

EXPLORING THE VIEWS OF AMERICAN,  
INTERNATIONAL, AND MEXICAN STUDENTS OF  
THE ANGLO SAXON MODEL OF THE RESEARCH  
UNIVERSITY: A Q METHODOLOGY STUDY

By

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Submitted to the Faculty of the  
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Oklahoma State University  
in partial fulfillment of  
the requirements for  
the Degree of  
DOCTOR OF PHILOSOPHY  
May, 2016

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## ACKNOWLEDGEMENTS

I want to express my utmost sincere gratitude to Dr. Stephen P. Wanger, my adviser, for his continuing support throughout my program. His mentorship and academic role modeling were both inspirational and motivational through my doctoral journey. I very much appreciate my professors and committee members, Dr. Kerri Kearney and Dr. Denise Blum, for their valuable feedback for this work and for their facilitation of my learning. My gratitude to Dr. Stephen Perkins for his feedback and his kind willingness to serve as the outside member of my committee.

My appreciation and gratitude to Dr. Diane Montgomery for her support and expert guidance in the realization of this Q methodology study. My extended gratitude to all my faculty members who were models of excellent scholarly work mentoring. I am immensely grateful to Oklahoma State University for the financial support to conduct my doctoral studies. In return, I promise to proudly and responsibly represent OSU in my future professional venues. Thanks to the OSU and the Stillwater communities of which I was proudly a member all these years.

I want to dedicate this work to my father, my mother, Mrs. Nobuko Nishiguchi (okaasan), and my dear son Emile. My love and gratitude to my father for being my best model of resiliency, perseverance, congruency, and dignity. My love and gratitude to my mother for working with me to make this journey possible and for worrying about me when I stayed late at night at my office or at the library. I am especially thankful to Okaasan for all her support for me and for my family. My gratitude and love to my virtuous son for staying by my side during all these critical years and for being my best model of discipline, maturity, and care for others.

Name: EDGAR APANECATL-IBARRA

Date of Degree: MAY, 2016

Title of Study: EXPLORING THE VIEWS OF AMERICAN, INTERNATIONAL, AND MEXICAN STUDENTS OF THE ANGLO-SAXON MODEL OF THE RESEARCH UNIVERSITY: A Q METHODOLOGY STUDY

Major Field: EDUCATIONAL LEADERSHIP AND POLICY STUDIES

Abstract: The purpose of this Q methodological study was to explore the views of three groups of graduate students concerning the Anglo Saxon model of the research university. A review of relevant literature revealed that current global competition among higher education institutions has pushed universities to look for successful models in order to position themselves in the local, national, and global markets. In that context, the key elements or characteristics of Anglo Saxon research universities are increasingly being adopted, completely or partially, by non-Anglo Saxon institutions. The review of the literature revealed that students' views of the key elements have neither been explored nor considered in the adoption/adaptation processes. This study explored students' subjective values of six key elements of the model. Five elements were those included in the emerging model proposed by Wanger, Azizova and Wang (2009) and Wang and Wanger (2011). An additional element, recurrent in the review of literature, was added for its empirical exploration. The review of the discourse, in the literature and online, on the Anglo Saxon model of the research university served to construct a 36 statement Q set that was sorted twice by 60 graduate students (20 American, 20 Mexican, and 20 international students). Demographic information was collected including age, gender, ethnicity, and years in current academic program. Analysis of the results was conducted with the use of PQMethod software. Volunteer post-sorting interviews helped inform the discussion of the results. A first-order factor analysis was conducted to describe the views within each group. A second-order factor analysis was conducted to determine how the within group views aligned across the three groups. A three factor solution was interpreted to be *knowledge driven*, *money driven*, and *scholarly driven*. Findings suggested that knowledge driven students value graduate education primarily for the sake of knowledge; that money driven students value graduate education mostly in terms of economic advancement; and that scholarly driven students value graduate education with regards to research.

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## CHAPTER I

### INTRODUCTION

The challenges posed by the internationalization and globalization trends in higher education, in particular that of competitiveness, have forced higher education institutions worldwide to look for new models to better respond to such challenges (Agnew, 2010; Matta, 2010; Parsons & Fidler, 2005; Schoorman, 2000; Yao, 2009). A common response has been the adoption and, in some cases, the local adaptation of the Anglo Saxon model of the research university that is common in the United States, the United Kingdom, Canada, Australia, and other Anglo Saxon countries (Teichler, 1998; Wanger, Azizova & Wang, 2009; Wanger & Wang, 2011). This model is interchangeably referenced in the literature as the model of the American research university because of the dominance of U.S. higher education. A well-known example of emulation is the Bologna Accord of 1994 signed by 40 European countries, which adopted the Anglo Saxon model in an attempt to homogenize higher education degrees and harmonize standards in Europe (Finn, 2007; *The economist*, 2005; Verger & Hermo, 2010).

Similar attempts have been documented in Asia and Latin America (Havaj, 2007; Montoya, 2004). For example, universities in Latin American that once adhered to the Latin American model of the university—characterized by tuition-free education for the masses, focus on national social and problems, and strong financial support of the state—

are incrementally shifting to a primary focus on research and graduate education and using the Anglo Saxon model as a referent (Aboites, 2010; Acosta-Silva, 2000; Brunner, 2009; Ferrer, 2010; Figueroa, 2010; Gacel-Ávila, 2011). In the particular case of Mexico, Acosta-Silva (2002) points that the demands of globalization and current critical issues in Mexican higher education such as growing institutional differentiation, internationalization of higher education, shortening of undergraduate programs, and decentralization of institutional management, have contributed to a push for universities to transition toward a new model that emulates the key elements of the Anglo Saxon model. However, Acosta-Silva adds that the transitioning has been the result of new political and economic factors have driven the transition, rather than careful strategic planning, a good design of institutional transformation, or a holistic reform of the higher education system. Elite private universities in Mexico, unfettered by loose government control in past decades, have led the shift; more recently, public universities have begun to emulate key elements of the model in responding to new economic paradigms and challenges (Kent, 2005). The transition, nevertheless, remains uncertain (Acosta-Silva, 2002; Arocena & Sutz, 2005).

### **Background of the Problem**

The growing dominance of the Anglo Saxon model of the research university as a referent for Mexican higher education institutions prompted the researcher to conduct a review of the literature and an online search of conversations on this issue. In a Google search conducted on September 20, 2013, looking for the conjunction of the terms “Anglo Saxon model” and “higher education,” the search engine found approximately 10,000 entries. Conducting the same search using Google Scholar the results showed

1,140 entries. An identical search on February 20, 2015, yielded 12,500 entries and 1,550 on Google Scholar. Although widespread in the literature and online discourse and reportedly taken as a referent for institutional transition and international competition around the globe, the Anglo Saxon model of the university remains a vague construct lacking theoretical foundations and empirical support.

In the literature, when referring to the Anglo Saxon model as successful, most authors either emphasize only one or two characteristics or provide a list of elements without addressing them in depth (Arthur et al, 2007; Arthur & Little, 2012; Finn, 2007; Gill, 2008; Teichler, 1998; van Santen, 2010; Yao, 2009). The most cited elements in the literature were the structure of degrees, the parity of programs and degrees, the competences students need in the place of work, the competition between universities, the openness to non-nationals, and, to a lesser extent, student mobility. Coincidentally, these elements are cited in the literature on international student education as key factors attracting international students to conduct their studies in the United States or in other Anglo Saxon countries, primarily the United Kingdom, Australia, and Canada. Likewise, the literature indicates that these same elements are commonly emulated by non-Anglo Saxon higher education institutions. Recently, Wanger, Azizova and Wang (2009) and Wang and Wanger (2011) contributed to the conversation of the Anglo Saxon model of higher education proposing a conceptual model composed of five key elements commonly shared by universities in Anglo Saxon countries. Their enumeration of these elements of this emerging model is relevant to the present study of the Anglo Saxon model.

A bibliographical and online search showed that no study of student perceptions of the Anglo Saxon model has been conducted, suggesting its emulation is being made without taking into consideration the perspectives of students. Therefore, an important empirical study is needed to explore the subjectivity of diverse groups of graduate students regarding their perceptions of the key elements of the Anglo Saxon model of the research university.

In the present study, as a Mexican graduate international student in the United States, the researcher was primarily interested in investigating the subjectivity of international graduate students studying in the United States and the subjectivity of Mexican graduate students studying in Mexico. The researcher gathered empirical data to explore students' perceptions of the Anglo Saxon model. This study contributed to the body of literature on the adoption of the Anglo Saxon model around the world and on the considerations of international students for the selection of U.S. higher education institutions to conduct their graduate studies. Moreover, the absence of studies on perceptions of American graduate students invited their inclusion in the study. Their inclusion was primarily aimed at providing insight on the views of local students but allowed a richer contrast of the perceptions among the three groups of participants.

A Q methodological research design was selected for this study because Q is a systematic research methodology specifically conceived for the exploration of human subjectivity on any issue (Brown, 1993; Stephenson, 1935a, 1935b; Watts and Stenner, 2012). Q methodology requires participants to sort a set of stimuli –typically statements– related to the issue under investigation to express their holistic points of view about the issue. Q utilizes factor analysis to correlate participants' holistic viewpoints and to

determine if groups of participants with similar points of view exist. The researcher designed a Q methodology study to explore how American, international (studying in the United States), and Mexican graduate students value key elements of the Anglo Saxon model of the research university from a personal and subjective view using Q method as a research strategy. This study was also aimed at contrasting the values within and among the three groups of students, with specific attention to values for self in contrast to what others experience, and to contrast the resulting views with the elements of the Anglo-Saxon model. To that end, participants were asked to sort twice a set of 36 statements related to different dimensions of six elements used in this study.

### **Statement of the Problem**

In search of becoming globally competitive, and as a result of internal and external economic pressure (Aboites, 2010; Bernasconi 2008; Kent, 1998, 2002; Mollis, 2007), Mexican higher education institutions are increasingly emulating the Anglo Saxon model of the research university. From a new structuring of academic programs to a greater focus on research, Mexican universities are adopting and adapting the model and increasingly leaving behind the historical model of the Latin American university.

Despite the significant impact of this shift on all higher education dimensions, the perspectives of students—which may raise considerations and may contribute to a more effective and adequate shift—have not been explored to better inform this transition. Accordingly, exploring the values of Mexican students in relation to the Anglo Saxon model is particularly relevant for Mexican higher education institutions that are currently transitioning to that model, as well as for those considering the shift not only in Mexico but elsewhere.

Recent literature reveals that the number of international students worldwide has grown exponentially in the past two decades (de Witt, H., Ferencz, I., & Rumbley, 2012, Yelland, 2011). In 2102, more than 700,000, or approximately 18% of the total number of international students, chose American universities for undergraduate or graduate education (de Witt, H., Ferencz, I., & Rumbley, 2012). The literature also indicates that some key elements of the U.S. model of the research university are the primary drivers for students to select U.S higher education institutions to conduct their graduate studies (Arthur et al, 2007; Arthur & Little, 2012; Finn, 2007; Gill, 2008; Teichler, 1998; van Santen, 2010; Yao, 2009). However, in the past decade there has been a considerable decline in students' selection of U.S. higher education institutions, as enrollments in higher education institutions in Europe, Australia, Japan, and other non-traditional destinations have grown (de Witt, H., Ferencz, I., & Rumbley, 2012). This negative trend, along with increasing global competition, is expected to continue in the present decade (McCloud, 2004; Yelland, 2011).

Despite the declining trend in matriculation, international students' perspectives on the value of the key elements of the Anglo Saxon model of the research university have not been explored. Literature on the subject is scarce and no empirical study has been conducted. Gaining insight on international students' (who are currently studying at U.S. higher education institutions) perceived value will contribute to an emerging body of literature, prompt further research on this field, inform policy making decisions, and be of help for higher education practitioners to enhance recruitment and retention strategies.

## **Statement of the Purpose**

The purpose of this study was to explore the perceived value of American, international, and Mexican graduate students of key elements of the Anglo Saxon model of the research university through the use of Q methodology. Additionally, the study sought to contrast the structure of the values within and among the three groups of students, with specific attention to values for self in contrast to what others experience, and to contrast the resulting views with the elements of the Anglo-Saxon model.

## **Research Questions**

The research questions that guided this study were:

1. In what ways did values for self associate with values for others in terms of graduate education?
2. What are the values of graduate education for American, international, and Mexican graduate students?
3. In what ways do the Anglo Saxon model and its elements explain the values of American, international, and Mexican graduate students?

## **Conceptual Framework**

Unlike other methodologies for the study of human subjects, the exploratory and abductive nature of Q methodology does not require an upfront conceptual framework, theoretical perspective, or hypotheses (Watts & Stenner, 2012). Nevertheless, as Watts and Stenner (2012) note, Q methodology involves constructivist and constructionist perspectives by nature because it focuses on subjective (personal) and psychological aspects of meaning as well as the sociological aspect of meaning-making processes (pp. 41-42). Constructivism and constructionism were both foundational for this study. A

constructivist perspective was utilized to explore the Anglo Saxon model of the research university as a construct and as a result of the subjective meaning of participants. A constructionist perspective was applied to explore the perceptions and values of the model in relation to participants' sociological aspects, such as national origin, and to their graduate education contexts and situations. Watts and Stenner (2102) state that in studying the facts in pursuit of an explanation, and unlike familiar forms of logic, Q methodology entails an abductive logic often leading to unanticipated discoveries (p.40). This research study was aimed at exploring the views of graduate students over empirical facts to unveil relationships, possibly unanticipated and surprising.

This study utilized the emerging conceptual framework of Wanger, Azizova and Wang (2009) and Wang and Wanger (2011) who recently proposed a set of elements constituting the Anglo Saxon model of the research university: 1) using English as the lingua franca, 2) a relatively fixed structure of academic programs, 3) flexible curriculum and growing stratification of programs/ institutions, 4) autonomy and decentralization of higher education, and 5) integration of research into higher education. In addition to these five elements, and derived from the literature review on this theme, an element conceptualized as "Knowledge as national capital" was also explored in this study to gain insight on its perceived value.

The six key elements of the Anglo Saxon model of the research university explored in this study were conceptualized as follows:

1. Use of English as lingua franca (ELF). This element refers to the increasing use in higher education of English as the primary language of instruction, academic materials, and publication of research (Baker, 2009; Bjorkman, 2010, 2011a,



2011b; Hevey, 2013; Mauranen, 2003; Mauranen, Hynninen & Ranta, 2010; Smit, 2012; “The pragmatics of English as a lingua franca in the international university: Introduction,” 2011; Wanger, Azizova & Wang, 2009; Wang & Wanger, 2011; Wilkins & Urbanovic, 2014; Zierer, 1974).

2. Structuring of academic programs in three tiers (SAP). This element is defined as the structuring of academic programs that incorporate a three or four-year bachelor degree program, a two-year master program, and a three five-year doctorate degree (Leake, 2013; Montoya, 2004; Wanger, Azizova & Wang, 2009; Wang & Wanger, 2011).
3. Flexibility of curriculum and growing stratification of programs and institutions (FSP). This element refers to the increasing flexibility of graduate curriculum and higher education programs, a greater institutional flexibility that allows students to transfer between institutions, and the increasing preeminence of university rankings in students’ decision to pursue a program at a given institution (Aboites, 2010; Acosta-Silva, 2000; Bastedo, Jaquette, & Harris, 2009; Bougnol & Dulá, 2006; Davies & Zafira, 2012; Knutson et al., 2014; Leake, 2013; Ross, 1977; Wang, 2004; Wanger, Azizova & Wang, 2009; Wang & Wanger, 2011).
4. Promotion of autonomy and decentralization of higher education (PAD). This element denotes the promotion in higher education of students’ autonomy in learning and scholarly work, as well as the governmental decentralization of higher education, that allows institutions a greater autonomy to deliver education services and to grant degrees with minimal legal regulations (Acosta-Silva, 2000, aboite2002; Brown, 1990; Eaton, 2009; Leake, 2013; Larson, 2003; Merino

Juarez, 2000; O'Donnell, Chang, & Miller, 2013; Overall, Deane, & Peterson, 2011; Ross, 1977; Wanger, Azizova & Wang, 2009; Wang & Wanger, 2011).

5. Integration of research into higher education (IRH). This element refers to an increasing emphasis in higher education programs on the production and publication of scholarly research (Aboites, 2010; Acosta-Silva, 2000, 2002; Knutson et al., 2014; Leake, 2013; Lei & Chuang, 2009; Wanger, Azizova & Wang, 2009; Wang & Wanger, 2011).
6. Understanding of knowledge as national capital (KNC). This element is characterized by the growing emphasis in higher education on the understanding and the promotion of knowledge as a private good that serves for personal and national economic advancement (Alexander, 2000; Cucchiara, Gold & Simon, 2011; Davies & Zafira, 2012; Hershock, 2010; Hutchison, 2011; Judson & Taylor, 2014; Lynch, 2006; Sellar & Lingard, 2014; Taylor & Judson, 2011; Wanger, Azizova & Wang, 2009; Wang & Wanger, 2011).

### **Significance of the Study**

This study contributed empirical knowledge to the emerging body of literature on the Anglo Saxon model of the research university. The research design was the first attempt to use Q methodology for the exploration of human subjectivity with regard to key elements of the Anglo Saxon model of the research university. This study also contributed to the increasing use of Q methodology in higher education research. Results provided insight on Mexican graduate students' perceived value of the model that may be significant for higher education stakeholders in Mexico (and possibly in other Latin American countries as well) considering the adoption and/or adaptation of the model.

This study provided insight that may be of use for leaders and policy makers in the United States with regard to U.S. and international students' views of the model; thus it contributed accordingly to the emerging body of literature and the research on this issue. The insights gained through the perspectives of international students may help American—as well as other Anglo Saxon—policy makers and practitioners to better confront the decline in the selection of U.S. universities by international students.

### **Scope of the Study**

The scope of this study was composed of American and international graduate students at a large (over 30,000 students) American public research university, located in Mid-Western United States, and of Mexican graduate students at a mid-size (over 17,000 students) private non-profit university located in central Mexico. All participants were enrolled at their respective institutions during the 2014-2015 academic year.

### **Role of the Researcher**

The researcher asked participants to sort a set of statements about their perceptions and values of key elements of the Anglo Saxon model of the research university under study. The researcher also requested participants to provide relevant demographic information without identifiers. Additionally, the researcher audio recorded conversations with participants who volunteered for a post-sort interview to gain further insight on their perceptions and values. In observance of proper conduct for research involving human subjects, the researcher followed these steps:

- A research protocol was submitted to the Institutional Review Board (IRB) at Oklahoma State University. The researcher started the research project after IRB granted approval (Appendix A).

- The researcher informed all prospect participants during recruitment and data collection about the purpose of the study, confidentiality, and the minimal risks involved in participation.
- The researcher informed all participants of their right to withdraw from the study at any time. No participant opted to withdraw.
- The researcher coded all data to protect participants' privacy.
- The researcher kept all data on his personal password-protected computer and a backup of coded and password-protected files was recorded on a flash drive for the exclusive use of the researcher.
- The researcher securely stored all physical materials and data during the dissertation process and proceeded to their destruction after its completion.

### **Assumptions**

Five assumptions structured this study.

