largest percentage of international students in a class I teach is?</p> <p>Revised Scale</p> <p>None 1-5% 6-10% 11-30% 31-100%</p>	<p>Removal of technical terms and sentence simplification.</p> <p>Modification of the scale to remove quantification ambiguity.</p>
FIPS1. Institutional leaders express support for internationalization	<i>Unfamiliar technical terms: internationalization</i>	Leaders of your institution express support for internationalization.	I have decided to include a definition of the term "internationalization".
FIPS2. Institutional mission statements promote internationalization.	<i>Unfamiliar technical terms: internationalization</i>	No Change	I have decided to include a definition of the term "internationalization".
FIPS3. Professional development programs exist to prepare faculty for internationalization.	<i>Unfamiliar technical terms: internationalization</i>	No Change	I have decided to include a definition of the term "internationalization".
FIPS4. Funding for international teaching is available from my institution.	<i>Looks good</i>	No Change	

(Continued)

Table 5 (Continued)

QUAID Analysis

<u>Initial Question</u>	<u>QUAID Feedback</u>	<u>Revised Question</u>	<u>Change Rationale</u>
FIPS5. Funding for international research is available from my institution.	<i>Looks good</i>	No Change	
FIPS6. My institution views participation in international activities favorably.	<i>Unfamiliar technical terms: favorably Vague or ambiguous noun-phrases: Abstract noun: activities</i>	My Institution encourages participation in international activities.	I have reworded the question to remove the word favorably. To address issues with the term "activities" I will present some contextual examples.
FIPS7. My college views participation in international activities favorably.	<i>Unfamiliar technical terms: favorably Vague or ambiguous noun-phrases: Abstract noun: activities</i>	My college encourages participation in international activities.	I have reworded the question to remove the word favorably. To address issues with the term "activities" I will present some contextual examples.
FIPS8. My department views participation in international activities favorably.	<i>Unfamiliar technical terms: favorably Vague or ambiguous noun-phrases: Abstract noun: activities</i>	My department encourages participation in international activities.	I have reworded the question to remove the word favorably. To address issues with the term "activities" I will present some contextual examples.
FIPS9. At my institution Internationalism is limited and essentially symbolic.	<i>Unfamiliar technical terms: essentially Unfamiliar technical terms: internationalization</i>	At my institution internationalization is symbolic.	I have reworded the question to remove the word "essentially"

(Continued)

Table 5 (Continued)

QUAID Analysis

<u>Initial Question</u>	<u>QUAID Feedback</u>	<u>Revised Question</u>	<u>Change Rationale</u>
FIPS10. Faculty member are expected to aid in the development of international programs.	<i>Looks good</i>	No Change	
FIPS11. Faculty members are expected to develop an international curriculum and include international perspectives in their Course content.	<i>Unfamiliar technical terms: curriculum</i>	No Change	To a faculty member the word "curriculum" should be very familiar.
FIPS12. Faculty members are expected to conduct international research.	<i>Looks good</i>	No Change	
FIPS13. Faculty members are expected to attend international conferences and seminars.	<i>Looks good</i>	No Change	
FIPS14. Faculty involvement in internationalization is recognized and favorably reviewed with respect to promotions.	<i>Unfamiliar technical terms: involvement, internationalization, favorably</i>	Faculty engagement in internationalization enhances opportunities for promotion.	I have changed the wording to remove the words involvement and favorably to include more concise QUAID friendly wording. I have decided to include a definition ¹ of the term "internationalization".

(Continued)

Table 5 (Continued)

QUAID Analysis

<u>Initial Question</u>	<u>QUAID Feedback</u>	<u>Revised Question</u>	<u>Change Rationale</u>
FIPS15. Faculty involvement in internationalization is recognized and favorably reviewed with respect to tenure.	<i>Unfamiliar technical terms: involvement, internationalization, favorably, tenure</i>	Faculty engagement in internationalization enhances opportunities for tenure.	I have changed the wording to remove the words involvement and favorably to include more concise QUAID friendly wording. The word Tenure is well known to faculty members so no changes. I have decided to include a definition of the term "internationalization".
FIPS16. Faculty involvement in internationalization is recognized and favorably reviewed with respect to professional recognition.	<i>Unfamiliar technical terms: involvement, internationalization, favorably</i>	Faculty engagement in internationalization enhances ones professional reputation.	I have changed the wording to remove the words involvement and favorably to include more concise QUAID friendly wording. I have decided to include a definition of the term "internationalization".
FIPS17. International expertise is part of the recruitment process at my institution.	<i>Unfamiliar technical terms: expertise, recruitment</i>	International experience is part of the recruiting process at my institution.	Changed the wording slightly expertise was replaced by experience and recruitment was replaced by recruiting.
FIPS18. There are opportunities for international scholars to teach on my campus.	<i>Vague or imprecise relative terms: Deictic term: There</i>	Opportunities exist for international scholars to teach on my campus.	Changed the wording slightly to remove the Deictic term.

(Continued)

Table 5 (Continued)

QUAID Analysis

<u>Initial Question</u>	<u>QUAID Feedback</u>	<u>Revised Question</u>	<u>Change Rationale</u>
FIPS19. There are opportunities for international scholars to conduct research on my campus.	<i>Vague or imprecise relative terms: Deictic term: There</i>	Opportunities exist for international scholars to conduct research on my campus.	Changed the wording slightly to remove the Deictic term.
FIPS20. There are opportunities for international scholars to develop collaborations with faculty on my campus.	<i>Unfamiliar technical terms: collaborations Vague or imprecise relative terms: Deictic term: There</i>	Opportunities exist for international scholars to develop collaborations with faculty on my campus.	Changed the wording to remove the Deictic term. The term "collaboration" is well known with academia so no change is necessary.
Likert Scale FIPS1-20: <ul style="list-style-type: none"> ▫ Strongly Disagree ▫ Disagree ▫ Slightly Disagree ▫ Slightly Agree ▫ Agree ▫ Strongly Agree 	<i>The following terms refer implicitly to an underlying continuum or scale, but the point or value on the scale is vague or imprecise: Vague verb: Strongly; Vague adverb: Strongly, in sentence 1 in the Answer.</i>	No Change	The word strongly can be vague; however, it is a well-known measure within Likert scales. In fact the University of Connecticut identifies scales with the word "strongly" in the most popular "Agreement measures".

Expert Review

QUAID provides quality feedback (Graesser et al., 2000) that is intended primarily for development of questions within the pretest phase. Additional expert review is necessary to ensure that the questions exhibit content validity. To this end a selection of experts for the subject matter review was needed for further development.

There were several identified experts that could have played a part in the evaluation process, including members of the International Education Association (NAFSA), University of Missouri faculty members who had completed the Global Scholars Program, or the Association of International Education Administrators (AIEA). The faculty members who completed the Global Scholars Program were not selected based primarily on the institution specific nature of their experience and NAFSA members were not selected because of the issues of access. The AIEA was selected because of their unique positions within the institution. In particular, the AIEA was established in 1982 and is comprised of institutional leaders who work to advance the goals of internationalization in higher education (AIEA, 2014). They work to promote internationalization throughout the institution and establish networks of international leaders who can cooperatively engage in the goals of internationalization. They meet the needs of this research primarily because of their deep understanding of internationalization within the higher education context.

In order to gather the feedback of experts the preferred method would have been to sit down with members and discuss the questions through an interview process. However, due to the dispersed nature of these particular experts, most of whom are the heads of international offices and programs at various institutions of higher education all over the world, it was decided to present them with a web based questionnaire that asked them to provide feedback on two issues. First, a statement requiring evaluation was presented along with the question “How do you interpret statement x? Are there any problematic terms?” where “x” was the number of the statement. Second, the question “Do the following responses allow the respondent to adequately answer statement x?”,

followed by a list of responses. If users indicated that the responses were adequate they could continue on to the next question. If not they were prompted with the question “how would you prefer to respond?” to which they were able to enter information in the form of a free form field.

Commonly cited issues had to do with definitions of terms. To address this, terms that were found problematic were defined and placed at the beginning of the survey in order to lay the proper foundation. Additional problems involved questions of institutional structure. For instance some smaller institutions don’t have the same institutional structures as larger ones. As each of these issues was discovered they were addressed (Table 6) along with a rationale for the change.

Once the QUAID adjustments to the survey completed, the resulting survey questions were posted to the listsrv of the AIEA by a member who also happens to be on the researcher’s dissertation committee. Additionally, a request was posted on AIEA LinkedIn page, by the researcher who belongs to that group. After two weeks the survey was closed. 40 experts in the field of internationalization responded to the survey and their responses were analyzed to further enhance the questions for clarity. The changes to the questions are documented in Table 6.

Through this process, the experts identified several changes that could enhance questions on the survey, and also suggested additional questions.

Table 6

Expert “Subject Matter” Analysis

<u>QUAID Questions</u>	<u>Expert Feedback</u>	<u>Revised Question</u>	<u>Change Rationale</u>
FIPS1. Leaders of your institution express support for internationalization	<i>Define Internationalization and International Activates What level of leaders? Symbolic vs tangible support.</i>	Top leaders at my institution express verbal and written support for internationalization.	<p>1. The previous questionnaire had internationalization and international activities defined, but as contextual links. This approach was obviously flawed as the links were not seen by respondents. In response a definitions section was created at the top of the questionnaire that contained all relevant definitions for the survey.</p> <p>2. Respondents were confused about the level of leadership. As I am trying to gage at the institutional level, I identified “Top Leaders”</p> <p>3. I have added “verbal and written” prior to the word support. Information about tangible support is gathered later in the survey.</p>

(Continued)

Table 6 (Continued)

<u>QUAID Questions</u>	<u>Expert Feedback</u>	<u>Revised Question</u>	<u>Change Rationale</u>
FIPS2. Institutional mission statements promote internationalization.	<i>Define Internationalization Does the mission statement have to specifically reference or can a mission statement that outlines an environment where internationalization can thrive work? Vision vs. Mission statement</i>	The institutional mission/vision statement specifically references an international dimension (Keywords include: global, international, world, multinational...)	1. Defined "internationalization". 2. The purpose of a mission statement is to provide broad organizational guidance. While a mission statement can outline a "friendly environment", a specific mention identifies it directly. 3. In this context I changing the wording include the phrase "specifically reference an international dimension" Furthermore, I examined several mission statements for keywords that institutions use to identify international dimension and provided them as examples.
FIPS3. Professional development programs exist to prepare faculty for internationalization.	<i>Define Internationalization The word "exist" is problematic Provide examples of programs</i>	A range of professional development opportunities (workshops, courses, conferences, etc...) are provided to promote faculty internationalization.	1. Defined "internationalization". 2. The word exist is a problem as it provides for only a binary answer, ether it exists or it does not. I have changed the wording to provide more nuance as the goals of the question is to gauge respondent awareness of professional development opportunities. 3. Added examples of professional development opportunities as suggested by the experts..