1. Graduate students have a better knowledge than do undergraduate students of the elements and practices of research universities
2. Participants provided an honest and accurate personal view of the Anglo Saxon model of the research university
3. Participants provided an honest personal view of their perception of the views other American or other Mexican students
4. Participants answered demographic questions honestly and accurately
5. Participants identified themselves properly as enrolled in either the American university or the Mexican university chosen for this study for the 2014-2015 academic year

## **Limitations**

Participants in this study were American and international graduate students enrolled at a U.S. public university in a rural area in central United States, and Mexican graduate students enrolled at a Mexican private university in an urban area in central Mexico which is trying to become a research university. The methodological design of this study focused on gaining insight on the subjective views of participants on the perceived value of the key elements of the Anglo Saxon model of the research university. The statements included in the Q set derived from a review of relevant literature. The size, type, and control of the institutions to which participants were affiliated and the methodological design of this study limit the generalizability of the results.

## **Definition of Terms**

The following definition of terms applied for this study.

*Anglo Saxon model of the research university.* This refers to the dominant model of the U.S. research university, but common in Anglo Saxon countries, comprised of six key elements: (1) use of English as lingua franca, (2) structuring of academic programs in three tiers, (3) flexibility of curriculum and growing stratification of programs and institutions, (4) promotion of autonomy and decentralization of higher education, (5) integration of research into higher education, and (6) understanding of knowledge as national capital. The first five elements explored in this study were those proposed by Wanger, Azizova and Wang (2009) and Wang and Wanger (2011). The sixth element resulted from a review of literature and was added for its exploration (Cucchiara, Gold & Simon, 2011; Hershock, 2010; Hutchison, 2011; Lynch, 2006).

*Q methodology.* This is defined as a systematic research methodology, specifically conceived for the exploration of human subjectivity on any issue, that requires participants' sorting of a set of statements related to the issue under investigation and that utilizes factor analysis to correlate participants' individual sorts, to determine the association of similar points of view (Brown, 1993; Stephenson, 1935a, 1935b; Watts and Stenner, 2012).

*Subjectivity.* In Q methodology, subjectivity means "a person's communication of his or her point of view" (McKeown & Thomas, 1988, p.12).

*Sorter.* This refers to the individual that conducted the sorting and generated a sort as a result. In this study, sorter is used interchangeably with the term participant.

*Sorting.* This is the systematic rank ordering that each participant realized of the statements related to the six key elements of the Anglo Saxon model of the research university under a condition of instruction (McKeown & Thomas, 1988). In this study, participants performed the sorting twice under two different conditions of instruction: (1) "what elements of my graduate education are valuable to me?" and (2) "what elements of graduate education are valuable for American/Mexican students?"

*Q Sort.* This is a model of a viewpoint resulting from the sorting of a participant that reflected her or his individual subjectivity at the time the sorting was conducted (Brown, 1993; McKeown & Thomas, 1988; Watts and Stenner, 2012).

*Factor.* This represents a common point of view resulting from the intercorrelation of the Q sorts (Brown, 1993; McKeown & Thomas, 1988; Watts and Stenner, 2012).

*View.* This refers to the interpretation of a factor using the participants' demographic information and factor scores ( $z$  scores) and the array position of statements for each factor (McKeown & Thomas, 1988).

### **Chapter Summary**

This chapter presented the background and the context of the issue explored in this study. The chapter described the researcher's interest in exploring the subjectivity of graduate students of the key elements of the Anglo Saxon model of the research university. It included the statement of two problems, the statement of the research purpose, and the research questions. This chapter also included a discussion of the conceptual framework, the significance, and the scope, and the limitations of the study. Chapter II presents a review of relevant literature on globalization and its impact on higher education, the Anglo Saxon model of the research university and its key elements, the Latin American university, the emulation of the Anglo Saxon model in Mexico, and the declining trend in the matriculation of international students at U.S. higher education institutions.

## CHAPTER II

### REVIEW OF LITERATURE

This chapter presents a review of relevant literature for this study. Rather than presenting an exhaustive historical review, it centers on providing a context for the current trend of emulation of the U.S. model of the research university in Latin America, particularly in Mexico, and the declining trend in matriculation of international students at U.S. universities despite the predominance of the model. First, it presents a condensed review of the diverse meanings of globalization in the literature during the past three decades. Second, it includes a discussion of globalization in the context of higher education. Third, it presents a summary of recent literature on the elements or the characteristics of the Anglo Saxon model of the research university. Fourth, it includes a summary of the evolution of the Latin American model of the university, focusing on the model developed in the 20<sup>th</sup> century and its recent reforms. Fifth, it provides a description of the Latin America context that has facilitated and, in some cases, pushed Latin American universities to transition to other models, predominantly the Anglo Saxon model of the research university. Finally, this chapter concludes with a brief description of the current trend in international student mobility and the increasing international recruitment competition as a result of the new convergence of university models.



## **Globalization and the Knowledge Economy**

Globalization has been a hot topic in the past two decades (Acosta-Silva, 2000; Barrow, Didou-Aupetit & Mallea, 2003; Currie & Newson, 1998; de Witt, 2011; García-Guadilla, 2005; Klepak, 1998; Lauder, 2006; Lloyd, 2009; Sequeira-Rodríguez, 2002; Tierney, W. G. & Findlay, 2009). Some authors suggest that because the term itself is global, encompassing multiple dimensions, processes and trends, definitions are abundant and varied and often either too complex or too simplistic (Beerkens, 2003; Barrow, Didou-Aupetit & Mallea, 2003).

Beerkens (2003) argues that definitions of globalization depend on the point of reference and not on the disciplinary perspective. He identifies four points of reference for the conceptualization of the term and provides an extensive discussion of each. First is the distinction from local in terms of geographical expansion, and in which case it is conceptualized as worldwide. Second is taking power as a point of reference, referring to territoriality and jurisdiction. Third pertains to a cultural point of reference, encompassing mixing of cultures and consequences. Fourth is a holistic point of reference with regard to what he calls an emerging cosmopolitan identity. Each conceptualization requires an extended discussion outside the purpose of this review. However, Beerkens' (2003) distinction is central to the understanding of globalization that is taking place in higher education.

Barrow, Didou-Aupetit and Mallea (2003) similarly point out the term globalization is frequently used “to capture a variety of economic, cultural, social, and political trends that are each extending the boundaries of the world’s social systems beyond the borders of its nation-states” (p.1). Nowadays, higher education systems

worldwide are, to some extent, immersed in all those types of trends and therefore immersed in globalization. Globalization has been more pronounced in the economic neoliberal trend and has translated in a new model of business enterprise in which intellectual capital becomes a key asset of the new knowledge economy (Barrow, Didou-Aupetit & Mallea, 2003; Andrews & Criscuolo, 2013). Barrow, Didou-Aupetit and Mallea (2003) state that the high value of this model has been a response to market globalization and market fragmentation. They add that “while globalization requires companies to compete on an intellectual basis, niche marketing requires them to serve the unique needs of particular types of customers, rather than the standardized needs of the average mass consumer” (p.4). This reality has made its mark on higher education. Greater competition, increasing diversification, greater focus on knowledge production, increasing stratification of programs, and growing distribution of student mobility are just a few examples of the impact.

### **Globalization and Higher Education**

The abundant literature in the past two decades on globalization supports the claim of several authors that it is not a new issue facing higher education, but one that is current and needs to be addressed (Acosta-Silva, 2000, Altbach & Knight, 2007; Barrow, Didou-Aupetit, & Mallea, 2003; Cantwell, 2012; de Wit, 2008, 2011; Hershock, 2010; Hutcheson, 2011; Koirala-Azad & Blundell, 2011; Rao, Morris, & Sayed, 2011; van der Wende, 2003; Walker 2009). However, the effects of globalization on higher education remain practically unexplored at the empirical level.

At the theoretical level, most literature and research studies on this issue have addressed globalization from a comparative perspective at national and international

levels (Aboites, 2010; Acosta-Silva, 2000, 2002; Koirala-Azad & Blundell, 2011). A large body of literature discusses the effects of globalization in terms of dominant neoliberal practices, such as privatization, marketization, and corporatization of higher education (Acosta-Silva, 2002; Cucchiara, Gold & Simon, 2011; Hershock, 2010; Hutchison, 2011; Judson & Taylor, 2014; Taylor & Judson, 2011; Lynch, 2006; Kleypas & McDougal), using human capital, classic economic, and academic capitalism theories (Ibarra-Colado, 2003; Walker, 2009). Some literature uses economic globalization, trade liberalization, and post-industrial theoretical frameworks (Barrow, Didou-Aupetit, & Mallea, 2003). Despite their different points of reference, theoretical perspectives, and approaches, most authors affirm that economic globalization has contributed to the widespread adoption of a business model of the university that emphasizes knowledge production and the view of education as a commodity (Barrow, Didou-Aupetit, & Mallea, 2003; de Wit, 2011; Murphy, 2006).

The Spelling Commission's report *A Test of Leadership: Charting the Future of US Higher Education* (2006) clearly emphasized the need to improve higher education to ensure U.S. economic global competitiveness and might. In this regard, recent literature on globalization introduced important critical considerations that deserve attention. Hutchison (2011) affirms that, according to the report, higher education institutions are expected to listen primarily to capitalism and to become empowerment tanks of productive workers and citizens. Some authors are critical of the increasing marketization of higher education that diminishes the emphasis on public provision and on the public good (Hershock, 2010; Hutchison, 2011). Likewise, other authors call attention to the shaping effects of markets and globalization in terms of what is taught and what is

researched (Porter & Vidovich, 2000; Weber & Duderstadt, 2008). Others focus on the effects of globalization on higher education with regard to access (van der Wende, 2007), diversity, and equity (Allen, Bonous-Hammarth, & Teranashi, 2006), in particular through the reproduction of class and gender differences (Koirala-Azad & Blundell, 2011).

Despite the wide theorizing on globalization, there is not a clear unified stand in the United States, or elsewhere, on either the discourse of globalization or on the institutional approaches and practices at higher education institutions. The effects of globalization on higher education is an issue that requires particular attention if the United States wants to remain a leading nation in the domain of higher education. It certainly requires attention in countries emulating its higher education model. Hutcheson (2011) argues that U.S. higher education institutions should be leading not only because they are major academic engines to be imitated, but because they add to the quality of life of their students. Past and recent literature on this issue indicates that the discourse on the effects of globalization on higher education remains primarily theoretical. There is not much documentation on what higher education institutions are actually doing at the micro level to respond to the global trends in higher education either in the U.S. or other countries and regions of the world. A major risk of not addressing this issue, as well as the emerging considerations derived from it, is that U.S. higher education institutions, in the absence of a unified stand and clear policy, may become totally corporatized, completely focused on making money (Hersbock, 2010; Hutcheson, 2011; Porter & Vidovich, 2000). Some authors warn that without a clear direction, and in the name of being responsive to the needs that students have to be successful in an ever global job

market, higher education institutions may lose the historic democratic purposes of American higher education (Hersbock, 2010; Hutcheson, 2011; Porter & Vidovich, 2000).

Hersbock (2010) affirms that understanding the effects may contribute to a search for a balance in the U.S. higher education system between what he calls the current tendency of universalized instructional goals, standardized methods, controllably produced competencies and disciplining of differences, and the purposes of higher education that emphasize public provision. Some authors suggest that if this issue is not addressed promptly, foreseeable negative scenarios for the U.S. higher education system may include institutional destabilization, greater differentiation, and the increased dissatisfaction of stakeholders (Porter and Vidovich, 2000). Hutcheson (2011) further warns that if higher education institutions in the United States solely focus on personal and institutional wealth, rather than quality of life and participation in democracy, the United States may be socially vulnerable in the near future.

Ironically, while this is happening in the United States, many countries around the world are increasingly taking the Anglo Saxon model of the research university as a referent for a model shift in search of becoming global. The considerations and concerns raised in the literature invited the researcher to study the perspectives of students to gain insight on the perceived value of the key elements of the model that may contribute to the conversation on the effects of globalization on higher education. Asking graduate students what they value in their graduate education, and what they perceive others value in their graduate education, was intended to unveil considerations with regard to the emulation of the model and the selection of U.S. higher education institutions to conduct

their graduate studies. The following section presents the conceptualization of the model and of its key elements.

### **The Anglo Saxon Model of the University**

Most literature discussing the Anglo Saxon model of higher education emphasizes conceptually one or more elements or characteristics without proposing a conceptual model (Altbach, 1994; Arthur et al, 2007; Arthur & Little, 2012; Finn, 2007; Gill, 2008; van Santen, 2010; Yao, 2009). For example, Arthur et al (2007) remark that higher education in the United Kingdom is characterized by the presence of great numbers of older students in comparison with the traditional younger students in other European systems, the steep reputational hierarchy within the system, and complex graduate recruitment. Arthur and Little (2010) say that two characteristics of the Anglo Saxon model are a low emphasis on vocational education and training, and a “broad educational ‘liberal’ base with less emphasis on subject specific, skills-related content” (p.14). These authors further describe the model as one with a loose fit between academic preparation and a graduate’s professional career. Finn (2007) argues that the clearest feature of the Anglo Saxon model, and central to the European homogenization process, is the three-to-four-year undergraduate degree and the one-to-two-year master’s degree. Gill (2008) mentions several characteristics of the Anglo Saxon model that attract top-level academics: academic flexibility, freedom from teaching tasks, quality of administration, high quality and quantity of research output, healthy competition between universities, promotion, high levels of mobility, and openness to non-nationals. Similarly, Bernasconi (2008) mentions that several of the elements that appeal to universities abroad are the departmental organization, the system of faculty ranking and promotion, a cadre of

professional and highly specialized administrators, curriculum flexibility, academic governance by faculty, the organization structure, and rewards for research and publication (p.41).

Recently, in response to the impact of the knowledge economy on higher education, Wanger, Azizova and Wang (2009) and Wang and Wanger (2011) proposed a set of elements that they suggest constitute the Anglo Saxon model of the research university: 1) using English as the lingua franca, 2) a relatively fixed structure of academic programs, 3) flexible curriculum and growing stratification of programs/institutions, 4) autonomy and decentralization of higher education, and 5) integration of research into higher education. This proposed conceptualization of the Anglo Saxon model, as emerging, lacks empirical support. The discussion by these authors of the proposed conceptualization remains at the level of higher education systems and from the policy makers' perspectives. However, as the only conceptual model in the literature it was selected as the referent in this study for the exploration of the five key elements proposed.

To operationalize their conceptual definitions, a literature review and an online search focused on the discourse of these five elements. Recurrent themes were the increasing marketization of higher education (Judson & Taylor, 2014; Taylor & Judson, 2011), the promotion of higher education as a private good (Cucchiara, Gold & Simon, 2011; Hershock, 2010; Hutchison, 2011; Lynch, 2006), and the promotion of an understanding of knowledge as national capital (Andrews & Criscuolo, 2013; APEC Economic Committee, 2000; Spelling Commission's report, 2006). In the case of the U.S., the emphasis on ensuring economic global competitiveness as the primary role of

U.S. higher education (Spelling Commission's report, 2006) and the continuous decrease in the funding of public higher education have further advanced the marketization of public higher education (Lynch, 2006). All these pressures also advanced the notion of human capital as the source of economic growth, both personal and national. Barrow, Didou-Aupetit, & Mallea (2003) defined human capital as "the knowledge that individuals acquire during lifetime and use to produce goods, services, or ideas in market or non-market circumstances" (p.3). Lower funding forced U.S. higher education institutions to increase tuition and fees, seek other funding sources, and develop practices parallel to those of the business model (Davies & Zafira, 2012). In this context, students are expected to pay more for the knowledge they acquire and that, institutions ensure, will make them more professionally and economically competitive (Lynch, 2006).

The global spread of the knowledge economy and the neoliberal push of entities such as the World Bank (WB), the International Monetary Fund (IMF), the Asia-Pacific Economic Cooperation (APEC) and the Organization for Economic Cooperation and Development (OECD) have contributed to higher education reforms in many countries (Acosta-Silva, 2000; Andrews & Criscuolo, 2013; APEC Economic Committee, 2000; Kent 2005; Alexander, 2000; Sellar & Lingard, 2014; Winkler, 1990) aimed at advancing the understanding of knowledge as national capital. In a report entitled *Peril and Promise: Higher education in developing Countries* (2000) published by the World Bank. the statement is made that:

Private provision of higher education is attractive because it can lead to the delivery of more or better education at the same overall public cost... Private financing is attractive because it reduces the burden on government budgets, and



helps ensure that the costs of higher education are borne by those to whom the benefits accrue. Private financing can be achieved in the context of public provision via tuition and fees, as well as grants and contracts from foundations and industry. In the case of private, not for profit institutions (and, in principle, public institutions as well), income from private endowment funds can also be used to support teaching and research activities. (p.56)

In their push for a model shift, such entities have advanced the understanding of knowledge as private good and knowledge as national capital.

Thus, the literature indicates that understanding knowledge as capital is currently embedded in the Anglo Saxon model of the research university, and it is certainly a key element. Therefore, in addition to the five elements proposed by Wanger, Azizova and Wang (2009) and Wang and Wanger (2011), and derived from the literature review, an element conceptualized as “Knowledge as national capital” was also explored in this study to gain insight into its perceived value. The following section provides an overview of the Latin American model of the university from which universities in Latin America are shifting in search of becoming globally competitive.

### **The Latin American Model of the University**

This section provides a brief look into the model of the Latin American university that since the 1920’s, and until recently, had been the dominant model in the region. The intention is not to conduct a historical review of the Latin American higher education system but to provide a broad context for the dominance and current emulation of the Anglo Saxon model of the research university in the region and particularly in Mexico.

The history of higher education in Latin America is older than that of the U.S. higher education system. The first university Latin American university dates from 1538 and was established by the Spanish conquerors in Santo Domingo, Dominican Republic (Mollis, 2007). The first Mexican university was established in 1540. Mollis (2007) argues that it is common in the literature to refer to Latin American universities as having a Napoleonic model but that this does not reflect the unique role of the universities in the region. She adds that universities in Latin America “have assumed such social responsibilities as preparing political leaders, fostering ideological discussion, promoting social change, safeguarding tradition, and retaining and spreading the local culture” (p.505). She notes that after Latin American countries gained independence from Spain in the 19<sup>th</sup> century, secular professional knowledge characterized the Latin American university model. According to Mollis, this model, commonly referred as “the university of lawyers,” was a model that centered on sharing or controlling political power, exerting a significant influence on the field of ideas, and influencing the system of cultural institutions (2007, p.505).

Argentinean students, at the beginning of the 20<sup>th</sup> century, perceived the university “as an oligarchic ivory tower” and promoted a reform movement at the University of Cordoba in 1918, which is now known as the Cordoba reforms (Bernasconi, 2008; NCLA report on the Americas, 2000). The reforms reflect what some authors call the Latin American model of the university. The key elements of the model are summarized by Bernasconi (2008) as follows:

1. Democratic governance

2. Orientation of the mission of the university toward the solution of the social, economic, and political problems of the country
3. Institution of an extension of the university, alongside those of research and teaching, the purpose of which was to bring the university to the masses
4. Democratization of access through tuition-free education and expansion of enrollments
5. Autonomy from state intervention and academic freedom
6. Selection of faculty through competitive and public contests based on academic merit, and
7. Original research by full-time professors committed to the university (p.31).

Bernasconi adds that this model reached its peak during the 1970s but that economic crises and dictatorships established in the region contribute to its slow erosion. He emphatically states that the rise of the U.S. model of the research university further contributes to the decline of the model. He declares that “success drives imitation, and notwithstanding criticism about the perils looming in U.S. universities’ high exposure to the market, the U.S. research university has become an inspiration for university leaders worldwide” (p.33).

In this regard, Mignolo (2013) states that

...today it is the United States this is mainly leading the way in the transformation of the [Latin American] model into that of the corporate university, a phenomenon that should be seen in the context of other neoliberal developments in Latin America such as the Free Trade Area of the Americas (FTAA) and Plan Colombia (p.11).

Whereas in other Latin American countries the emulation of the Anglo Saxon model of the university centers on specific elements such as the structure of undergraduate education or the organization of accreditation (Bernasconi, 2008), geographic proximity and greater economic interdependency between Mexico and the United States has prompted a wider emulation, particularly by private institutions (Kent, 2005). A deregulated environment and a *laissez-faire* governmental approach further allow both private universities and public universities, to adopt loosely and adapt elements of the Anglo Saxon model as a response to the global environment (Kent, 2005). The following section presents that context.

### **Emulation of the Anglo Saxon Model**

A large percentage of the literature on globalization addresses the emulation of the U.S higher education dominant model in other countries and the strategies conducted in economic blocks of the world to be more competitive in the global market of higher education (Beck, 2012; Gomes, Robertson, & Dale, 2012; Findlay & Tierney, 2010; Huang, 2007; Tierney and Findlay, 2008; Teichler, 2010; Torres & Schugurensky, 2002). In the case of Mexico, Ibarra-Colado (2003) points out that the shift toward new models that privilege academic capitalism (competition for funding, knowledge production, graduate education, etc.) has been promoted for over two decades through policies and programs in an economic framework of privatization, deregulation and competitiveness (p.1065). Diverse authors concur that this framework was accentuated by the North American Free Trade Agreement (NAFTA) signed in the early 90s by the United States, Canada and Mexico, and by the push of external entities, such as the World Bank and the OECD, for modernization of higher education in the region, but particularly that of

Mexico (Aboites, 2010; Altbach, 1994; Arocena & Sutz, 2001; Barrow, Didou-Aupetit & Mallea, 2003; Brunner, 2009; Canen, 2001; Crespi, 2012; Currie & Newson, 1998; de los Reyes, 1997; Jiménez-Ortiz, 2001; Kent, 2005; Lloyd, 2010; Luchilo & Albornoz, 2008; Neu, Silva & Elizabeth, 2008; Sanyal & Martin, 1996; Thorn & Maarja, 2006; Varela, 2008).

In this regard, Bernasconi (2008) argues that a push for modernization is not something new, mentioning the Cordoba reforms that reflect in the Latin American model of the university presented in the previous section. But he does agree with those who claim that the U.S. higher education system—which he says is clearly connected to the economic power of the United States—has increasingly appealed to governments, university leaders, and faculty in Latin America. He adds that the driver for the emulation of the model of the research university in the recent decades is “the preeminence of research in the mission of the top universities in the United States” (Bernasconi, 1998, p.46). In addition, Edwards (2000) raises concerns about the risks of emulating a model that prioritizes science and technology, and that fits the economic development of countries like the United States and Canada, but that may be counterproductive in Latin America. She adds that conflicting perspectives and approaches concerning a uniform approach to education continue to compete in Mexico and in the region. Edwards emphasizes that the U.S. approach to education responds to the values and beliefs of the U.S. middle class that is equally prepared to compete (Westmeyer, 1997; Winkler, 1990). Edwards also emphasizes that in Mexico, as well as in Latin America in general, socio-economic, political, and cultural differences further complicate the adoption of a uniform model. Furthermore, she asserts that “the historical and biological reality of

Latin America is fundamentally distinct from that of North America, and that educational processes have a responsibility to reflect this” (p.68).

Kent (2005) provides an historical context for the emulation of the model in Mexico. He distinguishes three stages of the systemic reform of Mexican higher education. He also provides a broad description of the policy attempts that federal officials have conducted since the late 1980s in what he calls three waves. Kent points out that the first wave occurred from 1989 through 1994 and was characterized by (1) institutional self-evaluation by universities, (2) investment in academic infrastructure and institutional facilities aimed at quality improvement, (3) a focus on competitive funding for institutional development projects, (4) increase of fees in public universities, (5) institutional support for faculty postgraduate studies aimed at academic upgrade, and (6) economic incentives and salary increase for faculty based on performance (p.195).

According to Kent (2005), the second wave took place from 1995 to 2000 as a result of the major Mexican financial crises of the last quarter of the 20<sup>th</sup> century and the push by the OECD through the report on higher education of 1996. The second wave of reforms resulted in policy that focused on the expansion of research capacity through new PhD programs, increased funding for research and a *laissez faire* policy that prompted the rapid expansion of the private sector of higher education. During this second wave, he adds, because public institutions were not responding as expected to policy aimed at quality assurance and improvement, the federal government responded with stricter evaluation procedures, the creation of an accreditation system, increased financial control and audit, and stronger faculty development programs (p.196).

Kent (2005) affirms that the third wave, which started in 2000 and continues today, was set by national policy that emphasizes (1) a new definition of quality assurance in terms of learning, student mobility, curricular flexibility, (2) a greater emphasis on equity and access, (3) accelerating links with business, (4) strategic planning in public institutions that include key performance indicators and program accreditation, (5) increasing differentiation by the creation of a new public sectors (e.g. *Universidades Tecnológicas* and *Universidades Politécnicas*), (6) a greater focus on regulating the private sector, and (6) a greater push for internationalization (pp. 196-197). Federal policy and increasing national competition has pushed universities, both public and private, to look at key elements of dominant models that serve as a referent to respond to this third wave of reforms (Aboites, 2010; Bernasconi, 2008; Ibarra-Colado, 2003; Jiménez-Ortiz, 2001; Kent, 2015).

Ibarra-Colado (2003) states that all policies aimed at modernizing the Mexican higher education system presume the consolidation of a new paradigm of direct capacity of innovation and competitiveness of the country (p.1065). However, Bernasconi (2008) and Aboites (2010) suggest that the process of modernization in Mexico, as well as in the rest of Latin America, has resulted in a growing convergence of university models as a result of universities interacting in “a global institutional environment and a global economy, striving for resources and legitimacy” (Bernasconi, 2008, p.46).

Although some institutions have welcomed what they perceive as the entrepreneurial model of the university, Bernasconi (2008) affirms that only a few Latin American universities have completed their transformation from a knowledge preservation and transmission paradigm to a focus on knowledge production. He argues

that some macro-universities in Latin America maintain some of the elements of the Latin American model, such as participatory governance, free tuition, and institutionalized, which, from his perspective are unlikely to vanish. However, he suggests that the emulation of the U.S. research university model will continue due to the extant global competition environment. The exploration of Mexican students' perspectives of the Anglo Saxon model of the research university—cited in the literature as the primary referent for Mexican higher education reform—was aimed at unveiling existing views that may inform policy making and practice of institutions currently transitioning toward this model and those considering the model as a referent.

### **Declining Trend of International Students' Matriculation**

A recurrent issue in the discussion of globalization and the knowledge economy, which emerged throughout the literature for this study, was student mobility (Barrow, Didou-Aupetit, & Mallea, 2003; de Witt, H., Ferencz, I., & Rumbley, 2012; Findlay & Tierney, 2010; Tierney & Findlay, 2008; Yelland, 2011). According to recent figures, the number of international students studying outside their country of origin has tripled in the past two decades to more than 3.7 million (Yelland, 2011). Several authors suggest that this trend will continue in the present and following decades (de Witt, H., Ferencz, I., & Rumbley, 2012; Findlay & Tierney, 2010; Tierney & Findlay, 2008; Yelland, 2011).

Historically, the United States has played a dominant role, along with Europe and English speaking countries, as a nation that receives a large percentage of international students (de Witt, H., Ferencz, I., & Rumbley, 2012). However, the number of students who select the United States as their destination country is declining and is expected to continue to decline (Yelland, 2011). In the 20<sup>th</sup> century, the percentage of international



students attending U.S. higher education institutions was almost consistently over 30% of the total but this drastically declined to 23% in the 90s (Barrow, Didou-Aupetit, & Mallea, 2003). From 23% in the late 1990s it further declined to 18% of the total number of international students in the past decade (de Witt, H., Ferencz, I., & Rumbley, 2012). Some authors attribute the decline to the increasing competition from higher education of other countries, in particular that from Australia, Russia and many Asia-Pacific countries (Barrow, Didou-Aupetit, & Mallea, 2003; Yelland, 2011), to the September 11 attack on the United States, and to the changes in immigration requirements for international students that derive from it (McCloud, 2004). Unfortunately, this issue has scarcely been addressed at the conceptual level and no empirical studies to date have been conducted in the United States.

De Witt, Ferencz, and Rumbley (2012) affirm that “political and economic arguments dominate much of the discourse on the subject, although the merits of academic quality through diversity also come into play” (p.2). In 2004, McCloud had already raised concerns regarding the impact on diversity of the decline of international students attending U.S. higher education institutions. But again, more than a decade later, the discussion remains at the conceptual level.

The decline in the number of international students selecting U.S. higher education institutions deserves particular attention primarily due to the lack of knowledge on the subject and the possible effects of the trend. Some authors warn that failure to address this issue may have serious repercussions (de Witt, Ferencz, & Rumbley, 2012; Findlay & Tierney, 2010; Tierney & Findlay, 2008; Yelland, 2011). An even more significant and accelerated decline in the number of international students selecting U.S.

higher education institutions is envisioned in the near future. Consequently, the exploration of the perspectives of international and Mexican students—as well as those of American students—could also address this parallel issue by unveiling existing views of the Anglo Saxon model of the research universities that might inform policy makers and practitioners. In addition, the results would contribute to the literature on this critical issue.

### **Chapter Summary**

This chapter presented an overview of the literature on globalization, the effects of globalization in higher education, the key elements of the Anglo Saxon model of the research university and its emerging conceptualization, the historical Latin American model of higher education, and the current reforms in Mexico that produce an increasing emulation of the Anglo Saxon model of higher education. This review of literature revealed the absence of the views of students on the key elements of the Anglo Saxon model. The literature also evidenced the absence of the views of students with regard to the increasing global shift of higher education institutions, such as in the case of Mexico, toward the dominant Anglo Saxon model. Finally, the chapter discussed both student mobility as a recurrent issue and the declining trend in matriculation of international students at U.S. higher education institutions. Chapter III presents the methodology that was used for this study.

## CHAPTER III

### METHODOLOGY

This chapter includes a brief introduction to Q methodology and its basic elements and procedures. It describes the participants, instrument development, and data collection and analysis procedures for this exploratory study. The aim of this study was to explore the perceived value of American, international, and Mexican graduate students of key elements of the Anglo Saxon model of the research university through the use of Q methodology.

#### **Q Methodology**

Q is a systematic methodology that utilizes a sorting technique and a combination of research methods to identify factors or subjective views that groups of individuals hold of a given issue (Brown, 1993; McKeown & Thomas, 1988, 2013; Watts & Stenner, 2012). This methodology has been used widely in the behavioral sciences and related fields for over eight decades (McKeown & Thomas, 2013; Watts & Stenner, 2012). Q methodology is increasingly being used in higher education to explore the perceptions of students and personnel. Q was recently explored for the study of the subjectivity of university students and faculty members on issues such as media access and use (Riggs, 2011), emotion in the higher education workplace (Woods, 2012), student learning in the classroom (Hall, Jensen & McLean, 2013), educators' value orientations of the arts

(Pernu, 2013), and sustaining college students' resiliency (Seaman, 2014). Q method correlates individual perceptions of participants (sorts) to determine if groups of participants (factors) sharing similar perspectives exist. Therefore, Q was determined as the methodology that best served the purpose of identifying the existence of a different viewpoints of the Anglo Saxon model between and among the groups of graduate students that participated.

### **Q Methodology Basics**

Q methodology was developed by William Stephenson in 1935 for the specific study of human subjectivity through the use of a sorting technique and a by-person factor analysis method (Brown, 1993; McKeown & Thomas, 1988, 2013; Watts & Stenner, 2012). Unlike traditional factor analysis that focuses on correlating subjects' test scores on a set of variables to determine relationships among variables, Q factor analysis focuses on the correlation of participants' sorts of an entire set of stimuli (Q set) to identify groups of persons who share a similar perspective about a particular topic (Watts & Stenner, 2012). The Q set is commonly a set of statements selected to sample the discourse on a given issue (concourse). Statistical Q factor analysis of participants' sorts results in the determination of factors that represent points of view and the association of each participant with each point of view (McKeown & Thomas, 2013). Common in Q factor analysis is performance of a principal component analysis and a varimax rotation of the resulting factors. A principal component analysis is a statistical procedure to convert a set of correlated variables into a set of linear values that reduces the data into their principal components. A varimax rotation is a statistical procedure to maximize the association of the sorts to no more than one factor. Q methodology is not aimed at

estimating sample or population statistics but at exploring the various points of views and consensus regarding any issue within a group of participants; therefore, reliability and generalizability of findings are not a primary concern (McKeown & Thomas, 2013; Nicholas, 2011). However, replicability has proven to be the most important type of reliability in Q studies (Brown, 1980, 1993; Nicholas, 2011; Van Exel, 2005). Validity is of no concern in Q methodology either (Brown, 1980; Ramlo, 2012). Q explores (tests) the personal subjective view of each participant on a given issue in search of meaningful associations and not the determination of their validity with regard to external referents (Brown, 1980; McKeown; & Thomas, 2013). To some extent, the primary type of validity in Q methodology is content validity which depends on the accuracy and balance in the representation of the concourse in the sampling Q set.

The basic design of Q methodological research studies involves: (1) the identification of the universe of opinions, perceptions, or reactions regarding the issue under investigation (concourse), (2) the selection of the sample of items (Q set) from the concourse, (3) the purposive selection and recruitment of participants (P set), (4) the creation of the instrument(s) and the tools for data collection such as recruitment script for the sorting structure, conditions of instruction, demographic information needed, record sheet, etc., (5) the selection of the software to perform the analyses, (6) the sorting of the Q set by participants, (7) the recording of participants sorts by the researcher, (8) the entering of sorts into the selected software, (9) the performance of a Q factor analysis, and (10) the analysis and interpretation of resulting factors.

A factor is a broader point of view resulting from the association of viewpoint of each participant expressed in her or his sort. Factor loadings, factor arrays, and Q sort

values, weighted z-scores, and rankings of statements are used for the interpretation of the results. Factor loadings are the scores that reflect the association of each participant to each factor. A factor array is a reconfigured Q sort for a factor based on weighted z-scores, and that characterizes an individual who would load 100% on that factor. A z-score is a measure of standard deviation, which is to say that it indicates the degree of agreement or disagreement to which a statement associates within a factor, e.g., a value of 1.9. A Q sort value (Q-SV) is the value of a statement resulting from the column position in the reconfigured Q sort of a factor and ranging from, e.g., -4 to +4. A statement rank is the numerical rank of a statement that resulted from the ordering of all z-score values of a factor from the highest positive to the highest negative. Final interpretation of the views requires the use of quantitative data and a qualitative interpretation through the narrative of the consensus themes, and the characterization and distinguishing of themes of each factor. Q integrates quantitative and qualitative methods to better address the exploratory research purpose and to produce greater findings (Ramlo, 2012).

The present analysis followed the basic methodological design; however, because the research questions required contrasting three groups of sorters (each participant sorting twice), four analyses were conducted, i.e., four factor analysis were performed. The first three studies, that in subsequent sections of this dissertation are referred to as first-order factor analysis, were aimed at responding to the first research question: “In what ways did values for self associate with values for others in terms of graduate education?” The response to this question included a summary of factor solutions for the three groups.

A second-order factor analysis, as recommended by Watts and Stenner (2102) for contrasting groups, was interpreted to respond to the second research question: “What are the values of graduate education for American, international, and Mexican graduate students?” This was possible because the same Q set and an identical procedure in all three data collection sites were used. All analyses served to respond to the third research question: “In what ways do the Anglo Saxon model and its elements explain the values of American, international, and Mexican graduate students?”

The following sections describe the concourse, the Q set, the tools designed and the procedures followed for recruitment of participants, the participants (P set) and their demographics, and the analyses performed.

### **Instrument Development**

The concourse is the past and current discourse on the topic that can be found in bibliography, documents, the media, the internet, and personal conversations (Brown, 1993; Stephenson, 1935a, 1935b; Watts & Stenner, 2012). The concourse is the universe of which the Q set is selected. For this study, the concourse included the past and current discourse, in the literature and on the web, regarding the six key elements of the Anglo Saxon model the research university selected for exploration in this study.

The Q set is items sampled from the universe (concourse) that the researcher selects and that fairly represents the discourse on the topic (Brown, 1993; Stephenson, 1935a, 1935b; Watts and Stenner, 2012). For this study, the Q set included 36 statements sampled to represent the Anglo Saxon model of the university. The analysis and synthesis of the discourse resulted in a list of over one hundred statements representing proportionately the six elements. After a process of elimination to avoid repetition and





students in three groups of 20 American, 20 international, and 20 Mexican, each sorting twice resulting in 120 sorts. American and international participants were graduate students enrolled for the 2015 spring semester at a U.S. mid-western public research university, referred to hereafter as “APU.” Mexican participants were graduate students enrolled for the 2015 spring semester at a Mexican private non-profit university, abbreviated as “MNU,” located in Central Mexico.

APU is a public research university located in a rural area in the U.S. Mid-West, with a current enrolment of over 30,000 students. MNU is a Mexican Private Non-profit University located in an urban area in Central Mexico, with a current enrolment of over 17,000 students. APU and MNU both grant doctoral degrees. APU and MNU established institutional relationships over a decade ago that include student mobility; summer English language programs at APU for MNU students and faculty members; dual graduate academic programs; and administrative representation at each other’s main campuses. APU ranks among the top 100 U.S. universities. MNU ranks among top 25 Mexican universities and the top 10 private institutions. English is the language of instruction at APU. Spanish is the language of instruction at MNU. Several indicators included in MNU’s current strategic plan, such as partnership with U.S. elite universities, institutional diversification, exponential increase in graduate enrolment, a growing emphasis on research, and an emphasis on university rankings, suggest that MPU is increasingly transitioning to the Anglo Saxon model or at least emulating some of its key elements.

The rationale for investigating the perceptions of students at these two institutions included their type of control, their extant institutional relation (a broad memorandum of

understanding), and the recent shift of MNU in search of increasing its national and international presence and competitiveness. Mexican private universities have experimented at least a partial shift to the Anglo Saxon model springing from loose governmental control in recent years (Kent, 2005).

An invitation to participate was posted on campus at APU using a recruitment advertisement. A snowballing process was used to select other participants at APU; that is, contact cards were given to participants who may know of others in their institution who would be willing to participate. Emails were sent to those individuals suggested by participants. The contact card and the recruitment script were sent to an administrator and professors at MPU via email to request it be forwarded to faculty members and graduate students. The researcher provided information about the study to all participants to assure informed consent to participate. Participants' names were not recorded.

### **Data Collection**

Data were collected at APU and MNU, in the U.S and in Mexico respectively, during the spring 2015 semester. All data for this study were collected in person. The researcher gathered data on campus from 20 American and 20 international participants at APU and from 20 Mexican participants at MPU. Of the 20 American participants, eleven American participants sorted the Q set during one class and nine sorted individually. All 20 international participants sorted the Q set individually. Of the 20 Mexican participants, 18 sorted the Q set at MPU in two classes and two sorted individually.

All participants were asked to sort the Q set twice using two different conditions of instruction. The conditions of instruction were given in participants' native languages.

The first condition of instruction for all participants was to rank-order the Q-set according to the question: What elements of my graduate education are valuable to me? To complete the sorts students were asked to first separate the statements into three piles according to their high, low, or neutral value. Participants were informed that, due to methodological purposes, any statement that was not understandable to them or any statement having conflicting values for them had to be placed in the pile of statements they considered of neutral value.