(Continued)

Table 6 (Continued)

<u>QUAID Questions</u>	<u>Expert Feedback</u>	<u>Revised Question</u>	<u>Change Rationale</u>
FIPS4. Funding for international teaching is available from my institution.	<i>Define International Teaching Qualify funding(significant, adequate)</i>	Adequate Funding for international teaching is available from my institution.	1. Defined "international teaching". 2. Unless the term "funding" is qualified the question is essentially a yes or no answer. Changed the wording to "Adequate funding"
FIPS5. Funding for international research is available from my institution.	<i>Define International Research Qualify the word "Funding"</i>	Adequate funding for international research is available from my institution.	1. Defined "International research". 2. Unless the term "funding" is qualified the question is essentially a yes or no answer. Changed the wording to "Adequate funding"
FIPS6. My Institution encourages participation in international activities.	<i>Define international activities Define Encourages What level within the institution.</i>	Top leaders at my Institution express support for faculty participation in international activities.	1. Defined International Activities 2. Removed the word "encourages" and changed it to "supports". 3. Qualified the level of leaders as "top leaders"
FIPS7. My college encourages participation in international activities.	<i>Define international activities Department and colleges do not apply to many institutions.</i>	My supervisor expresses support for faculty participation in international activities.	1. Defined International Activities 2. Merged FIPS7 and FIPS8 into one question by simply asking about "My Supervisor".
FIPS8. My department encourages participation in international activities.	<i>Department and colleges do not apply to many institutions.</i>	My colleagues expresses support for faculty participation in international activities	1. Change "My department" to "My Colleagues" per expert feedback.
FIPS9. At my institution internationalization is symbolic.	<i>Differentiate between symbolic and "real" support. Symbolic is unclear</i>	Internationalization is mostly symbolic with little or no actual support.	1. Differentiated Symbolic support from "real" support.

(Continued)

Table 6 (Continued)

<u>QUAID Questions</u>	<u>Expert Feedback</u>	<u>Revised Question</u>	<u>Change Rationale</u>
FIPS9. At my institution internationalization is symbolic.	<i>Differentiate between symbolic and “real” support. Symbolic is unclear</i>	Internationalization is mostly symbolic with little or no actual support.	2. Differentiated Symbolic support from “real” support.
FIPS10. Faculty member are expected to aid in the development of international programs.	<i>Define International Programs Aid is a problematic statement.</i>	Faculty members are expected to participate in the development of international programs (e.g. institutional partnerships, international research collaborations, study abroad programs, intercultural organizations).	1. Provided examples of International Programs 2. Changed the word “Aid” to “participate”
FIPS11. Faculty members are expected to develop an international curriculum and include international perspectives in their Course content.	<i>Define International Curriculum Define international perspectives</i>	Faculty members are expected to internationalize their curriculum by infusing international perspectives (e.g. culture, history, policy) into their course content.	1. Curriculum should not be a foreign concept to faculty members. 2. Provided examples of “international perspectives”
FIPS12. Faculty members are expected to conduct international research.	<i>Define International research</i>	Faculty members are expected to conduct international research.	1. Defined International research

(Continued)

Table 6 (Continued)

<u>QUAID Questions</u>	<u>Expert Feedback</u>	<u>Revised Question</u>	<u>Change Rationale</u>
FIPS13. Faculty members are expected to attend international conferences and seminars.	<i>Define International Conference</i>	Faculty members are expected to attend international conferences and seminars (conferences or seminars that significantly focus on international topics and research).	1. Defined international conference.
FIPS14. Faculty engagement in internationalization enhances opportunities for promotion.	<i>No issues</i>	Faculty member engagement in internationalization enhances opportunities for promotion.	1. No changes
FIPS15. Faculty engagement in internationalization enhances opportunities for tenure.	<i>No issues</i>	Faculty member engagement in internationalization enhances opportunities for tenure.	1. No changes
FIPS16. Faculty engagement in internationalization enhances ones professional reputation.	<i>In what context? Professional reputation on campus? Worldwide?</i>	Faculty members who engage in internationalization are granted awards, honors, and other professional recognitions.	1. Defined the context at the start of the survey.

(Continued)

Table 6 (Continued)

<u>QUAID Questions</u>	<u>Expert Feedback</u>	<u>Revised Question</u>	<u>Change Rationale</u>
FIPS17. International experience is part of the recruiting process at my institution.	<i>Past or future experience?</i>	Past international experience (eg. study abroad, teaching abroad, international collaboration, international research, etc...) is a consideration in the recruiting of potential faculty members.	1. Changed the question to identify “past experience”.
FIPS18. Opportunities exist for international scholars to teach on my campus.	<i>Scholars from overseas or scholars who focus on international issues?</i>	My institution actively recruits scholars from other countries for teaching positions.	1. Made it clear that international scholar refers to scholars from other countries.
FIPS19. Opportunities exist for international scholars to conduct research on my campus.	<i>This may not apply to non-research based institutions.</i> <i>Make clear who international scholars are.</i>	Opportunities exist for scholars from other countries to conduct research on my campus.	1. Keeping this question for now. 2. Identified international scholar as scholar from other countries.
FIPS20. Opportunities exist for international scholars to develop collaborations with faculty on my campus.	<i>Make clear who international scholars are.</i>	Opportunities exist for scholars from other countries to develop collaborations with local faculty on my campus.	1. Identified international scholar as scholar from other countries.
FIPS21 -		A large number of international students are a burden on faculty members.	1. New question based on expert Feedback.

(Continued)

Table 6 (Continued)

<u>QUAID Questions</u>	<u>Expert Feedback</u>	<u>Revised Question</u>	<u>Change Rationale</u>
FIPS22 -		Compared to other institutional priorities, internationalization is very important.	1. New question based on expert Feedback.
FIPS23 -		Internationalization is primarily driven by financial concerns.	1. New question based on expert Feedback.
Responses: <ul style="list-style-type: none"> • Strongly Disagree • Disagree • Slightly Disagree • Agree • Strongly Agree 	<i>There should be an "unknown" option.</i>	Revised Responses: <ul style="list-style-type: none"> • Strongly Disagree • Disagree • Slightly Disagree • Agree • Strongly Agree • Do not Know 	1. Added a "do not know" item to the list.

As a result of the expert review twenty-three psychometric questions were included in the final survey (Table 7).

Table 7*Final Psychometric Questions*

<u>QID</u>	<u>Questions</u>
FIPS1	Top leaders at my institution express verbal and written support for internationalization. (Knight, 2004)
FIPS2	The institutional mission/vision statement specifically references an international dimension (Keywords include: global, international, world, multinational...) (Knight, 2004)
FIPS3	A range of professional development opportunities (workshops, courses, conferences, etc...) are provided to promote faculty internationalization. (Knight, 2004)
FIPS4	Adequate Funding for international teaching is available from my institution. (Knight, 2004)
FIPS5	Adequate funding for international research is available from my institution. (Knight, 2004)
FIPS6	Top leaders at my Institution express support for faculty participation in international activities. (Knight, 2004)
FIPS7	My supervisor expresses support for faculty participation in international activities. (Knight, 2004; Stohl, 2007)
FIPS8	My colleagues express support for faculty participation in international activities. (Knight, 2004; Stohl, 2007)
FIPS9	Internationalization is mostly symbolic with little or no actual support. (Bartell, 2003),
FIPS10	Faculty members are expected to participate in the development of international programs (e.g. institutional partnerships, international research collaborations, study abroad programs, intercultural organizations). (Altbach & Lewis, 1996)
FIPS11	Faculty members are expected to internationalize their curriculum by infusing international perspectives (e.g. culture, history, policy) into their course content. (Knight, 2004)
FIPS12	Faculty members are expected to conduct international research. (Knight, 2004)
FIPS13	Faculty members are expected to attend international conferences and seminars (conferences or seminars that significantly focus on international topics and research). (Knight, 2004)
FIPS14	Faculty member engagement in internationalization enhances opportunities for promotion. (Knight, 2004; Stohl, 2007)
FIPS15	Faculty member engagement in internationalization enhances opportunities for tenure. (Knight, 2004; Stohl, 2007)
FIPS16	Faculty members who engage in internationalization are granted awards, honors, and other professional recognitions. (Knight, 2004; Stohl, 2007)

(Continued)

Table 7 (Continued)

<u>QID</u>	<u>Questions</u>
FIPS17	Past international experience (eg. study abroad, teaching abroad, international collaboration, international research, etc...) is a consideration in the recruiting of potential faculty members. (Knight, 2004)
FIPS18	My institution actively recruits scholars from other countries for teaching positions. (Knight, 2004)
FIPS19	Opportunities exist for scholars from other countries to conduct research on my campus. (Knight, 2004)
FIPS20	Opportunities exist for scholars from other countries to develop collaborations with local faculty on my campus. (Knight, 2004)
FIPS21	A large number of international students are a burden on faculty members.
FIPS22	Compared to other institutional priorities, internationalization is very important.
FIPS23	Internationalization is primarily driven by financial concerns.

For each of the twenty-three psychometric questions faculty members will be asked "To what extent do you agree with the following statements with respect to commitment by institutional stakeholders to internationalization efforts at your campus?" The responses to these questions were coded as 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 Agree, and 6 = Strongly Agree. The questions were divided into four groups based on context and literature. These categories were Institutional Support, Faculty Member Expectations, Rewards, and International Perspective.

Summary

Because rigorous validation procedures were followed throughout the process of developing the survey the final psychometric elements were expected to have a high degree of content validity. The resulting theoretical model can be found in Figure 2.

However, before making this assumption that the model will produce a good measure of faculty internationalization perceptions, it is important to examine the construct validity of the survey.

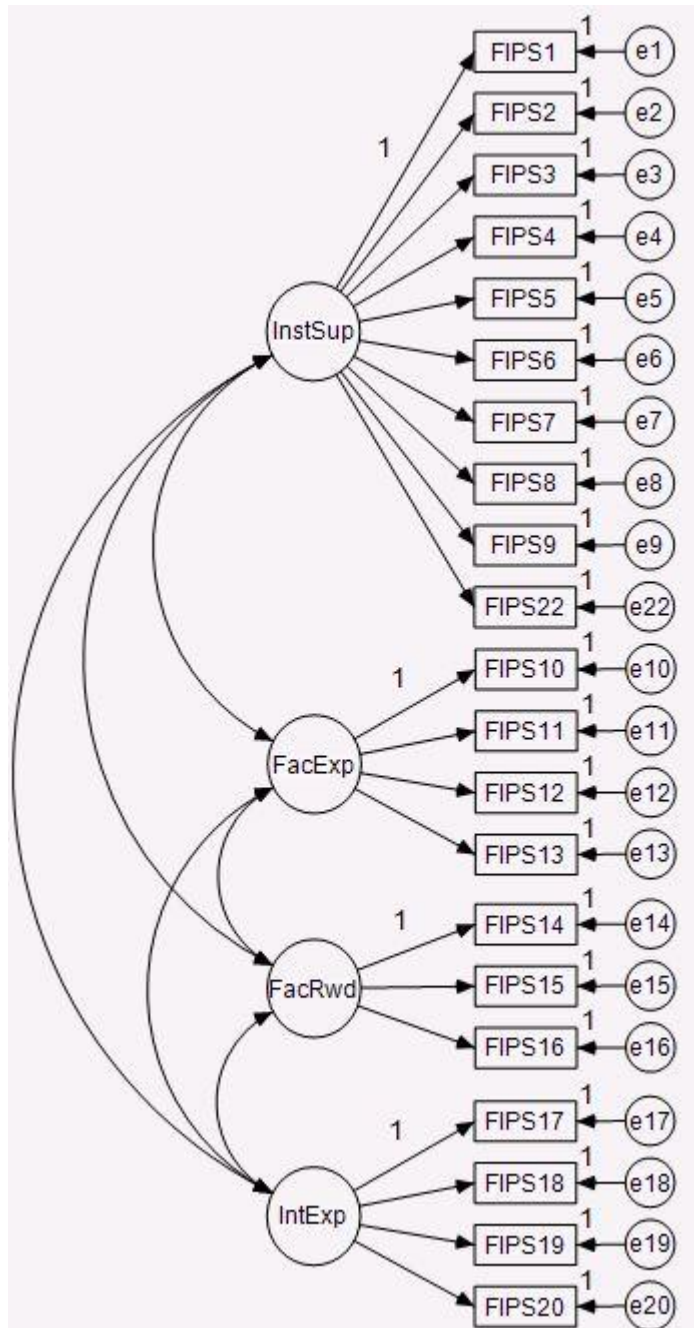


Figure 2. Initial Theoretical Model.