Then, participants were asked to select the two pieces of paper containing the statements that were most valuable to them from the pile of statements they had presorted as being of a high value, and then glue them on the column with the highest value (4) of the paper boards they were provided. They were informed that the position within the column was not important because any statement in the column would have the same methodological value. Next, they were asked to select the two pieces of paper containing the statements that were least valuable to them from the pile of statements they had presorted as being of a low value, and glue them on the column with the lowest value (-4). They were asked to go back and forth to the piles and glue the statements from the outside columns toward the center. They were informed that once they ran out of statements on any pile, they could use a statement in the neutral value pile and place it in any column according to their perceived value. They were also informed that they could change the position of any statement at any point in the sorting process, even if it was glued on the board.

After all participants glued all 36 statements on the first board, to capture if the higher education values they held for themselves differed from what they perceived to be

the values of other American of Mexican graduate students, they were requested to complete a second Q sort. The second condition of instruction for American participants was to rank-order the Q-set according to the question “What elements of graduate education are valuable for American students?” The second condition of instruction for Mexican participants was “What elements of graduate education are valuable for Mexican students?” All participants followed the same procedures as for the first sorting process.

After completing both sorts, participants were asked to complete the demographic survey which included an invitation to volunteer for a post-sort interview (Appendix C). Identifiers such as name and email address were not requested. Demographics included age, gender, ethnicity, and years as a graduate student at current institution. All participants took about 30 minutes to complete both sorts and the demographic survey.

Participants were asked to volunteer for a post-sorting phone interview by providing contact information on the demographic survey. Only three participants provided contact information for that purpose. None responded to emails sent requesting a time for the phone post-sorting interview. However, 19 participants verbally volunteered to be interviewed in person after the completion of the sorting and the demographic. Sixteen of the 20 international participant international students volunteered for the post-sorting interview. Only two of the 20 American and one of the 20 Mexican participants volunteered to be interviewed. Volunteers were interviewed using an interview protocol after factor analysis results were obtained. All interviews were recorded and transcribed to assist with interpretation of data.

Participants' sorts were recorded on record sheets immediately after completion to ensure accuracy. Participants' records were assigned a one-letter and one- to two-digit code to maintain anonymity. The first letter indicated whether the sorter was an American (A), an international (I), or a Mexican (M) student. The second letter indicates whether the sorter was a male (M) or a female (F). The digits indicated the number of the sorter. All sorts were coded using participants' codes. An additional digit was added to the second sorts of all participants. Sort one of each participant, reflecting a participant's own values of graduate education, was named "sort for self." Sort two of each participant, reflecting a participant's perceived values of what other American/Mexican students value of their graduate education, was named "sort for others" and the code "2." Thus, the first sort of American participant 1 was coded AM-1 and his second sort was coded AM-1-2, and so forth.

### **Data Analysis**

The first step in data analysis included reporting participants' demographics on group tables (Tables 3.1, 3.2 & 3.3). Of the 60 total participants, thirty-three were males and twenty-seven were females. The average age of participants was 34. According to their self-identified ethnicity, the P-set included 26 Hispanic, 21 White, 6 Asian, 3 Indian, 2 Middle Eastern, 1 American Indian, and 1 Asian African. Participants' average number of years in their current programs was three. Of the 20 American participants, 14 were males and 6 were females. The average age in this group was 36. According to their self-identified ethnicity, 18 were White, 1 was Hispanic, and 1 was American Indian. Of the 20 international participants, 14 were males and 6 were females. The average age in this group was 33. According to their self-identified ethnicity, 6 were Asian, 5 were Hispanic,

Table 3.1

*Demographic information for American sorters*

Participant Code	Ethnicity	Gender	Age	Years as a graduate student at current institution
AM-1	White	M	36	4
AF-2	American Indian	F	38	3
AM-3	White	M	36	3
AM-4	White	M	36	2
AM-5	Hispanic	M	34	3
AF-6	White	F	40	5
AM-7	White	M	28	3
AM-8	White	M	47	2.75
AM-9	White	M	47	6
AF-10	White	F	47	7
AM-11	White	M	33	4
AM-12	White	M	33	0.5
AM-13	White	M	39	1
AM-14	White	M	33	1
AM-15	White	M	46	0.5
AM-16	White	M	54	1
AF-17	White	F	37	1
AF-18	White	F	34	0.5
AF-19	White	F	29	3
AM-20	White	M	32	1
		Male=14 Female=6	$\bar{x}$ =38.0	$\bar{x}$ =2.6

Table 3.2

*Demographic information for international sorters*

Participant Code	Ethnicity	Gender	Age	Years as a graduate student at current institution
IF-1	Asian African	F	34	2
IM-2	Hispanic	M	32	4
IM-3	Asian	M	50	5
IM-4	Hispanic	M	29	4
IF-5	Hispanic	F	56	5
IM-6	Asian	M	24	1
IF-7	Asian	F	23	4.5
IM-8	Asian	M	28	4
IM-9	Middle Eastern	M	30	5
IM-10	Middle Eastern	M	31	3.5
IF-11	White	F	35	8
IM-12	White	M	37	5
IM-13	Asian	M	44	7
IM-14	Indian	M	29	6
IM-15	Indian	M	28	1
IF-16	Asian	F	30	5
IF-17	Hispanic	F	28	1.5
IM-18	Hispanic	M	27	0.5
IM-19	White	M	42	7
IM-20	Indian	M	24	2
		Male=14 Female=6	$\bar{x}$ =33.1	$\bar{x}$ =4.1

Table 3.3

*Demographic information for Mexican sorters*

Participant Code	Ethnicity	Gender	Age	Years in current graduate program
MM-1	Hispanic	M	31	1.5
MF-2	Hispanic	F	26	1.5
MF-3	Hispanic	F	31	1.5
MF-4	Hispanic	F	25	1.5
MF-5	Hispanic	F	43	2.5
MF-6	Hispanic	F	33	1.5
MM-7	Hispanic	M	27	1.5
MM-8	Hispanic	M	39	1.5
MF-9	Hispanic	F	45	2
MF-10	Hispanic	F	24	1.5
MF-11	Hispanic	F	23	1.5
MM-12	Hispanic	M	26	3.5
MF-13	Hispanic	F	36	2
MF-14	Hispanic	F	35	6
MF-15	Hispanic	F	41	3
MF-16	Hispanic	F	31	1.5
MF-17	Hispanic	F	28	2
MF-18	Hispanic	F	28	2
MF-19	Hispanic	F	41	7
MM-20	Hispanic	M	31	2.5
		Male=5 Female=15	$\bar{x}=32.2$	$\bar{x}=2.4$

3 were Indian, 3 were White, 2 were Middle Eastern, and 1 was Asian African. Of the 20 Mexican participants, 15 were females and 5 were males. The average age in this group was 32. All Mexican participants self-identified as Hispanics.

The researcher selected PQMethod software, recommended by Watts and Stenner (2012). The most recent version of PQMethod (2.35) was downloaded free of charge from <http://schmolck.userweb.mwn.de/qmethod/downpqwin.htm>. This software was utilized to perform a principal components factor analysis of all 120 Q sorts to determine the distribution of the data. With the number of sorts (120) exceeding the number of statements, the variability between sorts of individuals and between the groups of individuals was largely lost. Therefore, to contrast the first sort (the participant experience) with the second sort (the perceptions of other graduate experience) and to contrast the views across the three groups, a second-order factor analysis were conducted.

A first-order factor analysis was conducted for the 40 sorts (20 for self and 20 for others) for each of the three groups to determine if participants in each group held more than one view of the Anglo Saxon model of the research university. This meant: (1) creating a PQMethod project for each group, (2) entering the 40 sorts of each group in each project, (3) performing a principal components factor analysis and varimax rotation for each group, and (4) performing a final z-score calculation of the rotated factors. A three-factor solution resulted for each group indicating that participants in each group had three different views of the Anglo Saxon model of the research university. A threshold of 0.45 significance (when rounded to two digits) to flag manually the defining sorts for all nine views.

A second-order factor analysis was conducted to contrast the nine different views of the Anglo Saxon model of the research university that existed among the three groups of participants. This meant: (1) creating a new PQMethod project, (2) treating the nine view arrays (three from each group) as sorts, (3) entering them into the software, (4) performing a principal component factor analysis with a varimax rotation, and (5) interpreting the reconfigured factor array for each of the rotated factors. A three-factor solution resulted indicating that three distinct views existed among the three groups. A threshold of 0.45 significance (when rounded to two digits) was used to flag manually the defining views for each factor.

For analysis and interpretation of the three among-group views, the researcher started by creating the model sorts based on the statements' rankings and z-scores for each view and factor (Appendix D). Next, the researcher made observations on the loadings of each group view (first-order factor analysis) and each factor (second-order



factor analysis) to determine if groups loaded significantly in more than one view (confounded sort). Then, the researcher focused on defining statements, high and pure loaders (exemplars) for each factor to observe if more than one group defined each of the three among-group views. Special attention was given to consensus statements to gain insight on commonalities among the views, and to confounded and non-defining sorts, to gain insight on their relationship with defining sorts. Finally, the researcher proceeded to the interpretation of second-order views. Factor loadings informed the structure of the views for self and for others within each group of participants. Factor arrays, statement z-scores, Q sort values, and ranks, demographic data, and post-sort interview comments informed the interpretation of three among-group views.

### **Chapter Summary**

This chapter presented the methodological design for this study. The chapter provided an introduction to Q methodology and method, including a discussion of Q methodology basics needed for methodological research. It presented the particular determination of the concourse and the selection of the Q set for this study. Also included were description and illustrations of the tools utilized in this research, such as the instrument, the researcher's record sheet, and recruitment tools. The procedures for participant recruitment, data collection, and data analysis were presented. This chapter ended with a description of the data analysis conducted and a brief introduction to the findings. Chapter IV presents the results of the first-order factor analysis and the second-order factor analysis of this research study.

## CHAPTER IV

### RESULTS

This chapter presents the factor structure of the first-order factor analysis and the findings of the second-order factor analyses aimed at responding to the three research questions that guided this study. A total of 60 participants in three groups (20 American, 20 Mexican, and 20 international students) sorted 36 statements twice for a total of 120 sorts. PQMethod software was used for analyses of their responses with a principal component. A varimax rotation was performed for all results to shorten the number of factors and increase their reliability. All participants completed a demographic survey. Demographic information provided was used for the interpretation of the results. A total of 19 brief post-sorting interviews were conducted. Relevant interview data informed the interpretation of the results. The *z*-scores calculated for each statement for each resulting array along with the simultaneous array position ranging from -4 to +4 were used for the interpretation of the views.

#### **First-Order Factor Analysis**

A first-order factor analysis was performed to explore the association of values for self with values for others in terms of graduate education among each group of participants. Toward this end, the researcher conducted a factor analysis for each group of participants (Tables 4.1, 4.2, & 4.3). Three factors per group were found for a total

Table 4.1

*Factor matrix for American students*

Q Sort	Factors			
	1 (Self)	2 (Others)	3 (Others)	
AM-1	0.2050	0.3342	0.4738X	
AM-1-2	-0.0950	0.3750	0.1667	
AF-2	0.5917	0.0776	0.6876	
AF-2-2	0.0779	0.6668X	0.2716	
AM-3	0.7759X	0.0101	0.4418	
AM-3-2	-0.0874	-0.2961	0.3107	
AM-4	0.7775X	0.0185	0.0749	
AM-4-2	0.2438	0.7070X	-0.0076	
AM-5	0.5616X	0.1906	0.1811	
AM-5-2	0.0192	0.6572X	0.0862	
AF-6	0.7287X	-0.0215	0.3520	
AF-6-2	-0.4230	0.6275X	-0.1584	
AM-7	0.6561	0.5070	0.1091	
AM-7-2	0.2032	0.1077	0.4773X	
AM-8	0.6052	0.2236	0.5053	
AM-8-2	0.4329	0.2391	0.7063X	
AM-9	0.5926	0.5411	0.1067	
AM-9-2	0.4651	0.4241	0.5074	
AF-10	0.6606X	-0.0702	0.3765	
AF-10-2	0.2786	0.4309	0.2157	
AM-11	0.5448	-0.1637	0.7195	
AM-11-2	0.3958	0.3233	0.7547X	Exemplar
AM-12	0.6969X	0.1526	0.3930	
AM-12-2	-0.2453	0.4308	0.6523X	
AM-13	0.6645	0.4979	0.1628	
AM-13-2	0.6277	0.5431	0.1995	
AM-14	0.4116	0.2483	-0.0602	
AM-14-2	0.3031	0.2150	0.4428	
AM-15	0.6225X	0.2753	0.3890	
AM-15-2	0.2234	0.4548	-0.6195	
AM-16	0.4601X	-0.0581	0.1618	
AM-16-2	0.0708	0.8071X	-0.0445	Exemplar
AF-17	0.8217X	-0.2227	-0.0832	Exemplar
AF-17-2	0.0398	0.4466X	0.0558	
AF-18	0.7393X	0.2880	-0.0078	
AF-18-2	0.1460	0.7631X	0.1428	
AF-19	0.5502	0.3369	0.5640	
AF-19-2	0.4649	0.4222	0.5714	
AM-20	0.6757	-0.0638	0.5923	
AM-20-2	0.1791	0.7003	0.4544	
<b>% of Explanatory Variance</b>	<b>25</b>	<b>17</b>	<b>16</b>	
An X indicates a defining sort				

Table 4.2

*Factor matrix for international students*

Q Sort	Factors			
	1 (Self & Others)	2 (Others)	3 (Self)	
IF-1	0.8001X	-0.1399	0.1873	Exemplar
IF-1-2	0.7628X	0.0844	-0.1223	
IM-2	0.5503	0.1053	0.6562	
IM-2-2	0.0552	0.3352	-0.6358X	
IM-3	0.2711	0.3572	0.3695	
IM-3-2	0.3514	0.4636X	0.0424	
IM-4	0.4304	0.0615	0.4762X	
IM-4-2	0.3547	0.4043	-0.5831X	
IF-5	0.5091	-0.0821	0.6637	
IF-5-2	0.5695X	0.4376	0.0803	
IM-6	0.5635	0.2270	0.4862	
IM-6-2	0.7649X	0.0088	0.1718	
IF-7	0.5043	-0.0738	0.6660	
IF-7-2	0.8438X	-0.1515	0.3047	
IM-8	0.6609X	0.2803	0.2714	
IM-8-2	-0.0308	0.6775X	-0.0767	
IM-9	0.4782X	0.2926	0.2804	
IM-9-2	-0.0204	0.7464X	-0.2545	Exemplar
IM-10	0.4297	0.1191	0.1210	
IM-10-2	-0.0155	0.5757X	0.0021	
IF-11	0.6456X	0.2026	0.2376	
IF-11-2	0.2136	0.6316X	-0.2878	
IM-12	0.2386	0.1842	0.7304X	
IM-12-2	0.3033	0.6226X	0.0303	
IM-13	0.1530	-0.0411	0.8819X	Exemplar
IM-13-2	0.6861X	0.1355	0.1759	
IM-14	0.5781	-0.3119	0.5165	
IM-14-2	0.3997	0.4313	0.2541	
IM-15	0.4692	0.0849	0.5961	
IM-15-2	0.7004X	0.1962	0.0206	
IF-16	0.6318	-0.0688	0.4528	
IF-16-2	0.6678X	0.0923	0.1516	
IF-17	0.7167X	-0.3872	0.2305	
IF-17-2	0.0938	0.6616X	0.3604	
IM-18	0.3120	-0.2463	0.5977X	
IM-18-2	0.5902X	0.3411	0.3780	
IM-19	0.1939	0.0408	0.7209X	
IM-19-2	-0.0514	0.4286	0.0415	
IM-20	0.6941X	-0.1465	0.3980	
IM-20-2	-0.0588	0.3773	-0.1012	
<b>% of Explanatory Variance</b>	<b>25</b>	<b>12</b>	<b>17</b>	
An X indicates a defining sort				

Table 4.3

*Factor matrix for Mexican students*

Q Sort	Factors			
	1 (Self)	2 (Others)	3 (Self)	
MM-1	0.8154X	-0.2319	0.0115	Exemplar
MM-1-2	0.1623	0.7164X	-0.0789	
MF-2	0.8477X	-0.1048	0.2780	
MF-2-2	0.0965	0.7062X	0.0691	
MF-3	0.8250X	-0.0526	0.1998	
MF-3-2	-0.3787	0.5682X	-0.0494	
MF-4	0.6960X	0.1510	0.1305	
MF-4-2	0.5994X	0.3415	0.1524	
MF-5	0.5082X	0.0315	0.2498	
MF-5-2	0.4379	0.2631	-0.0322	
MF-6	0.4572X	0.1836	0.0763	
MF-6-2	0.3660	0.2501	0.1903	
MM-7	0.7786X	0.1946	0.2240	
MM-7-2	0.1711	0.5625X	0.3416	
MM-8	0.7776X	0.1247	0.2284	
MM-8-2	0.4717	0.4807	0.4196	
MF-9	0.4701X	-0.1923	-0.1542	
MF-9-2	-0.0995	0.5894X	0.0733	
MF-10	0.5314	0.0666	0.5275	
MF-10-2	0.4997	0.1231	0.5665	
MF-11	0.2910	0.1529	0.5774X	
MF-11-2	-0.0087	0.8219X	0.0084	Exemplar
MM-12	0.1428	-0.2972	0.6938X	Exemplar
MM-12-2	0.4517	0.5250	0.4038	
MF-13	0.5468X	0.2274	0.0933	
MF-13-2	-0.3264	0.6045X	-0.0192	
MF-14	0.7789X	0.0037	0.0563	
MF-14-2	0.0369	0.7751X	0.0126	
MF-15	0.4037	0.1527	0.2170	
MF-15-2	0.5157	0.6370	0.0859	
MF-16	0.5928X	0.1744	0.3367	
MF-16-2	0.1861	0.7496X	-0.1632	
MF-17	0.7380X	-0.0747	0.0110	
MF-17-2	-0.0761	0.5808	-0.4511	
MF-18	0.3937	0.0457	0.0157	
MF-18-2	0.2456	0.3481	0.1534	
MF-19	0.2138	-0.5140X	-0.0542	
MF-19-2	0.1288	0.3993	0.3400	
MM-20	0.6436X	-0.1793	0.1454	
MM-20-2	-0.2430	0.5312X	0.1149	
<b>% of Explanatory Variance</b>	<b>24</b>	<b>18</b>	<b>7</b>	

An X indicates a defining sort.

of nine factors for all groups. Of the 20 American participants, 15 defined at least one of the three factors in their group, four were confounded (defining more than one view), and one defined no factor. Of the 20 international participants, 19 defined at least one of the three factors in their group and one was confounded. Of the 20 Mexican participants, 18 defined at least one factor, one was confounded, and one defined no factor.

### **Research Question 1**

The first research question of this study was: In what ways did values for self associate with values for others in terms of graduate education? The first-order factor analysis revealed three factors representing different associations of values for self and among each group of participants. The following sections describe the associations in the three groups.

#### **American Students' Factors for Self and for Other American Students**

American students, as a group, had one factor that expressed values for self and two factors that expressed their perceived values for other American students. The individual analysis indicated that seven participants (35%) had defining sorts for two factors. It is important to note that all of them had defining sorts for self loading on factor 1 and defining sorts for other American students loading on factor 2. All of the 10 sorts defining factor one were for self. All 7 defining sorts of factor 2 were for other American students. Out of the 5 sorts defining factor 3, 4 were for other American students. According to these associations, the values expressed in factor 1 were exclusively for self, those expressed in factor 2 were exclusively for others, and the ones stated in and factor 3 were almost exclusively for others (80%). These associations show that the

values of graduate education for self were perceived by the participants as quite different from the values of other American students.

### **International Students' Factors for Self and for Other American Students**

Surprisingly, international sorters, as a group, had one mixed factor for self and others, one factor for other American students, and one factor for self. Individual analysis of participant factor loadings indicated that: nine (45%) had defining sorts for self and other American students; four had defining sorts for self loading on factor 1 and defining sorts for American students loading on factor 2; two had defining sorts for self loading on factor 3 and defining sorts for other American students loading on factor 1; one had a defining sort self loading on factor 1 and a defining sort for other American students loading on factor 2; one had both sorts loading on factor; and one had both sorts loading on factor 3. Defining sorts for each factor indicated that participants perceived that the values expressed in factor 1 were shared by international and American students. Remarkably, out of the 14 sorts defining factor 1, 6 were for self and 8 for other American students. In contrast, all defining sorts for factor 2 were exclusively for American students. Four out of six defining sorts for factor 3 were for self and two for American students which made it a factor mostly for self. These associations revealed that although international students perceived that there were some coincidences between their values of graduate education and those of American students, they also perceived that significant differences exist.

### **Mexican Students' Factors for Self and for Other Mexican Students**

Mexican students, as a group, defined two factors for self and one factor for other Mexican students. Individual analysis indicated that eleven (55%) had defining sorts for

self and for other Mexican students. Nine of them had defining sorts for self loading in factor 1 and defining sorts for other Mexican students loading in factor 2. Only one had both defining sorts for self and for other Mexican students loading in factor 1. Only one had a defining sort for self loading on factor 3 and a defining sort for other Mexican students loading on factor 2. Defining sorts for the three views indicate that views 1 and 3 were perceived by these sorters to express the values primarily for self. Out of the 15 defining sorts for factor 1, 14 were for self and only one for others. All of the 11 defining sorts for factor 2 were for others. The two defining sorts for factor 3 indicated that this view is exclusively for self. Results indicated that there are clear that Mexican participants perceived that they held different values of graduate education for self and for other Mexican students.

Results of the first-order factor analysis indicated that different associations exist between the perceived values of graduate education for self and for others within each group. In the case of American and Mexican students the association was mostly distancing in their groups, that is to say the values for self are perceived as distinct from the values for others. For American students, the values of graduate education for self of and for other American students clearly loaded in different factors. Similarly, for Mexican students, the values for self were perceived to be very different from what other Mexicans value of their graduate education with only one participant perceiving that they are same. In the case of international students there were several and complex associations that revealed heterogeneous values of participants for self, but also for other American students. Once three factors were found for each group, the next step was to



explore the broader views of the value of graduate education for all participants in this study.

### Second-Order Factor Analysis

A second-order factor analysis was conducted to explore the view among the three groups of participants with regard to the values of graduate education. The factor analysis of participants' group views resulted in a three factor solution (Table 4.4). Of the total 9 factors within the groups, 7 of them defined three factors among the groups and 2 were confounded. The three factors of American students were defining of two views among the groups. Two of the factors of international and Mexican students were defining of two views among the groups. International and Mexican students had one confounded view each. Factor one was defined by View 1 (self) and View 3 (other American students) of American students, View 1 of international students (mixed view for self and

Table 4.4

*Factor loadings by group views*

Q Sort	Factors			
	1	2	3	
1 American View 1 (Self)	0.8500X	0.0096	0.1467	
2 American View 2 (Other American)	0.0927	0.8957X	-0.1676	Exemplar
3 American View 3 (Other American)	0.7173X	0.2676	-0.3609	
4 International View 1 (Self & Other American)	0.9043X	0.0940	-0.2029	Exemplar
5 International View 2 (Other American)	0.0174	0.8900X	-0.0723	
6 International View 3 (Self)	0.5964	-0.1048	0.6981	Exemplar
7 Mexican View 1 (Self)	0.8411X	0.0478	0.2663	
8 Mexican View 2 (Other Mexican)	0.1947	0.2101	-0.7418X	
9 Mexican View 3 (Self)	0.1872	0.6032	0.6281	
<b>% of Explanatory Variance</b>	<b>36</b>	<b>23</b>	<b>19</b>	

other American students), and View 1 (self) of Mexican students. Factor 2 was defined by View 2 (other American students) of American students and View 2 (other American students). Factor 3 was apparently defined by View 2 of Mexican Students (for other Mexican students); however, a deeper analysis showed that the factor was defined by View 3 of international students (for self) and View 3 of Mexican students (for self).

The first factor had a strong explanatory variance of 36% (slightly lower compared to its 38% unrotated variance) and four out of the five sorts loading highly on it were defining. The second factor had a rotated variance of 23% (equal to its 23% unrotated variance) and had two defining sorts. The third factor had a significant rotated variance of 19% (slightly higher compared to its 17% unrotated variance) although only one defining sort loaded on it. Factors one and two had a correlation value of 0.159, one and three had a negative correlation of -0.199, and two and three had also a negative correlation of -0.247. Their low and negative correlation indicated that all three views of the value of graduate education among the groups were significantly different.

## **Research Question 2**

The second research question of this study was: What are the values of graduate education for American, international, and Mexican graduate students? The analysis of the data revealed that three factors represent distinct values of graduate education among the three groups of participants. The following sections describe the factors that were named in accordance to their primary value orientation.

### **Factor 1: Knowledge Driven**

Four group views defined this factor. Two of them were the strongest views for self of American and Mexican students. One defining view was the international

students' strongest mixed view for self and for other American students. One more defining sort was the second view of other American students by American sorters. In turn, a total of 44 sorts defined these four views, 30 were views for self (10 American, 6 international, 14 Mexican), 13 were views for other American students (5 by American, 8 by international), and one for other Mexican students. Forty-two (70%) out of the 60 participants in this study defined the four views: 15 American, 13 international, and 14 Mexican. Twenty-three were males and 19 females. Two of the four exemplar sorters (those with the highest loadings in their views) were males and two were females. The exemplar *Knowledge Driven* student is either a male or a female graduate student from the U.S., Mexico, or international student in the U.S.

*I am in graduate education for the sake of knowledge but some money does not hurt*, best describes what distinguishes this view (Table 4.5). Compared to the other two views, this view emphasizes the importance of acquisition and creation of knowledge, but also recognizes that knowledge will translate in economic advancement. All six statements under “Knowledge as national capital” (KNC) were assigned top array positions. Another high rated element was “Integration of research into higher education” (IRH), especially with regard to the development of research skills, integration of research in the classroom, and publication. To a fairly lower degree, those who share this view valued “Flexibility of curriculum and growing stratification of programs” (FSP), exclusively with regard to flexibility of curriculum. Structuring of academic programs in three tiers (SAP) received mostly neutral values. Promotion of autonomy and decentralization of higher education (PAD) received mostly negative values. Use of English as lingua franca (ELF) received negative values for all statements.

Table 4.5

*High positive and negative statements for knowledge driven orientation*

Knowledge Driven				
S#	Most Like Statements	Rank	Q-SV	z-Score
1	[KNC] Acquiring knowledge that makes me more competitive	1	4	1.80
25	[KNC] Getting preparation to be a professional leader	2	4	1.74
30	[IRH] Taking classes that integrate theory, research and practice**	3	3	1.48
24	[IRH] Improving research skills**	4	3	1.36
20	[KNC] Learning new knowledge in class*	5	3	1.34
13	[KNC] Obtaining a university degree to get a better job	6	3	1.17
7	[KNC] Creating new knowledge*	7	2	1.08
12	[IRH] Publishing research studies	8	2	0.92
16	[FSP] Conducting multidisciplinary work	9	2	0.78
33	[KNC] Studying to succeed economically**	10	2	0.71
S#	Most Unlike Statements	Rank	Q-SV	z-Score
23	[PAD] Getting a degree without government intervention	27	-2	-0.72
32	[PAD] Completing administrative processes easily	28	-2	-0.82
11	[PAD] Studying at a university with little bureaucracy	29	-2	-0.94
34	[ELF] Getting university instruction exclusively in English**	30	-2	-1.28
19	[ELF] Not using materials in languages other than English**	31	-3	-1.28
8	[ELF] Studying in English speaking countries**	32	-3	-1.31
4	[PAD] Studying a program that has minimal legal regulations	33	-3	-1.33
26	[ELF] Improving my English proficiency	34	-3	-1.45
3	[FSP] Taking courses without prerequisites*	35	-4	-1.47
21	[APS] Studying more than four years at a university	36	-4	-1.53
Asteriks indicate distinguishing statements for this view; (*) significance at $P < .05$ ; (**) $P < .01$ Both the Factor Q-Sort Value (Q-SV) and the z-Score (z) are shown				

The strongest positive statements were number 25 “Acquiring knowledge that makes me more competitive” and number 1 “Getting preparation to be a professional leader,” both for KNC, pointing that acquiring knowledge is key for these sorters to become professional leaders and more competitive. However, when contrasted with

statement 21 “Studying more than four years at a university,” which had the strongest negative value, these sorters seem to negatively value long programs. They seem open to learning the most in the shortest time. Their focus on knowledge and skills development seems to affect their negative value of “Promotion of autonomy and decentralization” and their indifferent value of “Structuring of academic programs,” both with regard to institutional matters. In this view, knowledge in the context of certification and following an institutional academic sequence is not important. For those in this view, having a graduate degree is not as important as getting knowledge and developing skills in graduate education. Illustrative comments of participants supporting this view included the following:

- Hum, my arrogant Americanism was apparent on the sorting for Americans...I did place people’s view of being economically advantaged based more on the American values than my own, so in some ways I saw in them these but in me, much different, because I value research and I value integrating of theory and practice and things like that (AF-2, March 10, 2015, personal communication).
- For me, personally, hum, being an American and having a stereotype of the will to do things to be competitive and make money, hum, it kind of confirmed why I’m here, because my last card was doing it for the pay. And so, it’s interesting I want to make money, obviously, but that tells me that maybe there’s more to it than just, hum, economic reason (AM-1, February 15, 2015, personal communication).
- English proficiency, I thought that was very attracting to me because there’s this assumption that everything will be in English, you know what I mean? And so

this sort of, kind of this is English a privilege thing? Hum (laughs). So, dominant language was a... was very opening... an opening experience (AF-2. March 10, 2015, personal communication).

- Understanding different languages, the proficiency in English, hum, that could be something as well, aside from the leadership, is for American students is to push them, hum, to learn more about different languages and understanding different cultures (AM-1, February 15, 2015, personal communication).
- To me I kind of answered it from both perspectives but really kind of as one since I'm an American student but I don't think the difference... I don't think there were any differences in, hum, the autonomy, in the independent part of it. I think there were differences in the economic aspect of it and the bureaucratic aspect of it, the second time around (AM-1, February 15, 2015, personal communication).
- I've always thought that, hum, the economic, I'm not here for the economics, I mean, for getting a better job but also you always see the reality and it makes you, OK, it is supposed... it's my ideal that I'm not here for the money but also I know that it is a goal even if I don't have it in my mind (IM-17, April 5, 2015, personal communication)

#### **Narrative of view based on data.**

The following themes emerged during the analysis of this view.

*Some money does not hurt.* “Obtaining a university degree to get a better job” (statement 13) and “Studying to succeed economically” (statement 13) received high values by sorters in this view which indicates that they recognize that even if knowledge drives their pursuit of higher education, money comes along. All four defining sorts of

this view supported that “Knowledge as national capital” was highly valued as both, a means for the acquisition of knowledge and a means for the acquisition of capital.

*Research yes, writing not much.* Although statements like “Improving research skills” (statement 24) and “taking classes that integrate theory, research and practice” (statement 30) received high positive values, the three highest sorters, including the exemplar, in this view also assigned array position of 0 to “Writing a thesis or dissertation.” The purest loader in the highest view defining this factor also assigned a value of 1 to “Conducting research in class” (statement 18) and “Studying a program that emphasizes research over teaching” (statement 5). Results suggest that sorters in this view privilege consumption of research over production. This was particularly true for Mexican students who assigned an array position of 0 to all research-production related statements. In contrast, all other defining sorts assigned high positive array positions to “Publishing research studies” (statement 12). This seems to indicate that even though they do not favor much academic writing, they are aware of the importance of publication of scholarly work.

*The end is what matters, not the means.* “Conducting multidisciplinary work” (statement 16) and “Studying a flexible graduate program” (statement 28) were assigned some positive value (2 and 1 respectively) indicating that flexibility is of some importance. However, “Being able to transfer from one institution to another” (statement 10), “Choosing a program based on university rankings” (statement 36), “Taking distance learning classes” (statement 22), and “Studying a flexible graduate program” received neutral values ranging from -1 to 1. All this indicates that students defining this view have a neutral perspective with regard to curriculum flexibility, and the stratification of

programs and institutions, and that these are not issues that influence their selection of a program or institution. It was surprising, however, that “Taking courses without prerequisites” (statement 3) had the lowest possible array and the second lowest z-score (-1.471), which suggests that students sharing this orientation value the academic structuring of coursework.

*No housekeeping, please.* Knowledge driven students focus on knowledge and research and do not care much about institutional bureaucracy, legal regulations involved in their program, or administrative processes. “Studying a degree that has minimal legal regulations” (statement 4), “getting a degree without government intervention” (statement 23), “Completing administrative processes easily” (statement 32), and “Studying at a university with little bureaucracy” (statements 11) all received negative values. To some extent they value autonomy at the individual level. “Getting preparation to be autonomous” (statement 29) and “Developing independent learning” (statement 17) received values ranging from 0 in the exemplar sort to 3 and 4 respectively in other defining sorts of this view.

*English is NOT completely lingua franca for us.* All statements related to English as lingua Franca were assigned negative values in this view. Only 15 out of the 42 students defining this view were native speakers of English, but all were master’s and doctoral students which may explain why the predominance of English in their graduate education is a given for them and improvement is not a priority. “Improving my English proficiency” (statement 26) had a negative factor value of -3. “Studying in English speaking countries” (statement 8) was also assigned a negative value of -3 indicating that sorters of this view do not pay much value on student mobility to countries where English



is the local language. This is particularly relevant because over 64% of those who indicated that mobility to English speaking countries is not a priority for them were international and Mexican students. Another surprising negative value of -3 was assigned to statement 19 “Not using materials in languages other than English,” indicating that knowledge driven sorters would highly welcome materials in languages other than English in their graduate programs. The low value to “Publishing in English” suggests that even if these students are highly interested in the publication of scholarly work that publishing in English is not a priority for them. Equally surprising were the negative values assigned to statements 14 (-1) and 34 (-2), indicating that “Reading materials exclusively in English” and “Getting instruction exclusively in English” were not perceived as having much value, even by a large proportion of the native speakers of English.

*It is not about time; it is about quality.* Knowledge driven students assigned the lowest possible array position and lowest z-score value (-1.532) to statement 21 “Studying more than four years at a university” suggesting that although they highly value acquiring knowledge and developing skills, they do not favor long academic programs. Statement 15 “Following the bachelor-master-doctorate sequence” had an array position of -1 which also suggests that even if participants are already in the upper tiers of the sequence they do not necessarily support the length of the cycles.

This view reflects a pragmatic view of higher education. These students are in graduate education primarily for the sake of knowledge, skills development, and professional preparation. Nevertheless, they value economic advancement as well. They do not pay much attention to institutional matters such as bureaucratic processes or legal

regulations. They seem to have a rather neutral value for curriculum flexibility and stratification of programs and institutions. Students sharing this view value individual autonomy but do not care much about institutional autonomy. They want to acquire knowledge but are not much willing to produce it. For them, English is not necessarily the preferred language of instruction and publication. They want the best knowledge and skills in the shortest time.

### **Factor 2: Money Driven**

Two group sorts defined this view; both were the strongest views for others by American and international participants. Fourteen (23.3%) out of the 60 participants in this study defined this view, 7 American and 7 international. Eight of them were males (3 American, 5 international) and six were females (4 American, 2 international). The two exemplar sorters (those with the highest loadings in their views) were males. All 14 defining sorts of this view were second sorts of all participants, that is to say, views for others. According to the second condition of instruction for American and international students, this factor expressed their point of view about how other American students value graduate education. Therefore, the exemplar money driven student is either a male or a female American graduate student.

*I am investing in graduate education because I want a better paid job* best describes what differentiates this view (Table 4.6). Compared to the other two views, this view emphasizes the importance of acquisition of knowledge for economic advancement. Five out of the six statements for “Understanding of knowledge as national capital” (KNC) were assigned top array positions, primarily those related to economic purposes. “Structuring of academic programs in three tiers” (SAP) was highly valued in terms of

Table 4.6

*High positive and negative statements for money driven orientation*

<b>Money Driven</b>				
<b>S#</b>	<b>Most Like Statements</b>	<b>Rank</b>	<b>Q-SV</b>	<b>z-Score</b>
13	[KNC] Obtaining a university degree to get a better job	1	4	1.92
33	[KNC] Studying to succeed economically**	2	4	1.92
9	[APS] Having a graduate degree*	3	3	1.44
1	[KNC] Acquiring knowledge that makes me more competitive	4	3	1.21
34	[ELF] Getting university instruction exclusively in English	5	3	1.19
25	[KNC] Getting preparation to be a professional leader	6	3	0.97
8	[ELF] Studying in English speaking countries	7	2	0.95
19	[ELF] Not using materials in languages other than English	8	2	0.95
36	[FSP] Choosing a program based on university rankings*	9	2	0.74
3	[FSP] Taking courses without prerequisites*	10	2	0.73
<b>S#</b>	<b>Most Unlike Statements</b>	<b>Rank</b>	<b>Q-SV</b>	<b>z-Score</b>
21	[APS] Studying more than four years at a university	27	-2	-0.95
24	[IRH] Improving research skills	28	-2	-0.96
35	[APS] Having incremental graduation requirements	29	-2	-0.96
11	[PAD] Studying at a university with little bureaucracy	30	-2	-0.97
4	[PAD] Studying a program that has minimal legal regulations	31	-3	-1.19
2	[APS] Studying a demanding graduate program*	32	-3	-1.21
23	[PAD] Getting a degree without government intervention	33	-3	-1.22
18	[IRH] Conducting research in class**	34	-3	-1.44
26	[ELF] Improving my English proficiency	35	-4	-1.67
16	[FSP] Conducting multidisciplinary work**	36	-4	-1.69
Asteriks indicate distinguishing statements for this view; (*) significance at $P < .05$ ; (**) $P < .01$ Both the Factor Q-Sort Value (Q-SV) and the z-Score (z) are shown				

advance degree certification and differentiation of degrees. “Use of English as lingua franca” (ELF) was highly valued by these sorters, which coincides with the condition of native speakers of the language of those sharing this view. Flexibility of curriculum and growing stratification of programs (FSP) was valued particularly with regard to program

flexibility, distance learning, and prestige based on ranking. “Promotion of autonomy and decentralization of higher education” (PAD) was poorly valued with only some positive value assigned to easing the completion of administrative processes. The least valued element was “Integration of research into higher education” (IRH), which received mostly negative values.

The highest score values were given to “Studying to succeed economically” (statements 33) and “Obtaining a university degree to get a better job” (statement 13). In contrast “Conducting multidisciplinary work” (statement 16) and “Improving my English proficiency” (statement 26) were assigned the lowest array positions. This combination quickly evidenced the primary monetary orientation of those sharing this view. High scores of 3 were also given to “Having a graduate degree” (statement 9), “Acquiring knowledge that makes me more competitive” (statement 1), “Getting university instruction exclusively in English” (statement 34), and “Getting preparation to be a professional leader” (statement 25). On the other side, high low values of -3 were given to “Conducting research in class” (statement 18), “Getting a degree without government intervention” (statement 23), “Studying a demanding graduate program” (statement 2), and “Studying a program that has minimal legal regulations” (statement 4). All of the above further suggest that money driven students view graduate education primarily as a means for economic advancement. Illustrative comments of participants supporting this view included the following:

- I would think that the number one reason international students to come here is to get the American degree (laughs) (IF-1, February 15, 2015, personal communication).