Chapter 5 – Data Collection

Institutions

As noted earlier, three institutions were selected for this research. The institutions were the University of Missouri (MU), the University of Saskatchewan (USask), and Westminster College (WC). MU was selected primarily because the researcher attends the university as a doctoral student and it provided a convenient institution to study. Additionally, MU is a large campus with a large diverse faculty to survey. USask was selected because it was recommended by the researcher's advisor as a way to get a more international sample. Like MU, USask has a large diverse faculty. Finally, WC was selected based on a conversation with the Director of the Center for Engaging the World, a personal friend, who wanted to better understand how the faculty at his institution perceived support for internationalization.

University of Missouri.

The University of Missouri is a large research one university located in Columbia Missouri, a city in the Midwestern United States of America. MU was established by the Missouri Legislature in 1839 as a public institution. As of 2013, MU had a student body of 34,616 students (MU Facts, 2014), of which 7,693 (Fall 2013 Enrollment Summary, 2013) are graduate students. Within this population 2,212 (6.4%) students were international students (Fall 2013 Enrollment Summary, 2013). Additionally, MU is a land grant university which in part defines its purpose. In particular land grant universities are beneficiaries of the Morrill Acts of 1862 and 1890

which directs a focus on agriculture, science, military science, and engineering (Building a Bridge, 2014). This focus does not exclude other programs or internationalization.

In terms of internationalization, MU has a dedicated international center that coordinates a variety of different programs. In particular the center provides support for international students coming to study at the university; domestic students wanting to study abroad; international scholars; and international programs and collaborations meant to promote the goals of internationalization.

One of the key programs for engaging faculty is called Global Scholars. Global Scholars was launched in 1998, and has served over 100 scholars since then. The objectives of the program are to “expand faculty involvement in MU’s strategic international relationships” and “foster tangible new international collaborations for participants, including research grants or papers and/or teaching innovations” (MU Global Scholars Program, 2014). During those years faculty have visited a wide diversity of countries including South Africa, Costa Rica, Panama, China, and India.

As noted previously, a mission statement can provide some indication of priorities. With respect to international content MU’s Mission statement speaks broadly of its “world class” status. In particular it promotes itself as a “world class research university” with “some of the world’s best faculty” with goal to improve the quality of life “around the world” (MU Mission, 2014). While MU may well be a world class university, the degree to which it addresses internationalization in its mission statement shows little evidence of support.

University of Saskatchewan.

The University of Saskatchewan (USask) is a large research university located in Saskatoon Saskatchewan, a city the Canadian Prairie Provinces. USask was established by the Provincial legislature in 1907 as a public institution. As of 2013, USask had a student population of 21,044 (Student Headcount and Demographics, 2014), of which 3,115 were graduate students. Within this population 2,324 (11%) were international students.

Although USask is not a land grant university in terms of the Morrill Acts described above, it is a member of the Association of Public and Land Grant Universities (APLU), as is MU. Notably, the APLU does have a commission called the Commission on International Initiatives that collects information and disseminates them to APLU member leadership in support of internationalization.

Like MU, USask has a dedicated center that supports a variety of different programs. For instance, it provides support for international students coming to Canada to study; domestic students who desire to study abroad, as well as a global connections center. However, it appears more limited than MU with respect to support for international scholars.

A review of the institutions mission statement finds no mention at all of an international context, although it does prioritize that “the cultures and perspectives of Indigenous peoples become core to the fabric of the University” (USask Mission, 2014).

Westminster College.

Westminster College (WC) is a small liberal arts college located in Fulton Missouri, a small town in the Midwestern United States of America. WC was established in 1851 as a private institution with a Presbyterian affiliation. As of 2013, WC had a student population of 1,076 undergraduate students, and no graduate students. Within this population over 160 (15%) were international students (International applications, 2014).

WC has a dedicated center for coordinating international students and study abroad programs. Because of the size of the college the offerings are not as extensive as either MU or USask. However, the notable program that WC has going for it is the Green Lecture Series which has for nearly a century invited world leaders to speak on various international topics. Notable speakers have included British Prime Ministers Sir Winston Churchill and Margaret Thatcher, United States President Ronald Reagan, Soviet President Mikhail Gorbachev and many more distinguished speakers.

Additionally, the National Churchill Museum, which sits beneath a hundreds year old British church, and the Churchill Institute with its Center for Engaging the World provide Westminster College with well-known reputation for international engagement.

With respect to WC's mission statement, it was a surprise given the degree to which the college has been the center of such notable international visitors and programs, to find that the mission statement contained no reference to international engagement or global focus at all. This omission does not appear to negate WC's notable international credentials.

Institutional Review Board Approval Process

Prior to conducting research the Institutional Review Board (IRB), or equivalent office, at each institution was contacted in order to gain permission to conduct research, with MU IRB providing overall direction. Each institution had its own approval process that resulted in very similar surveys with some minor modifications. For instance, the invitation to take the survey was slightly different with respect to contact information and limitations.

Initially, users were going to be informed that the responses to the survey were confidential, meaning that their personal contact information (an email address) was collected but would not be shared. It should be noted that the only reason for collecting the email addresses of the survey recipients was in order to contact them in case they won the drawing for one of two gift cards. As a result, the IRB at the University of Missouri determined that the information gathered by the survey could be harmful to anyone who answered it and requested that the survey be made anonymous with an additional unrelated survey which would be used to collect contact information from faculty members.

Data was collected through a web based research instrument which was sent faculty members at each institution, in September of 2013. The survey was available for fifteen days at each institution. During that time four follow-up requests were sent out to faculty members at MU and USask, and two reminders for WC based on requests from each school's institutional research board. In order to increase response rates further a lottery was held for a chance to win one of two fifty dollar gift cards to Amazon.com.

Participants

The participants identified for this study were all faculty members at each of the three institutions being examined. The contact information for the faculty was collected from publically available contact information which is published the each institution's website. As a result a total of 3,535 faculty members were sent invitations to take the survey. These were broken down as follows: 2,149 invitations were sent to MU faculty, 1,287 were sent to USask faculty, and 99 were sent to WC faculty. All participants were informed that their participation was voluntary, and if they did choose to take the survey they were given the opportunity to enter a raffle to win one of two US \$50 gift certificates to Amazon.com.

Demographics Characteristics of Participants.

With respect to demographics, the majority of participants identified themselves as Male (53.8%) followed by Female (44.9%). Institutional data on gender was slightly out of line with participation rates as males comprising 63% of the academic population and females make up 36%. As a result males may be underrepresented by nearly 10%.

The average participant ages ranged from 24 to 89 with a mean age of 50.95 and a standard deviation of 11.88. The racial makeup of participants were: White (75.4%); Black (3.1%); Hispanic (1.8%); Asian (8.4%), Indigenous (.4%), with (8.9%) reporting Other, Mixed, or missing/preferred not to answer. Furthermore, institutional data regarding faculty member age ranges and racial makeup was incomplete and therefore representation analytics were unavailable. A detailed exploration of the demographics of faculty members across institutions can be found in Table 8.

Table 8*Demographic Data Summary*

	<u>MU</u>		<u>USask</u>		<u>WC</u>		<u>Total</u>	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Gender								
Male	175	53.8%	81	51.3%	16	53.3%	272	53.0%
Female	146	44.9%	70	44.3%	13	43.3%	229	44.6%
Missing	4	1.2%	7	4.4%	1	3.3%	12	
Race								
White	245	75.4%	115	72.8%	26	86.7%	386	75.4%
Black	14	4.3%	2	1.3%	0	0.0%	16	3.1%
Hispanic	7	2.2%	1	.6%	1	3.3%	9	1.8%
Asian	27	8.3%	14	8.9%	1	3.3%	42	8.4%
	0	0.0%	2	1.3%	0	0.0%	2	.4%
Indigenous	7	2.2%	5	3.2%	0	0.0%	12	2.3%
Mixed	14	4.3%	7	4.4%	1	3.3%	22	4.3%
PNA	4	1.2%	6	3.8%	0	0.0%	10	1.9%
Other	7	2.2%	6	3.8%	1	3.3%	14	2.7%
Missing								
Age								
20-29	3	.9%	1	.6%	2	6.7%	6	1.2%
30-39	57	17.5%	25	15.8%	10	33.3%	92	17.9%
40-49	89	27.4%	29	18.4%	6	20.0%	124	24.2%
50-59	81	24.9%	57	36.1%	2	66.7%	140	27.3%
60-69	64	19.7%	30	19.0%	6	20.0%	100	19.5%
70 +	18	5.5%	5	3.2%	1	3.3%	24	4.7%
Missing	13	4.0%	11	6.9%	3	1.0%	27	5.5%
Total	325		158		30		512	
Mean	51.09		51.61		46.33		50.95	
Std	11.90		11.39		13.56		11.88	

Professional Characteristics of Participants.

Regarding professional attributes, in particular rank, 3.5% of faculty identified themselves as adjunct, 2.7% as lecturers, 25.9% assistant professors, 27.5% associate professors, 32.6% full professors, with “Other” making up 5.8%. With respect to the types of courses faculty members taught, 29.8% reported teaching natural science, 7.8%

hard science, 17.2% humanities, and 39% social sciences. A much more detailed exploration of the professional attributes of faculty members across institutions can be found in Table 9.

Table 9

Professional Attributes Summary

	<u>MU</u>		<u>USask</u>		<u>WC</u>		<u>Total</u>	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Rank								
Adjunct	13	4.0%	2	1.3%	3	10.0%	18	3.5%
Lecturer	9	2.8%	5	3.2%	0	0.0%	14	2.7%
Assistant Prof	84	25.8%	35	22.3%	14	46.7%	133	25.9%
Associate Prof	87	26.8%	50	31.6%	4	13.3%	141	27.5%
Full Prof	103	31.7%	58	36.7%	7	23.3%	168	32.7%
Other	25	7.7%	4	2.5%	1	3.3%	30	5.8%
Missing	4	1.2%	4	2.5%	1	3.3%	9	1.8%
Course Content								
Natural Sciences	82	25.2%	66	41.8%	5	16.7%	153	29.8%
Hard Sciences	30	9.2%	8	5.1%	2	6.7%	40	7.8%
Humanities	63	19.4%	16	10.1%	9	30.0%	88	17.2%
Social Sciences	131	40.3%	56	35.4%	13	43.3%	200	39.0%
Missing	19	5.8%	12	7.6%	1	3.3%	32	6.2%

To ensure that the random split of data was in line with the data as a whole, the demographic characteristics were calculated in order to ensure that they were not out of line with the data as a whole (Table 10). Additionally, the professional characteristics were also calculated for the same purpose (Table 11). A comparison confirmed that the split halves mirrored the data as a whole, and the data analysis was continued.

Table 10*Demographic Information Data Subset A*

	<u>n</u>	<u>%</u>
Gender		
Male	121	48.2%
Female	124	49.4%
Missing	6	2.4%
Race		
White	189	75.3%
Black	5	2.0%
Hispanic	7	2.8%
Asian	22	8.8%
Indigenous	1	.4%
Mixed	6	2.4%
PNA	9	3.6%
Other	4	1.6%
Missing	8	3.2%
Age		
20-29	4	1.6%
30-39	25	16.7%
40-49	29	23.9%
50-59	57	27.1%
60-69	30	19.9%
70 +	5	4.7%
Missing	11	4.4%
Total	251	
Mean	51.14	
StdDev	12.36	

Table 11

Professional Attributes Data Subset A

	<u>n</u>	<u>%</u>
Rank		
Adjunct	9	3.6%
Lecturer	3	1.2%
Assistant Prof	69	27.5%
Associate Prof	68	27.1%
Full Prof	83	33.1%
Other	16	6.4%
Missing	3	1.2%
Course Content		
Natural Sciences	75	29.9%
Hard Sciences	22	8.8%
Humanities	40	15.9%
Social Sciences	102	40.6%
Missing	12	4.8%

Data management and cleanup

After the surveys were closed the survey data were merged into one file, with a column added for identifying each institution. The data was then scrutinized to address problem cases. First, there were a few cases where respondents simply stepped through the entire survey without answering any questions. The capability for faculty members to skip questions, even though it impacted data quality, was necessary in order to obtain IRB approval for the study. When these records were found, they were deleted from the analysis. This resulted in the removal of seven cases.

The second issue that was addressed were flat-liners (Menictas, Wang, & Fine, 2011), people who gave the same answer for every question on the psychometric (FIPS1 – FIPS23) section of the survey. When these records were found they were deleted from the analysis. This resulted in the removal of five cases.

Third, while most faculty members who answered the survey were meticulous about addressing each question, there were a very small number of faculty that skipped some of the questions, either purposefully or as an oversight. Additionally, questions where the faculty member selected “I don’t know” were reassigned to missing values. These records were kept and the missing data were addressed via maximum likelihood, which will be discussed in the section on factor analysis.

As a result the information that remained after the removals of unanswered and flat-line items totaled 512 responses. Of those 512 responses, only 22 were missing data. Those that marked “Don’t know” did so 1,275 times, or slightly above ten percent of the total 11,776 answers. The total number of missing data points was 1,297, or 10.9%. Further details about missing information can be found in Table 12.

Table 12*Missing Data Summary*

<u>Questions</u>	<u>Missing</u>	<u>Don't Know</u>	<u>Total</u>
FIPS1	0.0	24 (4.7%)	24 (4.7%)
FIPS2	0.0	81 (15.8%)	81 (15.8%)
FIPS3	0.0	45 (8.8%)	45 (8.8%)
FIPS4	0.0	112 (21.8%)	112 (21.8%)
FIPS5	0.0	103 (21.4%)	103 (21.4%)
FIPS6	1 (.2%)	33 (6.4%)	34 (6.6%)
FIPS7	6 (1.2%)	26 (5.1%)	32 (6.3%)
FIPS8	1 (.2%)	27 (5.3%)	28 (5.5%)
FIPS9	3 (.6%)	28 (5.5%)	31 (6.1%)
FIPS10	0.0	20 (3.9%)	20 (3.9%)
FIPS11	0.0	31 (6.0%)	31 (6.0%)
FIPS12	1 (.2%)	35 (6.8%)	36 (7.0%)
FIPS13	0.0	43 (8.4%)	43 (8.4%)
FIPS14	1 (.2%)	27 (5.3%)	28(5.5%)
FIPS15	0.0	68 (13.3%)	68 (13.3%)
FIPS16	0.0	89 (17.3%)	89 (17.3%)
FIPS17	2 (.4%)	74 (14.4%)	76 (14.8%)
FIPS18	2 (.4%)	81 (15.8%)	83 (16.2%)
FIPS19	0.0	74 (14.4%)	74 (14.4%)
FIPS20	2 (.4%)	61 (11.9%)	63 (12.3%)
FIPS21	3 (.6%)	43 (8.4%)	46 (9.0%)
FIPS22	0.0	86 (16.8%)	86 (16.8%)
FIPS23	0.0	46 (9.0%)	46 (9.0%)
Totals	22 (0%)	1275 (10.7%)	1297 (10.9%)

Percentages for FIPs questions were calculated based on n = 512

Percentages for Totals were calculated based on n=11,776

Chapter 6 – Internal and Construct Validity

Because internationalization is a complex concept, it is the goal of this research effort to verify that proposed factors can be used to measure faculty perceptions of internationalization. The tool that is most commonly used to do this is factor analysis. Factor analysis originated in psychometrics and is used extensively in behavioral and social sciences (Kline, 2013). The basic premise is that factor analysis is used to examine a large number of observed variables for the purpose of uncovering a smaller number of unobserved (latent) variables called factors.

A significant body of research utilizes a two tiered approach to factor analysis which includes both an Exploratory Factor Analysis (EFA), which seeks to identify factors when no model has previously been defined, a Confirmatory Factor Analysis (CFA) which will seek to determine whether or not factors load onto a previously identified model. To this end, since the model has already been identified based on a literature review, the CFA will be used exclusively.

Internal Validity

Descriptive analyses were conducted to generate subscale means and standard deviations for the data. Additionally, correlations were conducted and Cronbach's alpha coefficients were calculated to examine the internal consistency of the subscales (Nunnally & Bernstein, 1994).

InstSup had the highest mean (4.77), while FinSup had the lowest (2.80). With respect to Cronbach's alpha, the close to 1.0, the greater the internal consistency. With this in mind George and Mallery (2003) provide guidance as to the quality of the

measure. In particular, “> .9 – Excellent, > .8 – Good, > .7 – Acceptable, > .6 – Questionable, > .5 – Poor, and < .5 – Unacceptable” (p. 231). In terms of the FIPS, Cronbach’s Alpha scores ranged from a low .798 for FacExp, to a high of .931. Three factors fell into the good category and one was excellent. Furthermore, all of the factors were moderately correlated with each other (see Table13). As a result, the FIPS showed acceptable internal consistency.

Table 13

Means, Standard deviations, subscale correlations, and internal consistencies of FIPS.

<u>Variable</u>	<u>Mean (SD)</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>Alpha</u>
InstSup	4.77 (1.02)				.816
FinSup	2.8 (1.23)	.354**			.827
FacExp	3.06 (1.13)	.321**	.364**		.798
IngRwd	3.83 (1.43)	.280**	.273**	.366**	.931

Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) is a theory driven procedure for studying the relationships between observed and latent variables. Because a predefined theoretical model was being tested, based on the literature review and a content analysis, a CFA was used to determine whether or not the theoretical model was valid.

The primary statistical software used for conducting this research was Mplus (Muthén & Muthén, 2010) as it maximizes the likelihood that the data were drawn from a given population. Also, Mplus was selected because it provides a robust use of maximum likelihood estimation as a means to deal with missing data. In missing data of various kinds can be addressed through Mplus, by default, including data that is missing

completely at random, missing at random, and not missing at random (Muthén & Muthén, 2010).

Once the results are obtained from Mplus, it is necessary to examine the results to determine whether or not the model provides a good fit. In this context four fit indices were identified from the literature as providing well known goodness of fit metrics. The indices used were the Root Mean Square Error of Approximation (RMSEA), comparative fit index (CFI), and the Tucker-Lewis fit index (TLI).

Root Mean Square Error of Approximation.

RMSEA is a measure of goodness of fit that measures the discrepancy between the model and the data, per degrees of freedom, for that model. Over the years researchers have adopted different cutoff points for determining what “a good fit” is. For instance, MacCallum, Brown, and Sugawra (1996) indicate that .01 or less is an excellent fit; .01 to .05 is a good fit; .05 to .08 is a mediocre fit; and anything over .08 is a poor fit. Browne and Cudeck (1993) identify their cutoff points as .05 or less as a close fit; .05 to .08 as a reasonable fit; while adding that they would not “want to employ a model with a RMSEA greater than .1” (Browne & Cudeck, 1993, p. 144). For a less nuanced, and often cited cutoff, Hu and Bentler (1999) indicate that .06 or less should be used. For the purposes of this research the .06 guideline will be used as it is well established in the literature and is relatively conservative compared to the previously mentioned cutoff points of .08 and .1.

While RMSEA is an often used measure of goodness of fit, it does have its weaknesses. The primary weakness is that it tends to over-reject a true model when

sample sizes are small (Hu & Bentler, 1999). To ensure that this is not a problem, other measures of goodness of fit will be used in combination with RMSEA.

Comparative Fit Index.

Another measure of fit that will be employed in this analysis is the Bentler Comparative Fit Index, or just the Comparative Fit Index (CFI). Bentler created the CFI as a way to take into account weaknesses in other fit indexes to take into account the variance in sample size and it has become a very popular fit index because of that (Fan, Thompson, & Wang, 1999).

The CFI assumes that latent variables are not correlated and compares the sample covariance matrix with a null model (Hu & Bentler, 1999). The CFI has a range between 0 and 1 where the closer the value is to 1, the better the fit. The recognized cutoff of $>.90$ has been recognized in the past as providing an acceptable fit. However Hu and Bentler (1999) suggest that $>.95$ provides a good measure of acceptable fit.

Tucker-Lewis Index.

The Tucker-Lewis Index (TLI), sometimes referred to as Non-Normative Fit Index (NNFI), is another goodness of fit index. Like CFI the results fall between 0 and 1, although calculations can actually go below 0, or above 1, on rare occasions. Hu and Bentler (1998) suggest a cutoff of $.95$.

By relying on multiple “goodness of fit measure,” the weaknesses inherent in a single measure can be minimized. It should also be pointed out that many different measures of goodness of fit have been developed over the years; however the measures selected for this research are commonly utilized for similar research.

CFA Initial Theoretical Model.

Prior to conducting the CFA, 251 items (Dataset A) were randomly split from the full data. Dataset A was used for the initial confirmation of the theoretical model. The full data set was set aside to be used for additional confirmation of the model (Worthington & Whittaker, 2006).

The initial theoretical model resulted in a poor fit with an RMSEA of .104, CFI of .899, and a TLI of .884. An examination of the factor loadings identified some issues with observed variables that loaded poorly, or had strong cross loadings, resulting in their removal from the model. Each of these variables was removed in an iterative fashion and then goodness of fit measure was recalculated until a final model was calculated. During this process FIPS3, FIPS7 – FIPS11, FIPS14, and FIPS17-23 were removed from the model.

Additionally, during the iterative process, it was found that the original theoretical factor, IntExp, was unsustainable because the variables simply did not load well, or loaded heavily on multiple factors. Because of this the factor was removed.

Furthermore, an analysis the remaining data indicated that FIPS4 and FIP5 correlate very highly to one another at the .841 level. Because of this these two variables were split from the InstSup factor and placed in a related factor called Financial Support (FinSup). The rationale for this split was first the context of the questions; both had to do with financial support compared to a more rhetorical support provided by the other variables within the InstSup factor. The second, there was significant feedback from faculty members in the same survey that indicated that there

was a large disconnect between what the institution says, and what kinds of tangible support the faculty members receive.