- ...some of the themes which resonated with me and resonated with why I came to... to the States to study, hum, be able to get a job here and that... that definitely, hum, connected (IF-1, February 15, 2015, personal communication).
- American students are more concerned, as I told you, about sports and getting out fast from the university more than getting knowledge itself, so, you know, they are kind of... trying to just pick up as much as they can but not very conscientiously, hum, they are trying just to... getting classes and get out with the degree under their... their arms. So, that called my attention, that is a different mission that I have, hum, for me, coming here was a learning process... more than just getting a degree. (IM-2, March 7, 2015, personal communication).
- I've seen that most of the Americans get the degree actually, hum, just for the economical point of view, while some students... international students some... they just want to get probably the degree to develop knowledge or do some research, yeah (IM-4, March 9, 2015, personal communication).
- For some reason my impression about Americans it is more into, hum, the benefits that having a degree, in terms of economic, hum, independency, or... or being able to go to a university that is ranked highly because it is important for them, so it is not education because they want to be educated, I see it as more education for getting better economic status (IF-5, March 10, 2015, personal communication).
- A lot of the things I knew do matter for American students, kind of doesn't (sic) matter for us (IM-9, April 11, 2015, personal communication).

- Yeah. Studying exclusively in English, that's one I remember, I mean we don't care but I'm sure many... many Americans... think it's...important (IM-9, April 11, 2015, personal communication).
- And when we come to the United States it is expected that we know English so I thought that... yeah, that would be the main difference in my sorting that they will only do things in English (IM-17, April 5, 2015, personal communication).
- I thought the difference in my priorities as an international student and their priorities as, hum, American students, hum, for example, ranking, I thought, ranking something is definitely... probably American students would think about (IF-11, April 6, 2015, personal communication).

**Narrative of view based on data.**

The following themes emerged during the analysis of this view:

*Competition pushes me to be here.* Those in this view seem to value highly the empowerment that graduate education conveys. The high value of 4 and 3 assigned to “Studying to succeed economically,” “Acquiring knowledge that makes me more competitive,” and “Getting preparation to be a professional leader” show that they are in graduate education because they perceive that it will help them succeed in the ever competitive job market. Nevertheless, that contrasts with their low willingness to conduct academic work. For example, “Studying a demanding graduate program,” “Conducting multidisciplinary work,” “Improving my English proficiency,” and all statements related to research were assigned negative values.

*It is all about getting the “paper.”* Those in this view seem to be in graduate education merely for the certification that it provides. “Having a graduate degree” had a

value of 3 and ranked number three in the array of this view. “Following the bachelor-master-doctorate sequence” had a positive value of 1. Both suggest that getting an advanced degree is another primary value for those in this view. However, this contrasts with the high low value assigned to “Studying more than four years at a university,” “Having incremental graduation requirements” (statement 35), and “Taking graduate courses (statement 27). Those on this view focus primarily on obtaining a degree per se.

*Where the “paper” comes from matters.* Money driven students place a high value on the prestige of the institutions granting their degrees. “Choosing a program based on university rankings” (statement 36) and “Studying in English speaking countries” (statement 8) received both a value of 2. On the contrary, they assigned a value of -3 to “Studying a program that has minimal legal regulations” (statement 4) and “Getting a degree without government intervention” (statement 23), which suggests that they do care about the legal and governmental endorsement of their institutions and degrees. Nevertheless, this contrasts again with the low value assigned at “Studying a demanding graduate program” and at “Studying a program that emphasizes research over teaching,” which are usually the norms at prestigious Anglo Saxon higher education institutions. Money driven students want the prestige but not the academic investment.

*They want to win the lottery without buying a ticket.* Money driven students seem to want it all but with the minimum effort. Extreme negative values were assigned to even basic skills such as “Improving my English proficiency” and “Conducting multidisciplinary work.” “Conducting research in class” (statement 18) was also placed in the least valuable extreme of the view array. “Developing independent learning” received a value of -1. They placed a value of 1 at “Completing administrative processes easily”

(statement 32) but did not seem to value any other type of institutional or individual autonomy. “Getting preparation to be autonomous” received a neutral value of 0. The low value of -2 assigned to “Studying at a university with little bureaucracy” suggests that they do not seem to care about institutional matters either. In short, the easiest that they can navigate their program the better that it is.

*Research is just not for us.* Money driven students do not want to conduct research in the classroom and, thus, “Studying a program that emphasizes research over teaching” (statement 5) and “Improving research skills” (statement) received a value of -1 and -2 respectively, indicating that research skills are not a priority either. These students, however, assigned values of -1 at “Taking classes that integrate theory, research and practice” (statement 30) and “Writing a thesis or dissertation,” around the middle of the view array, suggesting that they are knowledgeable that these may not be avoided. As a key element, the integration of research into higher education is of no value for money driven students.

*Publication? Hum...* Both of the statements related to publication were located in the middle of the view array. “Publishing research studies” (statement 12) and “Publishing in English” (statement 6) were assigned a score value of 0 which is in the context of the view that money driven students are either indifferent or careless about the publication or scholarly work even in their native language.

*I am here, speak English.* In the context of the minimum effort that money driven students are willing to do in graduate education, the high value that sorters assigned to the use of English as lingua franca and their willingness to mobilize to English speaking countries, if required, may be understood. “Getting university instruction exclusively in



English,” “Not using materials in languages other than English” (statement 19), and “Reading academic materials in English” received array positions of 3, 2, and 1 respectively. “Being able to transfer from one institution to another” had an array position of 0. That is why “Studying in English speaking countries,” although receiving a positive value of 2, may be understood as a possibility if required.

Money driven students see graduate education as a means for economic advancement. It is an investment that they make for future returns. They openly show their intentions to navigate the higher education system smoothly and as soon as possible. Knowledge is a key element for them in the context of empowerment and competitiveness. Although this view was defined by sorts for others, it was the second strongest factor which indicates that it is a strong view and provided insight on the value of the key elements of the model of the research university. Moreover, half of the sorters that defined this view were American students themselves, and the other half were international students studying in the United States, which provides an additional significance to their insights.

### **Factor 3: Scholarly Driven**

Only one group sort had a significant loading on this view at a 0.45 threshold. This sort was the Mexican students’ strongest view for other Mexican students and, surprisingly, it had a very strong negative loading of -0.742. At first glance, eleven (18.3%) Mexican (8 females, 3 males) sorters out of the total 60 sorters defined this view that accounted for 19% of the explanatory variance among the group views. However, a deeper analysis revealed that the only two confounded group factors, out of the total nine, loaded highly on this factor and were in fact the ones that primarily defined the view.

These were International students' second strong view for self (that was the exemplar sort) and the Mexican students' second strong view for self, with loadings of 0.698 and 0.628 respectively. Therefore, in reality, a total of 19 sorters (13 Mexican, 6 international students) and 20 defining sorts (one international student had two defining sorts) with completely opposing values were involved in the definition of this factor. Four defining sorts from international students were views for self and two were views for other American students. Only 2 (15.4%) out of the 13 Mexican (one male, one female) students' sorts significantly defining this view were sorts for self with high positive loading values. The rest were views for others, which, due to their strong negative loading, expressed their point of view about how other Mexican students do not value what this view of graduate education entails. This means that, in reality, 8 (13.3%) sorters (2 Mexican, one male, one female; 6 international, all males) were the ones who significantly contributed to the definition of this view. This also means that there were some contradicting views among Mexican students but that the majority perceived that other Mexican students hold an anti-scholarly view. The surprising combinations of this factor indicated that the exemplar scholarly driven student is primarily a male international student studying in the U.S.

*I am in graduate school because I like scholarly work and I know English is a powerful tool for it* best describes what distinguishes this view in comparison to the other two (Table 4.7). This view emphasized the importance of publication of research and mastering the English language. All six statements for the "Use of English as lingua franca" (ELF) were placed on the most valuable extreme of the view array. "Integration of research into higher education" (IRH) was highly valued, particularly with regard to

Table 4.7

*High positive and negative statements for scholarly driven orientation*

Scholarly Driven				
S#	Most Like Statements	Rank	Q-SV	z-Score
6	[ELF] Publishing in English**	1	4	1.77
12	[IRH] Publishing research studies	2	4	1.77
8	[ELF] Studying in English speaking countries**	3	3	1.33
14	[ELF] Reading academic materials in English	4	3	1.33
31	[IRH] Writing a thesis or dissertation*	5	3	1.33
34	[ELF] Getting university instruction exclusively in English	6	3	1.33
19	[ELF] Not using materials in languages other than English	7	2	0.89
21	[APS] Studying more than four years at a university	8	2	0.89
26	[ELF] Improving my English proficiency**	9	2	0.89
5	[IRH] Studying a program that emphasizes research over teaching	10	2	0.89
S#	Most Unlike Statements	Rank	Q-SV	z-Score
27	[APS] Taking graduate courses	27	-2	-0.89
28	[FSP] Studying a flexible graduate program*	28	-2	-0.89
25	[KNC] Getting preparation to be a professional leader**	29	-2	-0.89
35	[APS] Having incremental graduation requirements	30	-2	-0.89
11	[PAD] Studying at a university with little bureaucracy	31	-3	-1.33
32	[PAD] Completing administrative processes easily	32	-3	-1.33
4	[PAD] Studying a program that has minimal legal regulations	33	-3	-1.33
9	[APS] Having a graduate degree**	34	-3	-1.33
13	[KNC] Obtaining a university degree to get a better job**	35	-4	-1.77
33	[KNC] Studying to succeed economically**	36	-4	-1.77
Asteriks indicate distinguishing statements for this view; (*) significance at P < .05; (**) P < .01 Both the Factor Q-Sort Value (Q-SV) and the z-Score (z) are shown				

publication, writing a thesis or dissertation, and studying programs that emphasize research over teaching. The “Promotion of autonomy and decentralization of higher education” (PAD) was positively valued only concerning independent learning and individual autonomy.

Similarly, some positive value was assigned to the “Flexibility of curriculum and growing stratification of programs” only when referring to multidisciplinary work and inter-institution transferability. “Structuring of academic programs in three tiers” (SAP) received mostly negative values except for the length of academic programs that they seem to highly value. Surprisingly, the “Understanding as national capital was negatively valued for those in this view. Four of the statements of this element were given negative values, and two that referred to the creation and acquisition of knowledge received a value of 0.

The highest score values were assigned to “Publishing in English” (statement 6) and “Publishing research studies” (statement 12). In contrast, “Obtaining a university degree to get a better job” (statement 9) and “Studying a program that has minimal legal regulations” receive the lowest scores. This relationship showed upfront that those in this view are primarily scholarly oriented. High values of 3 were given to “Studying in English speaking countries” (statement 12), “Reading academic materials in English” (statement 14), “Writing a thesis or dissertation,” and “Getting university instruction in English” (statement 34). Contrarily and surprisingly, equal negative values of -3 and z-scores of -1.330, were given to “Having a graduate degree” (statement 9), “Studying a program that has minimal legal regulations” (statement 4), “Completing administrative processes easily” (statement 32), and “Studying at a university with little bureaucracy” (statement 11). Illustrative comments of participants supporting this view included the following:

- Yeah, I was... in my perception, I was more, hum, leaning towards getting the research part because I'm into research, just being able to do research, just being

able to publish, just being able to get theory and all that is important to me ... Hum... and the bureaucracy. I don't think there's a university that has not a bureaucracy but that's... that's fine... that's the one that caught my attention. (IF-5, March 10, 2015, personal communication).

- English is easy for [Americans] to speak but for other students like, it is difficult for us and you get used to it, so the international students from ... they become fluent in English after they come here and even they do get a lot of experience (IF-11, April 5, 2015, personal communication).
- International students will need to improve more their English while the American they don't need to really improve that much because that is their native language (IF-16, April 8, 2015, personal communication).
- I value research higher over economics, right? I mean like succeeding economically, but that might... that is not true for many of the American students I saw they want to take a graduate study just to succeed economically (IM-20, April 12, 2015, personal communication)
- [After completing the second sort] I even no longer felt Mexican, I am ashamed (laughs) (MF-9, March 22, 2015, personal communication).

#### **Narrative of view based on data.**

The following themes emerged during the analysis of this view:

*It's about production of knowledge, not about consumption.* All three elements regarding scholarly writing included in the Q set were assigned the top high values by those in this view. "Publishing research studies" and "Publishing in English" received high values of 4, "Writing a thesis or dissertation" a value of 3, and "Conducting research

in class” (statements 18) a value of 1. Those in this view are willing to produce research rather than just consume it. “Taking classes that integrate theory, research, and practice” (statement 30) was assigned a value of 0. They see some positive value in “Conducting multidisciplinary work” (statement 16) and “Being able to transfer from one institution to another” (statement 10) aimed at increasing their productivity. They perceive themselves as having the necessary research skills, that is why they were indifferent with regard to “Improving my research skills” (statement 24) and assigned it a value of 0.

*English is THE lingua franca.* All of the statements regarding the “Use of English as lingua franca” were assigned the highest positive array positions ranging from 2 to 4. Those in this view want to “Publish in English” (value of 4) and in order to do that “Getting instruction exclusively in English,” “Improving my English proficiency” (statement 26), and “Reading academic materials in English” (statement 14) are perceived of high value. They do not really value the integration of other languages in graduate education. “Not using materials in languages other than English” was given a value of 2. They perceive a value added in studying in English speaking countries, where the rule normally is English only.

*Traditional instruction preferred.* Those in this view favor traditional instruction and rigid, structured programs. Although they assign some positive value to “Developing independent learning” (statement 17) and “Getting preparation to be autonomous,” they rather prefer a structured program and traditional academic work. A value of -2 was assigned to “Studying a flexible graduate program” (statement 28), and a negative value of -1 was assigned in this view to “Taking distance learning classes” (statement 22) and “Taking courses without prerequisites” (statement 3).

*No distractors please.* Their focus on research and knowledge production seems to influence their perception of institutional and administrative matters. They assigned negative values to all institutional related statements. Even “Choosing a program based on university rankings” (statement 36) received a negative value of -1. “Studying at a university with little bureaucracy,” “Completing administrative processes easily,” and “Studying a program that has minimal legal regulations” received a negative value of -3. However, in the context of their primary interests, these negative values (rather than meaning that those in this view value the opposite), seem to indicate that they are perceived as distractors not deserving attention.

*It is not the degree that I seek.* “Studying more than four years at a university” was assigned a positive value of 2 in this view but, contrastingly, defining sorters perceived “Studying a demanding graduate program” (statement 2) as having a neutral value (0). Even more surprisingly, those sharing this view negatively perceived “Following the bachelor-master-doctorate sequence” (statement 15), “Taking graduate courses” (statement 27), and “Having incremental graduation requirements,” (statement 35) indicating that the stratification of the degrees is not valuable to them. Furthermore, “Having a graduate degree” had a negative value of -3 in this view, which suggests that their focus on scholarly work overweighs the value of certification.

*Money does not equate success.* Surprisingly as well, those in this view negatively perceived the “Understanding of knowledge as national capital.” Even “Creating new knowledge” and “Acquiring new knowledge that makes me more competitive” were assigned values of 0, which suggests that they perceived these dimensions as being part

of the marketization of graduate education and therefore assigned an indifferent value to knowledge.

Scholarly driven was primarily an ideal view of graduate education shared only by a few participants (7 out of 60). This view reflects the key role of the “Integration of research into higher education” and the “Use of English as lingua franca.” The majority of Mexican sorters defining this view perceived that other Mexican students just value the opposite to this view. In reality, and after analyzing their group view, their high negative loading on this view indicates that they highly perceived other Mexicans as money driven. The array position of their group view is almost an inverted array of the model sort for scholarly driven that resembles the model sort of money driven but with a much more cynical view of graduate education. Those in the inverted view of scholarly driven not only value graduate education in terms of economic advancement, but also negatively value all statements related to knowledge, research, and the English language. The findings suggest that they highly value the stratification of higher education in the context of economic stratification. They highly value the flexibility of programs and the institutional flexibility to obtain a degree. Their primary focus is getting a graduate degree to make more money, disregarding the quality of the program and the prestige of the granting institution.

All three views among groups unveiled surprising relationships of the key elements of the Anglo Saxon model of the research university. They depict three distinct points of view among the three groups at the time the studies were conducted. Findings indicate that “Understanding of knowledge as national capital,” the “Use of English as lingua franca,” and the “Integration of research into higher education” were the elements



with the highest perceived value. Consensus among groups suggests that the “Promotion of autonomy and decentralization of higher education,” the “Flexibility of curriculum and growing stratification of programs/institutions,” and the “Structuring of academic programs,” are not as valuable. However, group views and individual sorts showed that some dimensions of these three elements are highly valued.

### **Consensus Values of Graduate Education**

Some common values of graduate education dimensions were evident in statement rankings and array positions of the three value orientations (Table 4.8). For example, all indicated a neutral value of flexibility of curriculum, structuring of programs, and overemphasis on research. Similarly, each value orientation exhibited a negative value of autonomy. These dimensions were not valued identically among the three value orientations but some themes were clear across them.

The consensus statements among factors are included in Table 4.8. Consensus statements were those that did not statistically distinguish between factors. The consensus is evident in the neutral position of the statements in the arrays, with values ranging from -1 to +1. “Being able to transfer from one institution to another” (statement 10) exemplifies consensus. Some statements in the table, like “Studying a program that has minimal legal regulations” (statement 4), show that some statements rather had identical negative values. The commonality of these themes, however, did not significantly impact the correlation among the three value orientations. The individual analysis of the factors showed that some subtle distinctions existed regarding some dimensions of the elements.

*Decentralization.* About half of the consensus statements were neutrally arrayed. However, almost half were strongly rejected by the sorters in the three value orientations.

Table 4.8

*Consensus statements*

No.	Statement	Knowledge driven		Money driven		Scholarly driven	
		Q-SV	z	Q-SV	z	Q-SV	z
4*	[PAD] Studying a program that has minimal legal regulations	-3	-1.33	-3	-1.19	-3	-1.33
5	[IRH] Studying a program that emphasizes research over teaching	0	0.20	-1	-0.48	2	0.89
10	[FSP] Being able to transfer from one institution to another	-1	0.60	0	-0.00	1	0.44
11*	[PAD] Studying at a university with little bureaucracy	-2	-0.94	-2	-0.97	-3	-1.33
15	[SAP] Following the bachelor-master-doctorate sequence	-1	-0.49	1	0.49	-1	-0.44
22*	[FSP] Taking distance learning classes	0	-0.19	1	0.47	-1	-0.44
23	[PAD] Getting a degree without government intervention	-2	-0.72	-3	-1.22	0	-0.00
27*	[SAP] Taking graduate courses	0	-0.15	-1	-0.47	-2	-0.89
28	[FSP] Studying a flexible graduate program	1	0.33	0	0.23	1	0.44
29*	[PAD] Getting preparation to be autonomous	1	0.48	0	-0.23	1	0.44
35*	[SAP] having incremental graduation requirements	-1	-0.52	-2	-0.96	-2	-0.89
36	[FSP] Choosing a program based on university rankings	0	-0.25	2	0.74	-1	-0.44

(All statements are Non-significant at  $P < .01$ ; Asterisk (\*) Indicates Non-significance at  $P < .05$  either)  
Both the Factor Q-Sort Value (Q-SV) and the z -Score (z) are shown

Remarkably, the highest negative values were given to statements 4, 11 and 23. Those statements were included in the Q set for “Promotion of autonomy and decentralization of higher education.” Statement 4 had a negative array position of -3, the second strongest negative position on all three value orientations. Statement 11 had an array position of -2 on the first and second value orientations and -3 on the third. Statement 23 received a position of -2 on the first and second value orientations and neutral value of 0 on the third. The results suggest that decentralization as a dimension of this element was

negatively valued. For example, statement 4 that expressed minimal governmental intervention on academic programs was strongly rejected. Statement 11 was expressed in terms of a low level of institutional bureaucracy and was also rejected by the three value orientations. It seems that sorters indeed prefer some governmental control of higher education with regard to degree granting and program legal requirements.

*Autonomy preparation.* This statement was surprisingly a consensus statement with a rather neutral value. It received values of 1 in knowledge driven, 0 in money driven, and 1 in scholarly driven. The low positive value assigned in knowledge driven and scholarly driven coincides with the positive value that “Developing independent learning” received in both views. This suggests that students in these two views perceived some but not high value in individual autonomy.

*Structuring of Degrees.* Another element that was perceived negatively was “Structuring of academic programs in three tiers” (SAP). Three out of the six statements included in the Q set for this factor received mostly negative values. Statements 15 and 27 received similar neutral values suggesting that the structuring of degrees, and therefore, the categorization of courses like undergraduate-graduate, was of indifferent value. Statement 35, however, received values of -1 and -2 indicating that there was a negative agreement in all three views with regard to having incremental graduation requirements.

*Flexibility.* Flexibility of curriculum and growing stratification of programs (FSP), as an element, was perceived indifferently. Four of the six statement included in the Q set for this factor received central array positions and z scores ranging from -0.44 to 0.74. However, subtle differences existed. Statement 10 received values of -1 in

knowledge driven, 0 in money driven, and 1 in scholarly driven. This suggests that some neutral agreement existed with regard to institutional flexibility allowing student mobility; but is important to note that the only positive value was in scholarly driven. Similarly, statement 22 received values of 0, 1, and -1 respectively. Although neutral agreement existed among the three views with regard to taking distance learning classes, scholarly driven students seem to rather negatively value distance learning. Regarding flexibility of graduate programs, there was more of a low positive agreement among the three views. In general, participants perceived flexibility of rather neutral value in graduate education.

*University rankings.* Statement 36 was a surprising consensus statement. The values of 0 in knowledge driven, of 2 in money driven, and -1 suggest that there are some differences after all in the perception of the value of use of university rankings for the selection of a graduate program. Knowledge driven students had a neutral stand, whereas money driven say yes, and scholarly driven said no.

*Overemphasis of research over teaching.* One out of six of the statements included for “Integrating research into higher education” (IRH) was a consensus statement. It is interesting to note that although “Studying a program that emphasizes research over teaching” (statement 5) was a consensus statement, it had an indifferent value of 0 in factor one, it received a fairly negative value of -1 in factor two, and it received a fairly positive value of 2 in factor three. This indicates that there are some subtle differences in the perceptions of this statement within the factors after all and it also illustrates the perceive value of “Integration of research into higher education” in the three views as discussed earlier in this chapter.

Consensus statements suggested that participants who defined these three views did not perceive PAD, SAP and FSP to be elements of much value of the theoretical Anglo Saxon model explored in this study. The value of all elements was interpreted according to the distribution and in three value orientation arrays of the six statements included for each key element. The following sections include an interpretation for each view.

### **Research Question 3**

The third research question of this study was: In what ways do the Anglo Saxon model and its elements explain the values of American, international, and Mexican graduate students? The analysis of the data revealed that the three views among the groups represented distinct distributions of the theoretical key elements of the Anglo Saxon model of the research university.

*Knowledge driven* had an explanatory variance of 36% and associated the values for self of American and Mexican graduate students, the mixed view of international students for self and other American students, and one of the two extant views for other American students by American participants (View 3). As described earlier in this chapter, knowledge driven clearly was the dominant view among the three groups. Figure 4.1 illustrates the distribution of the elements in this value orientation.

The ranking of the elements in this view, according to their average Q sort value, was:

- 1) Knowledge as national capital (3)
- 2) Integration of research into higher education (1.5)

- 3) Flexibility of curriculum and growing stratification of programs/institutions (-0.3)
- 4) Structuring of academic programs in three tiers (-0.8)
- 5) Promotion of autonomy and decentralization of higher education (-1.2)
- 6) Use of English as lingua franca (-2.2)

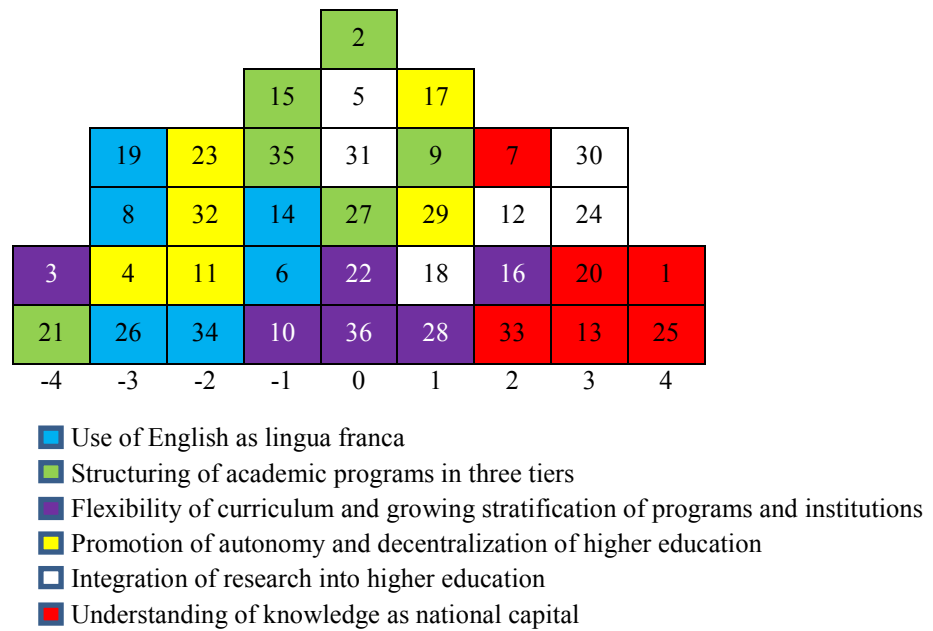


Figure 4.1 Distribution of the six key elements for knowledge driven orientation

Based on this ranking, only “Knowledge as national capital” and “Integration of research into higher education” were perceived as valuable in this view. However, except for the “Use of English as lingua franca,” the other five elements had at least one statement with a positive value, which suggests that five elements are of some value for knowledge driven students.

*Money driven* was the second strongest view among the three groups and accounted for a shared explanatory variance of 23%. It associated the views of American

(View 2) and International participants for other American graduate students. A confounded view of Mexican participants for other Mexican graduate students loaded highly in money driven showing that it was also strongly associated. Figure 4.2 illustrates the distribution of the elements in this value orientation.

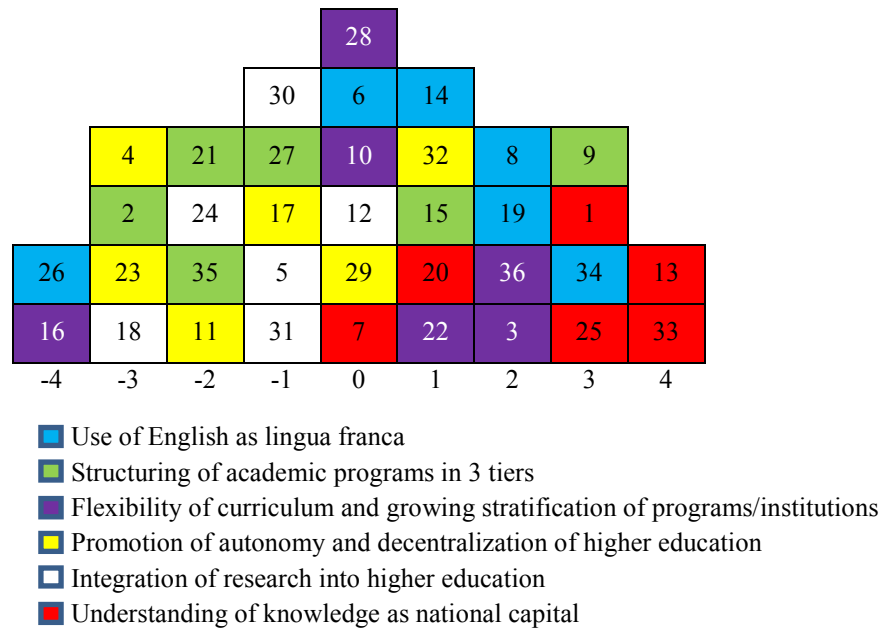


Figure 4.2. Distribution of the six key elements for money driven orientation

The ranking of the elements in this view according to their average Q sort value was:

- 1) Knowledge as national capital (2.5)
- 2) Use of English as lingua franca (0.7)
- 3) Flexibility of curriculum and growing stratification of programs/institutions (0.2)
- 4) Structuring of academic programs in three tiers (-0.7)
- 5) Promotion of autonomy and decentralization of higher education (-1.3)
- 6) Integration of research into higher education (-1.3)

“Promotion of autonomy and decentralization of higher education” and “Integration of research into higher education” had the same exact negative value but the former had one statement with a positive value whereas all of the statements of the latter were assigned neutral and negative values. According to the ranking in this view, the first three elements were valuable, as a whole, for the associated views. Nevertheless, except for “Integration of research into higher education,” the other five elements had at least one statement with a positive value, which indicates that five elements are of some value for money driven students.

*Scholarly driven* was the third strongest value orientation and accounted for 19% of the explanatory variance. This was the most surprising association. It associated the confounded view of International participants for Self, one confounded of Mexican participants for other Mexican students (View 3), and one view of Mexican participants for other Mexican students (View 2). However, this last view was the only defining sort and had a very high negative loading. As described earlier in this chapter, the defining view was, indeed, an inverted view of the model sort for scholarly driven. Figure 4.2 illustrates the model sort and the distribution of the elements in this value orientation.

The ranking of the elements in this view, according to their average Q sort value, was:

- 1) Use of English as lingua franca (2.8)
- 2) Integration of research into higher education (1.7)
- 3) Flexibility of curriculum and growing stratification of programs/institutions (-0.5)
- 4) Structuring of academic programs in three tiers (-1.0)



- 5) Promotion of autonomy and decentralization of higher education (-1.2)
- 6) Knowledge as national capital (-1.8)

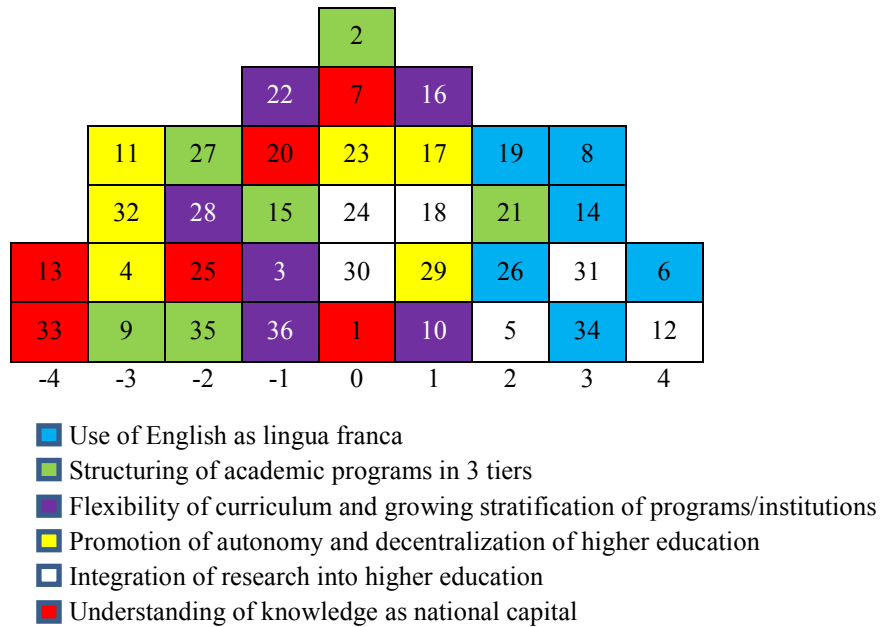


Figure 4.3. Distribution of the six key elements for scholarly driven orientation

This ranking suggests that only “Use of English as lingua franca” and “Integration of research into higher education” were valuable for those in this view. Notwithstanding, except for the “Understanding of knowledge as national capital,” the other five elements had at least one statement with a positive value. This indicates that, as in the case of the other two views among the groups, scholarly driven students value five elements of the model to some extent.

The distribution of the elements in the three groups evidences the high value that all participants assigned primarily to three elements, “Understanding of knowledge as national capital,” “Integration of research into higher education,” and “Use of English as lingua franca.” Surprisingly, the “Understanding of knowledge as national capital,”

which was the element added for exploration to the theoretical model proposed by Wanger, Azizova and Wang (2009) and Wang and Wanger (2011), was the most valuable element for those defining knowledge driven and money driven, the two strongest value orientations. Equally surprising was that this same element was the least valued for scholarly driven.

“Integration of research into higher education” was the second most valuable for knowledge driven and scholarly driven. This same element was the least valuable for money driven. One more distribution that is surprising was that of “Use of English as lingua franca,” which was the most valuable element for scholarly driven, the second most valuable for money driven, and the least valuable for knowledge driven.

“Flexibility of curriculums and growing stratification of programs/institutions” seemed to be of low positive only for money driven. “Promotion of autonomy and decentralization” and “Structuring of academic programs in three tiers” had negative average scores in all three views. However, as previously discussed, and as illustrated in the distribution figures, some dimensions of all six elements received some positive value in all three views as well.

The findings support the preeminence of the key elements proposed by Wanger, Azizova and Wang (2009) and Wang and Wanger (2011) and the preeminence of “Understanding of knowledge as national capital” as key and of primary value. Conversely, the focus of the theoretical and online discourses seems to coincide with the prioritizing of the elements in participants’ views. All three elements regarding knowledge consumption and production were highly valued, which coincided with the abundant theoretical discourse on the global focus of higher education as discussed in the

literature review. Consensus on the negative or neutral perception of some themes and elements among participants also coincide with the lesser theoretical conversation on those themes and elements. Chapter V presents a further discussion of the link of the findings with theory and other considerations.

### **Key Elements to Consider**

During the post-sort interviews, the researcher asked participants to elaborate on their sorts. Some participants expressed that they observed that, from their perspective, some key elements were missing in the Q set and provided illustrative comments. The elements mentioned were:

- The promotion of athletics as institutional identity
- The human aspect of higher education
- The mentorship/advising system
- The cost of higher education
- The financial aid/assistantship system, and
- The integration of extra-curricular activities.

With regard to the promotion of athletics as institutional identity, one international participant said:

One important aspect for Americans is how well the university is in the football ranking (laughs) in the national football ranking more than, hum, just one... as an example when APU won the bowl or something like that we had an increase in the number of students coming here thinking that, you know, if you're good in sports you're a good university but that's not the reality. Hum, so that's one aspect that is missing here, how Americans see sports and relate that to the

academic, hum, you know, performance (IM-2, March 7, 2015, personal communication).

Regarding the human aspect of higher education, one Mexican participant expressed that what she perceived was missing was:

More about your self-esteem, I don't know, a little more the human dimension of self-learning, maybe that is what I would add, any phrase that talks about having more knowledge about oneself, hum, I would say, to become more mature or well defined, so that that can help integrate multiple disciplines (MF-9, March 22, 2015, personal communication).

Concerning the mentorship/advising system, one international participant commented:

Yes, hum, some elements related to the advisers, the professors that supervise graduate students it is necessary to make it a complete survey, yeah.

In relation to the cost of higher education, an international participant stated:

Hum, the cost to me as a student, probably. Probably that's the question. I don't know if you addressed it in an indirect way but I know you ask questions about getting a degree so that you are more competitive to have a better job, to be successful economically but how about the question that, hum, choosing a degree or an institution based on my budget and how expensive that will be for me (IF-11, April 6, 2015, personal communication).

With regard to financial aid system, one international student commented:

The financial situation should be considered as well because, and scholarships also, because that is like... these are two factors which affect the students either

American or international students to choose which universities they want to attend (IF-16, April 8, 2015, personal communication).

Pertaining to the integration of extra-curricular activities, one international participant elaborated:

Something that I have seen here that they are improving is wellness and all the strategies they are doing and how important it becomes, sports, hum, yea, I think, one would be that, all the extra [curricular] activities that you can do in a university like this, all the extra workshops (IF-18, April 5, 2015, personal communication).

Participants' insights on their perceived value of these additional elements of graduate education, and higher education in general, call for consideration, particularly when addressing the emulation of the Anglo Saxon model of the research university and the declining matriculation trend of international students in the United States. These suggested elements provide direction for future theoretical and empirical exploration.

### **Summary of Results**

The results of first-order and second-order factor analyses, demographic information provided by participants, and data obtained from post-sort interviews with volunteers were instrumental for responding to all three questions. The number of participants and their purposeful selection limited the conclusions to those who participated in this study. Nevertheless, the findings provided valuable insights on the perceived value of graduate education and the key elements of the Anglo Saxon model of the research university held within and among the three groups of participants.

The results of the first-order factor analysis indicated that each group of participants held different values of graduate education for self and for others. There was one strong factor for self in each group. There was also one strong factor for others in each group. American participants had one factor for self and two factors for other American students. International participants had a mixed factor for self and for other American students, one factor for other American students, and one factor for self. Mexican participants had two factors for self and one factor for others. The results within each group indicated that participants' values of higher education, concerning the key elements of the Anglo Saxon model of the research university, differed from what they perceived other graduate students value.

American students' factor loadings for self and their factors for other American students indicated a clear dichotomy of values. Mexican students' factor loadings equally exposed a dichotomy of values for self and their perceived values for other Mexican students. In the case of international students, they perceived that they shared common values with American students. The strongest factor in their group was almost equally loaded with sorts for self and sorts for other American students. However, some international students also perceived differing values and defined one factor for self and one factor for others. Although to a varying degree, the dichotomy of values was present in all groups.

The result of second-order factor analysis indicated that three views of the value of the key elements of the Anglo Saxon model of the research university were common among all 60 participants. All three views exposed distinct value orientation and were named accordingly. The first view prioritized the knowledge dimension of

“Understanding knowledge as national capital” and was named *knowledge driven*. The second view prioritized the economic dimension of “Understanding knowledge as national capital” and was named *money driven*. The third view emphasized the production dimension of “Use of English as lingua franca” and “Integration of research into higher education” and was named *scholarly driven*.

*Knowledge driven* students value graduate education primarily because of the knowledge they can acquire and produce and the professional preparation they can obtain. To a lesser extent, they value multidisciplinary work and the preparation to be autonomous. They do not much value the stratification of degrees and the flexibility of curriculum programs. They seem not to pay much attention to institutional autonomy and bureaucracy, administrative processes, decentralization and the exclusive use of English for knowledge delivery and acquisition. They definitely do not value unstructured or long programs. They value the quality of graduate education over the length of academic programs.