Table 14

<i>Goodness of Fit Metrics</i>			
	¹ <u>RMSEA</u>	² <u>CFI</u>	³ <u>TLI</u>
Initial Model	.104	.899	.884
Final Model	.014*	.996*	.994*

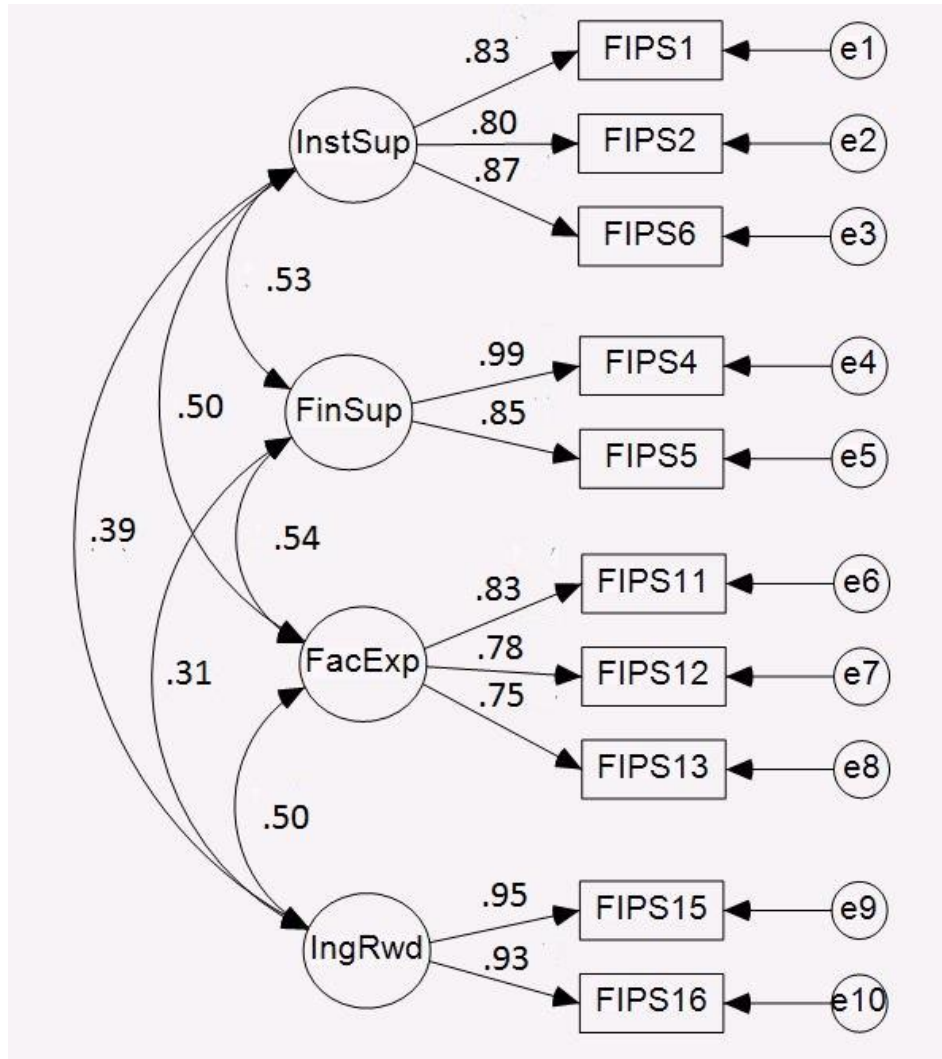
¹RMSEA values less than .06 are considered a good fit

²CFI values greater than .95 are considered a good fit

³TLI values greater than .95 are considered a good fit

CFA Final Model.

The resulting final model provided strong goodness of fit measures (Table 14). In particular RMSEA.014, well below the .06 cutoff, CFI increased to .996, and TLI to .994 (Figure 3). The primary weakness of this model is that two of the factors only have two observed variables each. While this is not preferred, typically a factor should not have less than three factors, in cases where the variables are loading very highly together this guideline can be dismissed. In particular the cutoff should be .7 or better (Worthington & Whitaker, 2006). In this particular case, the FinSup variables are loading at .99 and .85, and the IngRwd is loading at .95 and .93. For this reason it was decided to keep these factors.



RMSEA = .014, CFA = .996, TLI = .994

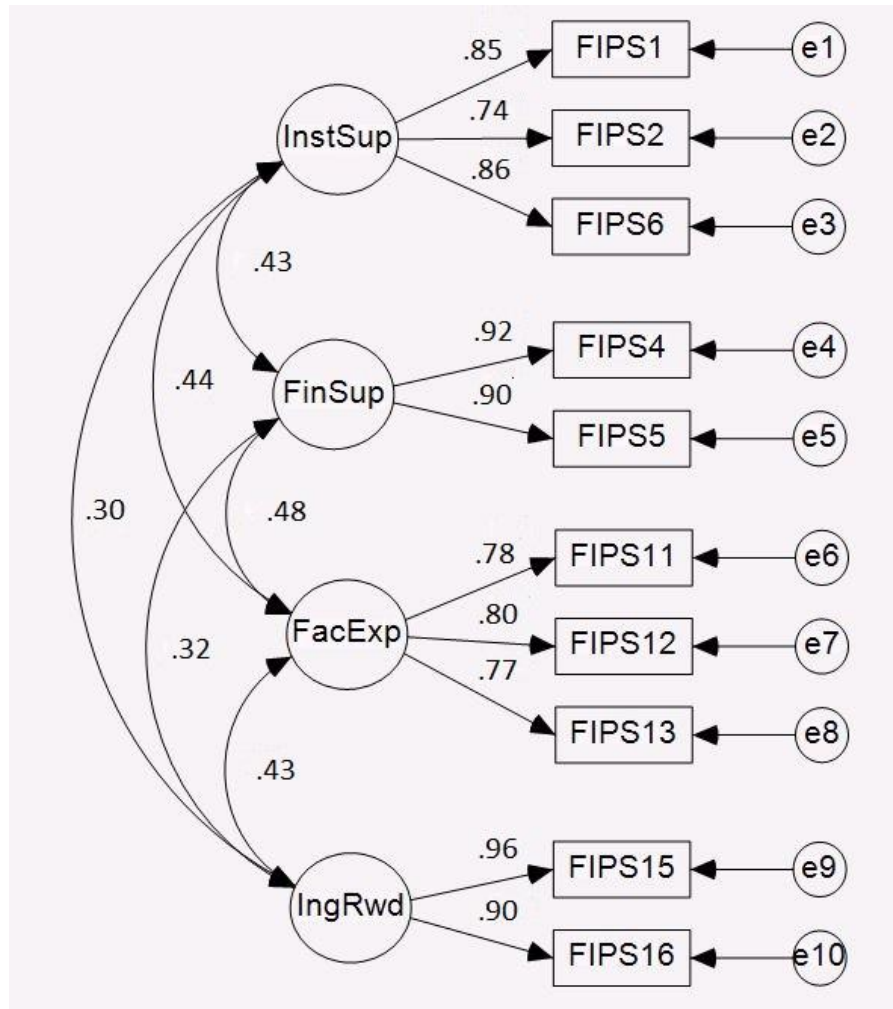
Figure 3. Single Order Factor Analysis, Dataset A

Another measure of fit that further validates this model is the Chi-Square ratio where the smaller the ratio the better the fit. The chi-square ratio is obtained by dividing chi-square by degrees of freedom. As with the other goodness of fit ratios, there is some debate as to what makes a good cutoff. Wheaton (1987) suggests that it should not be used at all. However over the years different researchers have used different ratios to determine goodness of fit. Some have used values as high as 5:1, while others advocate that anything over 2:1 is unacceptable (Marsh & Hocevar, 1985). In the case of the final model defined above, the chi-square ratio is 1.5:1 which falls below even the most stringent recommendation of goodness of fit.

Full Data Analysis.

Up to this point the theoretical model was developed based on Dataset A. Once the instrument was finalized the analysis was performed on the entire dataset. In particular, if the model was valid additional analysis on a broader set of data should either prove or disprove that the instrument provides consistent results, particularly in that the original model was theorized in Figure 3 was changed significantly over the course of the validation.

An analysis based on the whole dataset also resulted in a strong fit with RMSEA of .06, right at the .06 cutoff, CFI of .989, and TLI of .983 (Figure 4). In this context CFI and TLI are both .95 or above which indicates a good fit. Although it appears that the data does not fit as well when faced with a larger dataset, in fact the model remains strong.



RMSEA = .06, CFI = .989, TLI = .983.

Figure 4. Single Order Factor Analysis, Full Data

Single First Order Factor Analysis.

The four factor solution proves very strong. However there is a question regarding the potential of more directly measuring internationalization perceptions by eliminating the factors and creating a one factor solution. To this end the observations were associated to a factor called internationalization all (InterAll) and a CFA was run. The resulting statistics for this new model proved detrimental when compared to the four factor solution described above. In particular the RMSEA measured .266, well above the .06 cutoff, and an extremely poor fit; CFI and TLI did not perform any better with their respective scores of .838 and .791, well below the .95 cutoff (Figure 5). As a result of this analysis it is evident that the single factor solution proved detrimental to the model. Therefore, the four factor solution provides a significantly better solution.

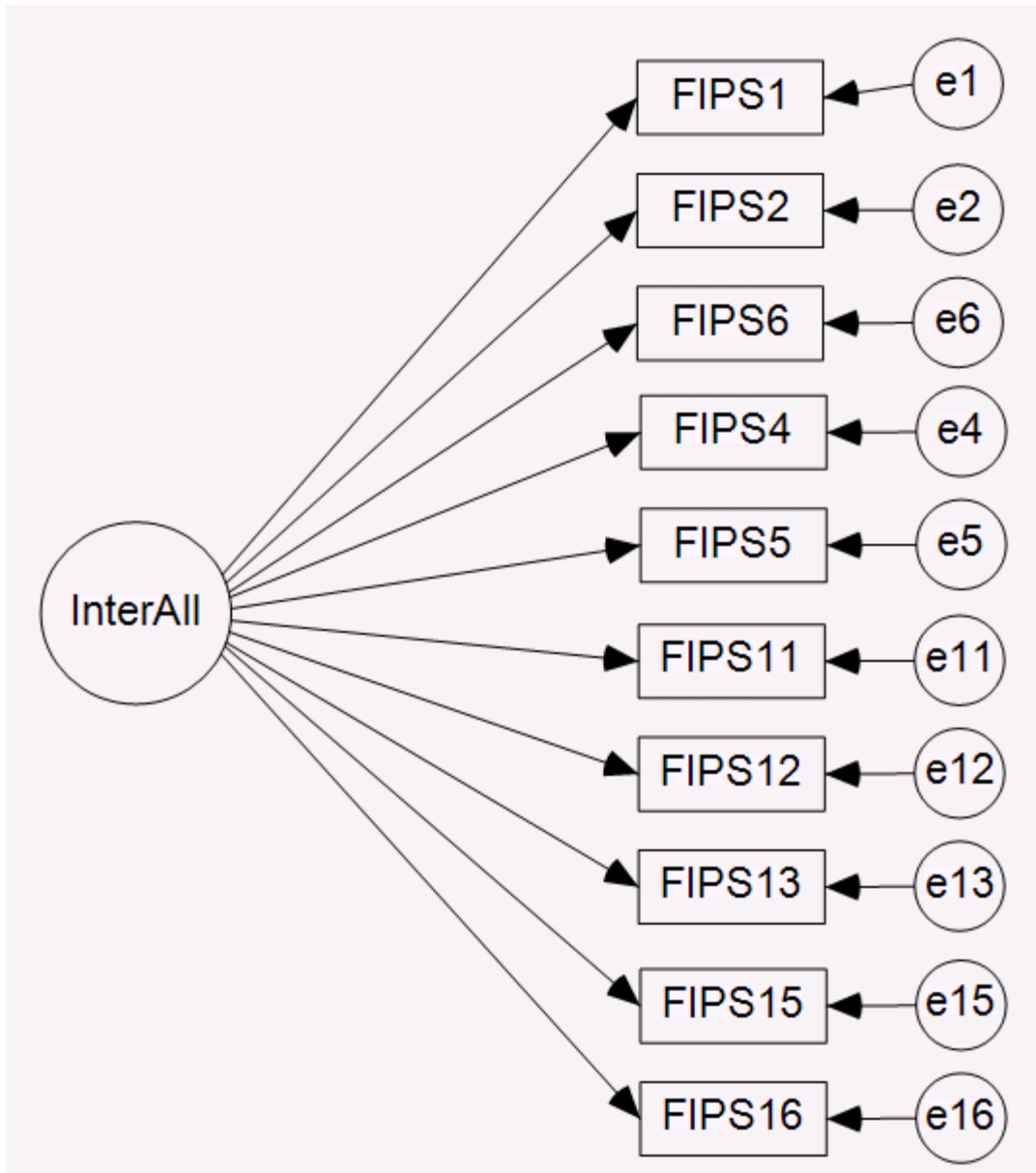


Figure 5. First Order Factor Analysis with Single Factor Solution

Second Order Factor Analysis.

Between the four factor solution and the single factor solution, the four factor solution proved a much better model. However, an additional question remains. Do the four factors described above contribute to a second order factor that can be used to measure internationalization perceptions (InterAll) as a whole? To determine this a second order factor was created with InstSup, measured by FIPS1, FIPS2, and FIPS6; FinSup, measured by FIPS4 and FIPS5; FacExp, measured by FIPS11, FIPS12, and FIPS13; and IngRwd, measured by FIPS15 and FIPS16, as the first order factors.

After running the calculations, with the full dataset, the results of the analysis were a RMSEA of .049, well below the .06 cutoff. The CFI and the TLI of .991 and .987 respectively, both measured well above the .95 cutoff (Figure 6).

In order to get a sense of which model performed better between the four factor solution and the second order four factor solution, a Bayesian analysis was performed to determine which proved the best fit. In this context the Bayesian statistic for the four factor model was 6663. For the second order, single factor model it was a slightly better 6659, but only if a very general understanding of support for internationalization is desired.

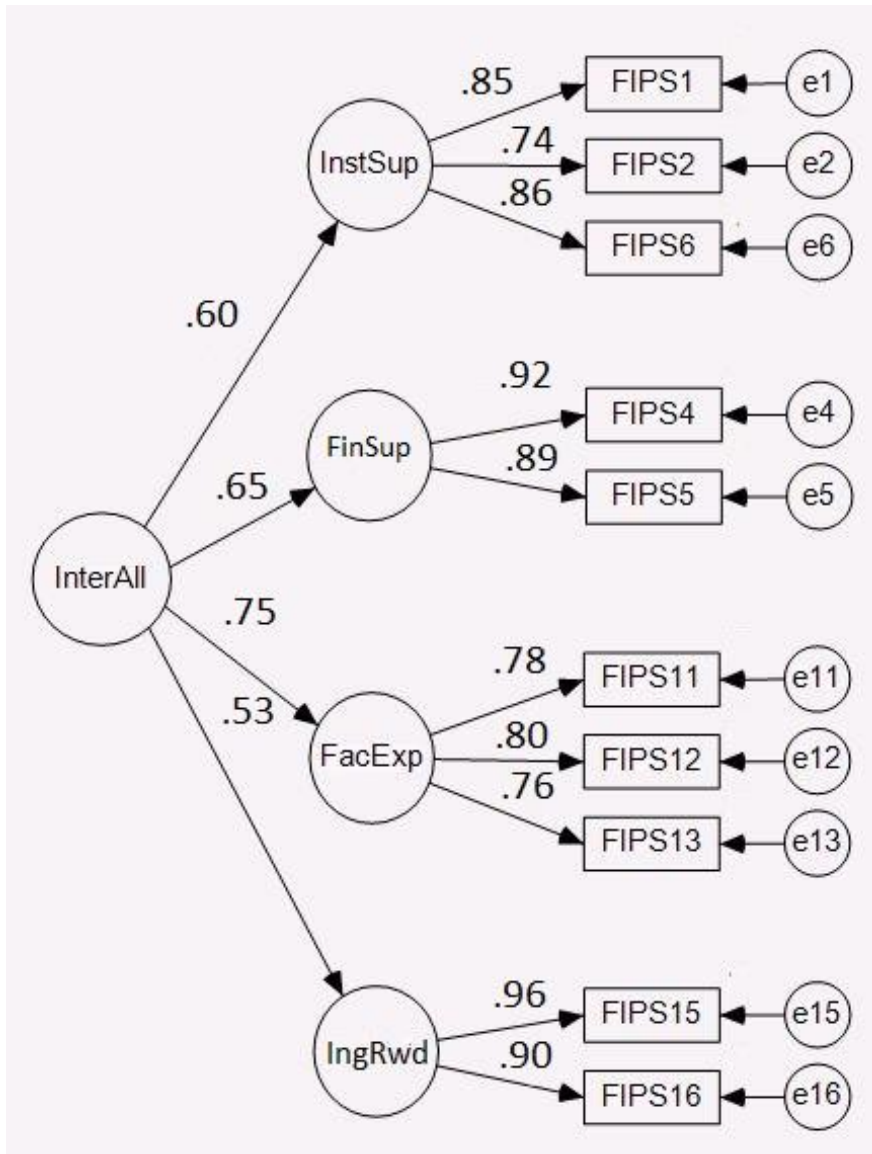


Figure 6. Second order factor analysis with four factor solution

Summary

In this chapter a series of CFA were conducted in an effort to both develop the instrument, and to validate the instrument once finalized. As a result a model was formed that had highly correlated factors, and presented a good fit as a whole. To ensure that the developed model provided consistent results additional factor analysis was conducted using an expanded dataset. During this second round of testing the model provided consistent results in terms of both the factor correlations and the fit statistics. Additionally, the possibility of a second order factor was explored which resulted in a more general model for measuring faculty internationalization perceptions.

Finally, a single first order factor analysis was conducted to examine the necessity of a four factor model. As a result it was shown that InstSup, FinSup, FacExp, and IngRwd proved critical when it came to the resulting fit criteria. As a result the primary model under investigation proved very strong.

Chapter 7 – Analysis of Demographic and Professional Characteristics

Although the purpose of this research is to identify factors that explain faculty member perceptions of internationalization, additional questions were asked to collect demographic and professional characteristics. This was done for two reasons. First, demographics were collected to ensure that respondents were representative of institutional demographics. Second, demographics data were collected for the purpose of conducting further research. In this context the following data were collected (Table 15), although not all of it was utilized in the context of this research effort.

Table 15*Demographic and Professional Questions*

Gender	1 = male, 2 = female.
Age	Range = 21 – 100.
Race/Ethnicity	1. European Descent, 2. African Descent, 3. Latino/a 4. Asian/Asian Descent, 5. Aboriginal (native American), 6. Mixed Race/Ethnicity, 7. Prefer not to answer
Country of Origin	validated 50 characters
Time away from home country (years)	Range = 1 – 100.
Faculty Rank	1. Adjunct, 2. Lecturer, 3. Assistant Professor 4. Associate Professor, 5. Full Professor
Academic Department	validated 50 characters
Teaching Context	1. Natural Sciences, 2. Hard Sciences 3. Humanities, 4. Social Sciences
Teaching Level	1. Graduate, 2. Undergraduate
Multilingual	1. Yes, 2. No
Languages	validated 50 characters
Study Abroad	1. Yes, 2. No
Study Abroad Locations	validated 50 characters
Faculty Exchange	1. Yes, 2. No
Faculty Exchange Locations	validated 50 characters
International Research Participation	1. Yes, 2. No
International Conferences participation	1. Yes, 2. No
International Partnership participation	1. Yes, 2. No
% of International Students	1. None, 2. 1-5%, 3. 6-10%, 4. 16-30%, 5. 31-100%, 6. 51-100%

Analysis of Variance

One of the reasons for creating an instrument that can measure internationalization perceptions is to measure it. It has been proven that the instrument is valid with respect to confirmatory analysis. However, it would not be a very useful instrument if its output could not be used to examine particular populations within the academy, or particular differences between institutions.

To this end, an analysis was undertaken utilizing SPSS. The statistical tool used to examine the data was a one way ANOVA. The results are as follows:

Institutional Analysis.

Within higher education every institution is unique. Different leaders espouse different goals to address unique institutional challenges. One of those challenges is internationalization. The ability for institutional leaders to know how their institution compares to others is valuable information that can impact how they will address internationalization in the future.

In order to examine the differences between institutions the factor score for each observation was calculated. In terms of the InstSup factor, an analysis of variance was then conducted that showed that the effect of institution was significant, $F(2,283) = 4.777$, $p = .009$. A Post hoc analysis using Tukey post hoc criterion was then used to locate the source of the significant difference. Results revealed that WC ($M = 5.36$, $SD = .68$) was significantly higher than both MU, ($M = 4.65$, $SD = 1.09$) and USask, ($M = 4.59$, $SD = 1.03$). These results suggest that faculty at WC, with its long tradition of high profile international engagement; perceive strong support by institutional leaders. MU and USask faculty are more tepid, but for the most part positive.

In terms of the FinSup factor, an analysis of variance was then conducted that showed that the effect of institution was significant, $F(2,283) = 5.360$, $p = .005$. A post hoc analysis using Tukey was then used to locate the source of the difference. Results revealed that USask ($M = 2.54$, $SD = 1.07$) was significantly lower than MU, ($M = 3.02$, $SD = 1.31$). This is an interesting result because the means for InstSup were almost identical which means that both institutions communicate the value of internationalization well, but may have issues of follow through in terms of program funding.

With respect to the other two factors, FacExp and IngRwd, an analysis of variance was conducted that showed that there were no significant differences between them.

Demographic Analysis.

Understanding the differences between groups, based on demographic characteristics, is a recurring theme within academic research. In this context the ways that different groups within academia experience internationalization could prove useful to institutional leaders.

For instance, an examination of gender differences across all institutions yielded no significant differences for any of the factors. However, with respect to race/ethnicity the analysis proved more interesting. In order to examine race, and because White faculty made up such a large number, white faculty were coded as 1, and all other faculty were coded as 2. An analysis of variance was then conducted that showed the effect of race/ethnicity was not significant for FinSup or FacExp; however, it was significant for InstSup and IngRwd.

With respect to InstSup, an analysis of variance was conducted that showed that the effect of race/ethnicity was significant, $F(1,404) = 6.236$, $p = .013$. Results revealed that White ($M = 4.84$, $SD = .99$) had a higher perception of support for internationalization than minority faculty, ($M = 4.53$, $SD = 1.07$).

Additionally, an analysis of variance was conducted that showed that the effect of race/ethnicity on perceptions of IngRwd was significant, $F(1,401) = 5.945$, $p = .015$. Results revealed that White ($M = 3.91$, $SD = 1.41$) had a higher perception with respect to rewards than minority faculty, ($M = 3.49$, $SD = 1.47$). These results suggest White respondents believe that rewards related to tenure and promotion impact them at a higher level than minority faculty.

Professional Analysis.

Professional characteristics include experiential information about faculty members. For instance, what their rank is within the academy, what kinds of classes they teach, and what experiences they have had as a result of their employment. One such experience is faculty exchange. In particular does a faculty exchange experience impact ones perception of internationalization? In this context an analysis of variance was conducted that showed the effect of faculty exchange was not significant for FinSup, InstSup and IngRwd. However, it was significant in terms of InstSup where those that had experience with faculty exchange ($M = 4.98$, $SD = .99$) had a higher perception with respect to institutional support than those who had not, ($M = 4.72$, $SD = 1.01$).

Results suggest that those faculty members who have engaged programs like faculty exchange perceive support for internationalization at higher levels because of their international experience.

Summary

The FIPS instrument was built on a strong foundation. Furthermore, the ability to conduct cross institution level analysis, demographic analysis, and analysis based on professional characteristics proves that it is a robust and versatile instrument.

Additionally, the analysis that was conducted above was provided as an example of what the instrument can reveal, and was not comprehensive in any way. Additional analysis will be conducted at a later date.

Chapter 8: Conclusions, and Implications

Internationalization has become very important in higher education. The emphasis on internationalization can take many forms. At the most basic level success is measured by a simple count of international students and faculty members without expecting much if any engagement on the part of faculty members. However when internationalization includes issues like intercultural competency or curriculum reform the expectations of faculty members can be far reaching. Regardless, a measure of faculty member perceptions can prove valuable information to leaders within the institution who are charged with implementing international programs. Why the focus on faculty members? It is because faculty members are critical to the internationalization process and if they do not embrace the goals of internationalization, the efforts to internationalize the campus will be that much harder to accomplish.

Based on an extensive literature review it was concluded that there was no such instrument is available, a problem that this dissertation attempts to address through the creation and statically validation of such an instrument. In this effort four different methods of validation were used including a pilot study of faculty members to aid in the development of the initial question set; a QUAID analysis to further hone the questions and cleans them of questionable grammar; an expert review by members of the Association of International Education Administrators; and finally, a confirmatory factor analysis was conducted to statistically validate the final model.

This progression could be said to have two phases. The first phase was to develop an instrument based on the literature and input from faculty and leaders in the

area of internationalization. This was done primarily through qualitative means. In particular faculty members and experts in the field of internationalization were asked for feedback on the initial instrument that was developed from the literature review. At the end of phase one the instrument was submitted to a second phase of testing to ensure that it was statistically valid.

The second phase was a statistical analysis of the instrument that was developed in phase one. The primary means of validation was through the use of factor analysis, in particular confirmatory factor analysis. During this process the theoretical factors with their associated variables were examined to determine if they had construct validity. In other words, did the variables being analyzed actually represent or measure the construct being examined. Furthermore, the model as a whole was evaluated to determine the quality of the fit between factors.

The primary means of validating the model was done both holistically with model fit statistics, and at the factor level via correlation metrics. With respect to the fit statistics, three primary fit statistics were used, RMSEA, CFI, and TLI. Further goodness of fit measures were provided using chi-square ratio and Bayesian Information Criterion (BIC) to round out the analysis.

This chapter provides a discussion of the overall research findings of the study as well as the conclusions, implications, and recommendations for practice and future research.

Research Procedures

As explained in significant depth in Chapter 3, there were several steps in the initial creation and validation of the FIPS instrument. Throughout the process stakeholders and experts in the area of higher education were questioned and feedback was evaluated and integrated into the FIPS instrument.

Finally, the FIPS survey was sent to faculty members at three institutions, one in a Canadian prairie province, and two in the Midwestern United States. As a result faculty members provided 512 usable responses. A first and second-order confirmatory factor analysis was conducted in order to statistically validate the existence of latent factors. This process is documented below in significant detail.

Summary of Findings

Based on the data collected and analyzed in this study, the following key findings emerged that addressed each research question:

RQ1: To what extent can a valid and reliable instrument be constructed to measure faculty member perceptions of support for internationalization?

RQ2: To what extent does the instrument display content validity?

RQ3: To what extent does the instrument display construct validity?

RQ4: To what extent does the instrument display internal validity?

Finding 1.

To what extent can a valid and reliable instrument be constructed to measure faculty member perceptions of support for internationalization?

The construction of the instrument involved several steps, from concept, to development, and then to confirmation and validity. The result was a validated model and an instrument that can be used to measure the constructs for which it was built. The instrument itself proved very strong in terms of its ability to measure faculty member perceptions of internationalization.

Finding 2.

To what extent does the instrument display content validity?

Content validity was based on the initial construction of the instrument from the literature review. The primary mechanism for addressing content validity was the expert review. The experts were given each question that was derived from the literature and given an opportunity to provide feedback. To the extent to which the items on the instrument could be modified to address expert concerns, they were. As a result, the emergent instrument should display significant content validity.

Finding 3.

To what extent does the instrument display construct validity?

Initially there were four constructs that were derived from the literature; institutional support, expectations, rewards, and international perspectives. Each of these constructs was examined through confirmatory factor analysis to determine whether or not they were valid constructs. The results are as follows:

Institutional Support.

The institutional support subscale contained the largest number of variables including FIPS1, FIPS2, FIPS3, FIPS4, FIPS5, FIPS6, FIPS7, FIPS8, FIPS9, and FIPS22. During the confirmatory factor analysis a few of these variables proved problematic as they either did not load highly enough on the factors, or they loaded on multiple factors. As a result FIPS3, FIPS7, FIPS8, FIPS9, and FIPS22 were dropped from the model.

Another issue that was discovered was that “institutional support” is a broad concept that can include both rhetorical and tangible support. Because of this the InstSup factor was split into two factors with InstSup containing the rhetorical variables FIPS1, FIPS2, and FIPS6; and a new factor, financial support (FinSup) measured by FIPS4 and FIPS5. It should also be pointed out that it is uncommon to have a two variable factor and there was some debate as to whether to drop the factor entirely. However, because of the strength of the correlation between the variables, it was decided to keep them.

The extent to which these two subscales demonstrated construct validity is very strong. Furthermore, because institutional support as a subscale now divided into two different “institutional support” factors, the information provided is more nuanced.

Expectations.

The expectations subscale contained the FIPS10, FIPS11, FIPS12, and FIPS13 variables. During the confirmatory factor analysis one variables proved problematic as it did not load highly above .5 on any other variable either in or outside of the FacExp

factor. As a result FIPS10 was dropped from the model. The remaining factors, FIPS11, FIPS12, and FIPS13, demonstrated construct validity.

Rewards.

The rewards subscale contained the FIPS14, FIPS15, and FIPS16 variables. During the confirmatory factor analysis FIPS14 proved problematic as it loaded with only one variable in a different factor. As a result FIPS14 was dropped.

Like the FinSup factor that was identified earlier, this factor only has two variables associated with it. As stated previously, this is not the optimal solution but because the correlation between the variables was very high the factor was kept. In this context the remaining factors, FIPS15, and FIPS16, appear to be demonstrated strong construct validity.

International Perspectives.

Unlike the other previously mentioned constructs, the “international perspectives” subscale proved very problematic. The questions associated with this factor were FIPS17, FIPS18, FIPS19, and FIPS20. Unfortunately, the variables did not load well with each other, which was reason enough to eliminate the variables. However, the variables also loaded on some of the variables in other factors. For this reason all of the variables, FIPS17, FIPS18, FIPS19, and FIPS20, were eliminated along with the international perspectives factor.

As a whole the four factors, InstSup, FinSup, FacExp, and IngRwd appeared to have strong internal construct validity. However, it is important that the model as a

whole provides a good fit to the factors identified within it. To this end the model was examined utilizing several goodness-of-fit metrics. The initial model with all twenty-one variables proved problematic. In particular some of the variables were not loading above the minimum cutoff of .5, while others were loading across multiple factors. Once these issues were eliminated the model as a whole proved very strong.

The strength of the model as a whole was measured through the goodness-of-fit metrics. In particular the final model's goodness-of-fit scores for RMSEA, CFI, and TLI were well within fit ranges. Furthermore the chi-square ratio of 1.5:1 was well within the most stringent cutoff of 2:1. To this end, the model proved very strong as the individual factors demonstrated construct validity, and the model itself was shown to fit the data very well.

Finding 4.

To what extent does the instrument display internal validity?

In order to test the instrument for internal validity Cronbach's alpha coefficients were calculated for each of the four subscales. As a result each of the Cronbach's alpha coefficients exceeded .70, an indicator of internal consistency. Furthermore, all of the factors were moderately correlated with each other. As a result, the FIPS displayed excellent internal validity.

Methodological Conclusions

In the ideal circumstances the variables and factors identified with a new model would have been driven completely by theory. The following statistical analysis would

have proven the model was a good fit and each factor would have had construct validity. Unfortunately, while the model that arose from this research proved very strong, many of the adjustments were made based on numeric considerations as variables were dropped because of poor loadings or cross loadings.

Limitations

The final factors proved very strong with all but one showing construct validity. However, despite the strength of the instrument, there are some limitations that should be noted.

Limitation One: Two Variable Factors.

First, and perhaps the most obvious limitation regarding the final model, is that two of the factors only have two variables each associated to them (Worthington & Whitaker, 2006). While it is true that factors with highly loading variables are acceptable when they are highly correlated, a model with two such factors could be viewed with suspicion. To address this issue additional research should be conducted to identify and add additional variables. For instance, if this research is pursued further through additional survey research, part of the process should be to create additional “test” questions that might further enhance the model.

Limitation Two: Generalizability.

The second limitation is that the data itself was primarily representative of two large research level institutions in the American Midwest and Canada, with a much smaller set of data from a private college in the American Midwest. As a result the instrument is very generalizable to each of the institutions being examined as well as

other similar institutions. However, there are questions as to whether or not the instrument would be valid outside of this context. For instance, would it prove equally valid at regional institutions, private institutions, or other international institutions? Because of this question further research needs to be conducted to determine if the instrument applies to other populations, particularly in countries that have significantly different institutional priorities and cultures than those in the United States and Canada.

Limitation Three: Response Rate.

Third, while the number of responses, 512, is respectable, it could have been larger and more representative. To some degree the reason that the response rate was small was a result of limited resources. In particular, the incentive award for completing the survey was financed entirely at the expense of the researcher. As a result the respondents were offered a chance to win one of two Amazon gift cards in a drawing. This incentive was a paltry sum for a faculty member and was likely met with a collective shrug from most. Consequently, a significant number of faculty members simply deleted the request (multiple times). Further better funded research could include a more enticing incentive that could enhance the response rate.

Limitation Four: Restrictions on Communications.

Another issue had to do with restrictions on communication with faculty members as determined by the Institutional Review Board. Because of these limitations, in particular the restricted ability to follow up with faculty members, it is very likely that the response rate was impacted. This issue may be more difficult to address than

previously listed limitations as the authority to limit the number of communications is more often than not out of the control of the researcher.

Conclusion

The resulting first-order four factor solution proved very strong in its capability to measure various constructs within the concept of faculty perceptions of internationalization.

Although the limitations on the FIPS instrument have not been fully assessed, as of this point it offers the most powerful quantitative tool for the understanding of how faculty members perceive the institutional environment for internationalization. In this light, there are many players who would be interested and could benefit from its use. The first group of people who would be interested are researchers who study the “at home” internationalization context. Faculty members play a huge part in this process, so research that provides information about how faculty members perceive internationalization, could prove very useful in identifying weaknesses at various levels within the institution.

Comparative international researchers could also find this instrument useful as it provides a mechanism to compare cross boarder institutions. This would allow researchers to determine at the institutional level, or the country level if data from enough institutions were collected, how faculty members at different institutions perceive the support for internationalization. However, before this can happen the instrument is in need of further validation to ensure it works in these other contexts.

Another group of people who would be interested in the findings of this research are top leaders and departmental leaders within an institution. These leaders are the drivers of institutional priorities, and institutions are increasingly becoming more international. These leaders would be interested in how faculty members perceive support for internationalization at a moment in time, but also over time as programs are developed and implemented.

Suggestions for Future Research

There is much potential for future research where the FIPS is concerned.

Additional Instrument Validation.

As this research had to do with the creation and validation of the FIPS instrument, additional research could focus on further enhance the instrument. In particular, two of the factors contained only two variables each. These factors could be made more well-rounded through the identification of new variables that may be related to the variables already assigned to a particular factor. For instance, with respect to the FinSup factor, the two questions have to do with the financial support for research and teaching. A third question could be asked regarding financial support for “service” related activities, then a confirmatory factor analysis could be conducted and the new variable could be included or rejected based how it loads with respect to the other variables on the factor. This would fall more in line with literature that suggests that a factor should have at least three variables associated to it (Worthington & Whitaker, 2006).

Institutional Comparisons.

Another focus of additional research could be to conduct institutional comparisons of how faculty members perceive internationalization. In particular further research could focus on the examination of various types of institutions, public, private, domestic, international, large, small, etc... to determine how faculty members view internationalization across institutions. This is particularly relevant in that so much research is focused on institution level internationalization, (de Wit, 2002; Knight, 2004). As the FIPS instrument can be used to compare institutional dynamics, it could prove very valuable to researchers.

Intra-institutional Comparisons.

Depending on the types of demographic information collected from respondents, an examination faculty members from within various sectors of the institution could be examined. For instance, how do faculty members in the humanities view internationalization compared to faculty members with backgrounds in the hard sciences? Or, do faculty members see internationalization differently depending on their rank within the academy.

Longitudinal Comparisons.

Longitudinal research involves the repeated observations of the same variables over a period of time. Unlike a snapshot based approach to research, longitudinal studies can provide information about changes over time. In the context of the FIPS, it can be used to create baseline statistics about how faculty members currently perceive internationalization. As the study is conducted over time a picture will emerge as to

how the perceptions are changing. In particular institutional leaders will be able to examine how particular programs impact faculty members from one point in time to the next. For example, if an innovative program for faculty internationalization proves to have no effect on how faculty members perceive support for internationalization, it would allow institutional leaders to evaluate the program to see if it should be continued.

Internationalization Perceptions as Independent Variable.

The way that faculty members perceive support for internationalization may be important predictors of other perspectives. For instance, does ones perception of support for internationalization extend to ones perceptions of support for diversity initiatives? In literature these concepts are linked with international students providing great diversity (Bartell, 2003). However literature on diversity often overlooks international students (Hart & Fellabaum, 2008; Rankin & Reason, 2005). To this end, the FIPS survey, particularly the second-order factor version, could be paired with related survey instruments to determine relationships between faculty member support for internationalization and other important constructs.

Conclusion

Internationalization is important and all members of the institution, administrators, staff, and faculty, have a part to play. However, until now the role of faculty members with respect to internationalization hasn't been well known. One of the key motivations for initiating this research has been that faculty members play major role in internationalization, but there is no way to understand how they perceive

institutional support for internationalization. To address this problem an instrument was constructed to assess faculty member perceptions.

In order to do this a literature review was undertaken to understand relevant concepts like internationalization, motivation, intercultural competence, and perceptions and beliefs. The resulting framework was then developed to categorized different aspects of support which resulted in four initial constructs (InstSup, FacExp, FacRwd, and IntExp), of which one was later dropped (IntExp) and another added (FinSup). Within these constructs questions were developed (FIPS1 – FIPS20), with an additional three (FIPS21 - FIPS23) added later as a result of expert feedback.

A confirmatory factor analysis was then conducted in an iterative manner as survey items were evaluated for problems with variables that did not correlate to other variables or those that correlated highly across multiple factors. As a result FIPS1, FIPS2, FIPS6 (InstSup); FIPS4, FIPS5 (FinSup), FIPS11, FIPS12, FIPS13 (FacExp), and FIPS15, and FIPS16 (IngRwd) remained.

The resulting instrument proves very strong in terms of goodness of fit metrics, and very capable of measuring faculty perceptions of internationalization from a variety of perspectives. In particular analysis of variance showed that the instrument does detect differences between institutions, demographic subgroups, and professional characteristics.

The FIPS provides institutional leaders and researchers an understanding of how faculty members perceive support for internationalization. This kind of insight is essential for institutional leaders as it can help them allocate resources and communicate more effectively in pursuit of internationalization goals. Additionally, FIPS provides

insight to research faculty who study internationalization by providing a tool for conducting various types of research.

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Appendix A

Faculty Member

We would like to invite you to participate in the Faculty Internationalization Perceptions Survey (FIPS). The purpose of this survey is to examine your perceptions and beliefs regarding the international campus climate at your institution as well as to further enhance the reliability of the survey.

The survey takes about 5 - 10 minutes to complete.

Participants who provide an email address at the end of the survey will be entered in a drawing for **one of two \$50 dollar (US) Amazon gift cards**. This email address will not be connected to your response to the questionnaire. Please complete the survey by November 6th for a chance to win. Winners will receive an email notification with a link to the online \$50 gift card within 4-6 weeks.

Although the data from this research project will be published and presented at conferences, the data will be reported in aggregate form, so that it will not be possible to identify individuals or institutions.

Participation is voluntary, and you can skip any question that you don't want to answer or withdraw from the survey at any time by closing the browser. Since this survey is anonymous, once the survey is submitted it will not be possible to withdraw your data.

This research project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board. Any questions regarding your rights as a participant may be addressed to that committee through the Research Ethics Office ethics.office@usask.ca (306) 966-2975. Out of town participants may call toll free (866) 966-2975.

If you are interested in receiving information about the results of this survey, you may email me, John Robert Criswell II, at jrcomb3@mail.missouri.edu.

By completing and submitting the questionnaire, **YOUR FREE AND INFORMED CONSENT IS IMPLIED** and indicates that you understand the above conditions of participation in this study

The questions below will be informed by the following definitions:

Internationalization: The process of integrating an international, intercultural or global dimension into the purpose, functions or delivery of post-secondary education (Knight, 2004,p.11)

Knight, J. (2004). Internationalization Remodeled: Definition, Approaches, and Rationales. *Journal of Studies in International Education*, 8(1), 5–31

International Activity: Activities that include but are not limited to, the following examples: International professional development, membership in international organizations, international advising, participation in international events, overseas teaching, international research partnerships, recruiting international scholars, international student enrollment, or other internationally oriented activities.

International Teaching: Teaching abroad, faculty led programs abroad, or other similar programs.

International Research: Conducting research abroad, working with data from other countries, working on international topics, working with international faculty, or other internationally oriented research.

To what extent do you agree with the following statements concerning the campus where you are currently working?

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree	Don't Know
Top leaders express verbal and written support for internationalization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Institutional mission/vision statement specifically references an international dimensions (e.g. global, international, world, multinational)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

A range of professional development opportunities (e.g. workshops, courses, conferences) are provided to promote faculty internationalization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adequate funding for international teaching is available.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adequate funding for international research is available.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Top leaders express support for faculty participation in international activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My supervisor expresses support for faculty participation in international activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My colleagues express support for faculty participation in international activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Internationalization is mostly symbolic with little or no actual support.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A large number of international students are a burden on faculty members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faculty members are expected to participate in the development of international programs (e.g. institutional partnerships, international research collaborations, study abroad programs, intercultural organizations).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faculty members are expected to internationalize their curriculum by infusing international perspectives into their course content.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faculty members are expected to conduct international research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faculty members are expected to attend international conferences and seminars (conferences or seminars that significantly focus on international topics and research).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faculty member engagement in internationalization enhances opportunities for promotion.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faculty member engagement in internationalization enhances opportunities for tenure.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faculty members who engage in internationalization are granted awards, honors, and other professional recognition.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Past international experience (eg. study abroad, teaching abroad, international collaboration, international research, etc...) is a consideration in the recruiting of potential faculty members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My institution actively recruits scholars from other countries for teaching positions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunities exist for scholars from other countries to conduct research.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunities exist for scholars from other countries to develop collaborations with local faculty.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Internationalization is primarily driven by financial concerns.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Compared to other institutional priorities, internationalization is very important.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What should be your institution's next steps with regard to internationalization?

Please indicate your age (*Number between 21 - 100*)

Please indicate your gender

- Male
- Female

What is your race/ethnicity?

- European Descent
- African/African Descent
- Latino/a
- Asian/Asian Descent
- Aboriginal
- Pacific Islander
- Mixed race/ethnicity
- Prefer not to answer
- Other

What is your country of origin?

How long have you lived outside of your country of origin (*Number of years between 1 - 100*)

What rank are you within the academy?

What is the academic college that you are associated with? (e.g. Education, Physics...)

Which of the following categories describe the courses that you teach.

- Natural Sciences (Physics, Chemistry, Biology...)
- Hard Sciences (Mathematics, Computer Science, Statistics...)
- Humanities (Classics, History, Languages, Art...)
- Social Sciences (Anthropology, Business, Education, Economics...)

Do you speak a language other than your native tongue?

- Yes
- No

What other languages are you proficient in?

Have you participated in student exchange programs?

- Yes
- No

In what country did you study?

Have you participated in faculty exchange programs?

- Yes
- No

In what country did you teach?

Have you conducted international research?

- Yes
- No

Have you participated in international teaching?

- Yes
- No

Please think about the class with the largest enrollment of international students among the classes you teach. What is the percentage of international student enrollment?

- None
- 1-5%
- 6-10%
- 16-30%
- 31-50%
- 51-100%

Are your students primarily undergraduate or graduate students?

- Undergraduate
- Graduate

Thank you for completing the FIPS survey. If you have any questions please contact John Criswell at jrcmb3@mail.missouri.edu or phone at 573.886.7979.

If you would like to enter the drawing for one of two Amazon gift cards, please select the link below:

[Drawing](#)

VITA

John Robert Criswell II was born in Indiana to Katy and John Criswell. His education includes an undergraduate degree in computer information systems from Missouri State University (MSU); a master of business administration (MSU); a master of science in computer information systems (MSU); and a PhD in Education Leadership and Policy Analysis from the University of Missouri.

John has a strong passion for working with people from different cultures and has done so throughout his life. He is currently the President of the College of Education International Student Organization and has been very active in the University of Missouri Multicultural Hour. In addition he has traveled to five countries and was stationed in Scotland while in the U.S. Navy. As an intern for USAID he worked with the Higher Education Solutions Network to study chronic problems in developing countries. As a result of his efforts to internationalize the University of Missouri he was the recipient of the University of Missouri International Engagement Award for 2013.

John is married to Leah M. Criswell who teaches physics at Westminster College in Fulton Missouri. They are the proud parents of a 6-year old daughter, Molly, and an 11-year old son, Robby.