*Money driven* students value graduate education almost exclusively for the economic advancement that it provides. They highly value the preparation to become a professional leader, to secure better employment, and to succeed economically. Scholar related work is not of value to them. Legal requirements and bureaucracy are highly valued. Expedited administrative processes are also highly valued, as is selecting a program based on university rankings to further secure better employment or position. They highly value flexibility of curriculum and instruction in English and consumption of knowledge in English that facilitates obtaining a graduate degree.

*Scholarly driven* students value graduate education because it allows the creation and publication of knowledge. They highly value the English language because they know that it is the primary language of publication. They do not place much value on institutional administration and governmental regulations involved in graduate education. They do not value much the flexibility of curriculum, programs, or institutions. They negatively value the marketization of knowledge and reject the value of graduate education as a means for economic advancement. They value the length of academic programs because they can conduct more work that is scholarly.

The three value orientations supported the preeminence of the conceptual key elements of the model proposed by Wanger, Azizova and Wang (2009) and Wang and Wanger (2011) and, conversely, the key elements served to explain the value orientations of participants. Literature related to the knowledge economy and neoliberal practices in higher education (Acosta-Silva, 2002; Cucchiara, Gold & Simon, 2011; Hershock, 2010; Hutchison, 2011; Judson & Taylor, 2014; Taylor & Judson, 2011; Lynch, 2006; Kleypas & McDougal) also helped explain the high value among all participants of the “Understanding of knowledge as national capital” (ranked 1), the “Integration of research into higher education” (ranked 2), and the “Use of English as lingua franca” (ranked 3) for a large percentage of participants. However, it was surprising that, in general, most participants negatively viewed the “Flexibility of curriculum and growing stratification of programs/institutions” (ranked 4), the “Structuring of academic degrees in three tiers” (ranked 5), and the “Promotion of autonomy and decentralization of higher education” (ranked 6). Coincidentally, these three elements, which are also grounded in the knowledge economy and neoliberal practices, are considerably less addressed in the



literature (Acosta-Silva, 2002; Cucchiara, Gold & Simon, 2011; Hershock, 2010; Hutchison, 2011; Judson & Taylor, 2014; Taylor & Judson, 2011; Lynch, 2006; Kleypas & McDougal; Wanger and Azizova, 2009; and Wang and Wanger, 2011).

Participants' insights derived from the post-sort interviews produced other elements of the Anglo Saxon model of the research university that participants perceived as having a high value for some students. The elements cited were the promotion of athletics as institutional identity, the human aspect of higher education, the mentorship/advising system, the cost of higher education, the financial aid/assistantship system, and the integration of extra-curricular activities. All of these elements came from non-U.S. students and set the foundation for further exploration.

As a first exploratory study, the findings were revealing and surprising. The preeminence of all six key elements of the Anglo Saxon model of the research university, although to different extents, was empirically supported. The Q methodological design of this study proved to be effective for the study of the subjectivity of participants. The second-order factor analysis used for comparative analysis among groups was also effective. The statements selected by the researcher as a set of stimuli to capture participants' subjectivity proved to be successful. Subjectivity differed within and among the three groups of participants providing insights on particular relationships of the key elements. These relationships, and the national/international origin of participants, served to characterize distinct views within and among the groups that helped the researcher respond to the three research questions of this study. The findings elucidated surprising associations, value orientations, and provided empirical support for the emerging model of the research university.

## **Chapter Summary**

This chapter presented the responses to the three research questions that guided this study. The results of the first-order and second-order factor analysis of participants' sorts were described. This chapter also described the three resulting views from the second-order factor analysis that represent the views among the groups at the time the study was conducted. The chapter provided an interpretation of all views with the use of participant's demographic information, view arrays, and statement z-scores for the model sorts of the views. Finally, a link of the findings to the theoretical model was included. Chapter V presents a summary of the findings and the responses to the three research questions that guided this study, the implications of this study, and concluding comments.

## CHAPTER V

### CONCLUSIONS

This chapter presents a summary of the findings and their implications for theory, research and practice. The summary is a succinct response to the research questions that guided this research study and a link of the results to the conceptualization of the Anglo Saxon model of the research university. The chapter concludes with recommendations for future research.

#### **Statement of the Problem**

In search of becoming globally competitive, and as a result of internal and external economic pressure (Aboites, 2010; Bernasconi 2008; Kent, 1998, 2002; Mollis, 2007), Mexican higher education institutions are increasingly emulating the Anglo Saxon model of the research university. From a new structuring of academic programs to a greater focus on research, Mexican universities are adopting and adapting the model and increasingly leaving behind the historical model of the Latin American university.

Despite the significant impact of this shift on all higher education dimensions, the perspectives of students—which may raise considerations and may contribute to a more effective and adequate shift—have not been explored to better inform this transition. Accordingly, exploring the values of Mexican students in relation to the Anglo Saxon model is particularly relevant for Mexican higher education institutions that are currently

transitioning to that model, as well as for those considering the shift not only in Mexico but elsewhere.

Recent literature reveals that the number of international students worldwide has grown exponentially in the past two decades (de Witt, H., Ferencz, I., & Rumbley, 2012, Yelland, 2011). In 2102, more than 700,000, or approximately 18% of the total number of international students, chose American universities for undergraduate or graduate education (de Witt, H., Ferencz, I., & Rumbley, 2012). The literature also indicates that some key elements of the U.S. model of the research university are the primary drivers for students to select U.S higher education institutions to conduct their graduate studies (Arthur et al, 2007; Arthur & Little, 2012; Finn, 2007; Gill, 2008; Teichler, 1998; van Santen, 2010; Yao, 2009). However, in the past decade there has been a considerable decline in students' selection of U.S. higher education institutions, as enrollments in higher education institutions in Europe, Australia, Japan, and other non-traditional destinations have grown (de Witt, H., Ferencz, I., & Rumbley, 2012). This negative trend, along with increasing global competition, is expected to continue in the present decade (McCloud, 2004; Yelland, 2011).

Despite the declining trend in matriculation, international students' perspectives on the value of the key elements of the Anglo Saxon model of the research university have not been explored. Literature on the subject is scarce and no empirical study has been conducted. Gaining insight on international students' (who are currently studying at U.S. higher education institutions) perceived value will contribute to an emerging body of literature, prompt further research on this field, inform policy making decisions, and be of help for higher education practitioners to enhance recruitment and retention strategies.

## **Statement of the Purpose**

The purpose of this study was to explore the perceived value of American, international, and Mexican graduate students of key elements of the Anglo Saxon model of the research university through the use of Q methodology. Additionally, the study sought to contrast the structure of the values within and among the three groups of students, with specific attention to values for self in contrast to what others experience, and to contrast the resulting views with the elements of the Anglo-Saxon model.

The research questions that guided this study were:

1. In what ways did values for self associate with values for others in terms of graduate education?
2. What are the values of graduate education for American, international, and Mexican graduate students?
3. In what ways do the Anglo Saxon model and its elements explain the values of American, international, and Mexican graduate students?

## **Review of Methodology**

This study utilized a Q methodology design. The researcher developed an instrument to represent the discourse on the Anglo Saxon model of the research university. The final Q set included 36 statements related to six key elements of the model. Sixty graduate students (20 American and 20 international studying in the U.S., and 20 Mexican studying in Mexico) sorted the Q set twice for a total of 120 sorts. A first-order analysis for the sorts of each group and a second-order analysis of all resulting nine group factors were conducted with the use of PQMethod. The second-order analysis provided a three-factor solution. The factors were named knowledge driven, money

driven, and scholarly driven according to the value orientations they entailed. The factors were then interpreted to determine particular and common themes.

### **Summary of Results**

The initial results of this study indicated that what participants value of the key elements of the Anglo Saxon model of the research university differs from what they perceive others to value. Opposing views were found within each group of participants. Group views were analyzed to determine broader views among the three groups of participants. Three resulting broad value orientations capture the majority of students' views: knowledge driven, money driven, and scholarly driven.

Knowledge driven students are in graduate education primarily for the sake of knowledge but are aware of the economic advantages that graduate education provides.

The themes that defined this value orientation were:

- *Some money does not hurt.* Although the primary focus of these students is knowledge they welcome the economic advantages of graduate education.
- *Research yes, writing not much.* These students are interested in research but not in academic writing and publication.
- *The end is what matters, not the means.* Those in this view prioritize acquisition of knowledge over flexibility of curriculum or programs or the stratification of degrees.
- *No housekeeping, please.* Because students focus on acquisition of knowledge and professional preparation, they do not pay attention to administrative and institutional matters.

- *English is NOT completely lingua franca for us.* Students in this view welcome the inclusion of languages other than English in graduate education.
- *It is not about time; it is about quality.* Those in this view are more concerned about the quality of education they get than about the length of academic programs.

A large number of participants from each group defined this view; thus, the exemplar student in this value orientation was either a male or a female graduate student from the U.S, Mexico, or international student in the U.S. The ranking of the elements in this view was:

- 1) Knowledge as national capital
- 2) Integration of research into higher education
- 3) Flexibility of curriculum and growing stratification of programs/institutions
- 4) Structuring of academic programs in three tiers
- 5) Promotion of autonomy and decentralization of higher education
- 6) Use of English as lingua franca

Money driven students are in graduate education because they see it as an investment to get a better paying job. The themes that defined this value orientation were:

- *Competition pushes me to be here.* Those in this view are in graduate education because they want to be more marketable and professionally competitive.
- *It is all about getting the “paper.”* These students are primarily seeking a degree per se and see graduate education as an investment for economic returns.

- *Where the “paper” comes from matters.* These students pay much attention to university rankings for the selection of the institution that will grant their degrees.
- *They want to win the lottery without buying a ticket.* The goal of these students is to get a degree with minimum academic effort.
- *Research is just not for us / Publication? Hum...* Because academic work is not a priority for these students, research and publication are not of value to them.
- *I am here, speak English.* Those in this view do not welcome instruction and materials in languages other than English.

The exemplar student in this view was either a male or a female American graduate student. The ranking of the elements in this view was:

- 1) Knowledge as national capital
- 2) Use of English as lingua franca
- 3) Flexibility of curriculum and growing stratification of programs/institutions
- 4) Structuring of academic programs in three tiers
- 5) Promotion of autonomy and decentralization of higher education
- 6) Integration of research into higher education

Scholarly driven students are in graduate education because they like scholarly work and they know that English is a powerful tool for it. The themes defining this view were:

- *It’s about production of knowledge, not about consumption.* Those in this view are primarily interested in research production and publication.



- *English is THE lingua franca.* These students welcome English as the primary language in graduate education.
- *Traditional instruction preferred.* Flexibility of curriculum and programs is not favored by those in this view.
- *No distractors please.* Because they focus on research and publication, students in this view do not pay attention to administrative and institutional matters.
- *It is not the degree that I seek.* Those in this view prioritize knowledge production and publication over getting a graduate degree.
- *Money does not equate success.* These students negatively value graduate education as a means for economic advancement.

The exemplar student in this view was a male international student in the U.S. The ranking of the elements in this view was:

- 1) Use of English as lingua franca
- 2) Integration of research into higher education
- 3) Flexibility of curriculum and growing stratification of programs/institutions
- 4) Structuring of academic programs in three tiers
- 5) Promotion of autonomy and decentralization of higher education
- 6) Knowledge as national capital

There were seven consensus themes across all three views:

- Decentralization
- Autonomy preparation
- Structuring of degrees

- Flexibility of curriculum
- University rankings
- Overemphasis of research over teaching

All participants held a neutral value with regard to these consensus themes. Although some level of consensus existed, the low correlation between the three views indicated that they were very distinct points of view of the value of the key elements of the Anglo Saxon model of the research university.

### **Conclusions**

The resulting value orientations revealed the perceived values of participants that may inform both the decision to emulate key elements of the Anglo Saxon model and the strategies to face the declining trend in the matriculation of international students.

Examples are provided in the Recommendations for Practice section. The interpretation of knowledge driven, money driven, and scholarly driven value orientations provide particular themes that warrant further research regarding their inclusion in decision making processes. Each of these considerations suggest that additional research is needed.

The results indicate that Mexican students held at least three views within their group and two of the broad views among the groups. Two of the interpreted broad views are shared by an almost equal percentage of participants. Over half of the defining sorters share a knowledge driven value orientation as defined and characterized in chapter IV, and summarized in this chapter. However, almost half share an anti-scholarly driven value orientation as described in chapter IV. In both views, a clear mark of the knowledge economy and neoliberal practices is evident in students' perceptions of the

value of graduate education and the key elements of the Anglo-Saxon model of the research university. In sum, the results suggest that Mexican knowledge driven students are in graduate education because they understand that knowledge and research are the drivers in the knowledge economy, although financial return seems not to drive them completely. In turn, Mexican anti-scholarly driven students highly embrace the marketization of higher education and want to navigate graduate education to obtain a degree that provides them economic advancement. Important to note is that the first is a view for self and the second a view for others. Nevertheless, the remarkable insights gained from both views equally support and challenge the emulation of the Anglo Saxon model.

On the one hand, they seem to indicate that the table is set for an adoption of the model because students' primary values favor the shift. In this case, the ranking and the values assigned to the explored elements, the themes that emerged in each view, and the value given to particular statements may inform the adoption and/or adaptation of the model or some key elements. On the other hand, the insights of both views (for example, on the low value assigned to key elements and dimensions such as flexibility of curriculum, autonomy, structuring of academic programs, and participants' suggested additional elements and dimensions) may suggest limited future adoption and/or adaptation.

Concerning the decline in the matriculation of international students at U.S. higher education institutions, the results of this study provide surprising insights. Chapter I presented the growing conversations on the decline and the possible consequences of not addressing this crucial issue. The results of this study indicate that over a third of all

international students share with American students the knowledge driven value orientation with regard to their graduate education in the United States, assigning positive values to at least some dimensions of the key elements of the Anglo Saxon model of the research university. Almost a third of international participants emphasize the scholarly driven value orientation. About a third of the participants are very critical of the money driven value orientation of some American students. The insights gained regarding their values of the key elements, the emerging themes in each view, and the value assigned to particular dimensions of graduate education, may be helpful for responding to the matriculation decline, as subsequently discussed.

The elements and dimensions that were poorly valued may raise considerations and prompt strategies to recruit international students. For example, the lowest ranked element was “Promotion of autonomy and decentralization.” The only dimensions that received positive value were “Developing independent learning” and “Getting preparation to be autonomous.” Specific strategies emphasizing these elements could translate into matriculation increases. The same may be true for other elements. As the literature indicates, the Anglo Saxon model has proven to be successful and higher education institutions seem to rely almost exclusively on that success to attract international students (Arthur et al, 2007; Arthur & Little, 2012; Finn, 2007; Gill, 2008; Teichler, 1998; van Santen, 2010; Yao, 2009). However, given the growing decline, it may be time to not only enhance the promotion of the most attractive key elements, but also to address those perceived as having lower value among international graduate students. Given the seeming uniformity of higher education promoted by economic

globalization, the least understood or valued elements may be a primary source for differentiation and increased attraction.

When asked to expand on their views of the key elements during post-sort interviews, some international students mentioned additional key elements that were described in chapter IV. These elements deserve consideration and conceptualization that may derive in a reconceptualization of the Anglo Saxon model of the research university. The decline in the matriculation of international students is a critical current problem in the United States that will likely grow in coming years (de Witt, H., Ferencz, I., & Rumbley, 2012; McCloud, 2004; Yelland, 2011). Insights gained from these results may inform strategies to address the decline. In addition to the stated purposes of this study, a desired outcome was gaining insight on Mexican and international students' views that may inform policy and practice on (1) the emulation processes of the Anglo Saxon model of the research university in Mexico and other non-Saxon nations, and (2) policy and practice aimed at facing the challenges of the declining trend in the matriculation of international students at U.S. higher education institutions. The findings, although limited in generalizability, fulfilled both the purposes and the desired outcome. As the first exploratory study of the views of graduate students of the Anglo Saxon model of the research university, the design and the results of this study facilitated formulation of recommendations for theory, research, and practice, which are presented in subsequent sections.

## **Discussion**

The results of this study echo considerations found in the literature related to the emerging conceptualization of the Anglo Saxon model of the research university, as

presented in chapter I. First, the findings of this study indicate that the majority of students highly value graduate education as a means for economic advancement. “Understanding of knowledge as national capital” was the element that received the highest positive value among Mexican participants and among the three groups of participants. The interpretation of knowledge driven and money driven orientations evidence the pervasive notion of knowledge as capital and graduate education as an investment for returns. In this context, the unquestioned adoption/adaptation of the Anglo Saxon model, as some authors suggest, may further advance the marketization of higher education and other neoliberal practices in Mexico, and in other non-Saxon countries (Acosta-Silva, 2002; Cucchiara, Gold & Simon, 2011; Hershock, 2010; Hutchison, 2011; Judson & Taylor, 2014; Taylor & Judson, 2011; Lynch, 2006; Kleypas & McDougal; Wanger and Azizova, 2009; and Wang and Wanger, 2011). Second, the results suggest that money driven students (which, according to participants, represent a large percentage of students) are in graduate education trying to navigate programs to obtain a degree without placing value on academic work. In this context, some authors warn that if higher education institutions emulate only some elements of the model (such as “Flexibility of curriculum and growing stratification of degrees” and “Promotion of Autonomy and decentralization”) they may put themselves at risk in a global institutional environment and a global economy in which they will need to strive for resources and legitimacy (Aboites, 2010; Acosta-Silva, 2002).

Third, the findings indicate that knowledge driven and scholarly driven students focus primarily on preparation to become professional leaders. Some authors suggest that by focusing exclusively on some elements of the model such, as knowledge, research,

and the use of English as lingua franca (and thus focusing primarily on capitalism and the preparation of productive workers), higher education institutions may diminish their emphasis on public provision and on the public good (Hershock, 2010; Hutchison, 2011). Similarly, other authors argue that favoring marketization and globalization may impact what is taught and what is researched (Porter & Vidovich, 2000; Weber & Duderstadt, 2008). Fourth, the results suggest that scholarly driven is a value orientation defined by international and Mexican students. This value orientation places a high value on research and publication and the lowest value on “Knowledge as national capital,” which indicates that social and cultural values exist. Participants’ comments in post-sort interviews also emphasize the cultural and social values of American, international, and Mexican students. In this context, as some authors proffer, emulating a model that was designed to fit other realities (economic, political, social, etc.) may have negative effects on access (van der Wende, 2007), diversity, and equity (Allen, Bonous-Hammarth, & Teranashi, 2006), in particular through the reproduction of class and gender differences (Koirala-Azad & Blundell, 2011).

Almost two decades ago, Edwards (2000) addressed the risks of emulating a model that prioritizes science and technology, that fits the economic development of countries like the United States and Canada, but that may be counterproductive to developing economies such as those of Latin America. In this regard, Mexican socio-economic, political, and cultural realities make it difficult to adopt an approach to higher education that may not respond to the developmental needs of the country. The results of this study indicate that at least three perspectives exist among Mexican students and that a uniform

approach to education may neither fit the educational contexts nor the economic development of countries like Mexico.

Finally, the results of this study provide insights regarding the emulation of the Anglo Saxon model. On one hand, results indicate that some Mexican students highly value some elements of the Anglo Saxon model, coinciding with the values of graduate education of American and international students. On the other hand, other Mexican students perceive not only that some students hold an anti-scholarly orientation but also that higher education would benefit from a model shift that focuses on flexibility and economic advancement. In this regard, as discussed in chapter I, some authors suggest that higher education institutions and higher education systems must consider that moving toward new models implies shifting paradigms (Aboites, 2010; Bernasconi, 2008; Ibarra-Colado, 2003; Jiménez-Ortiz, 2001; Kent, 2015). For Mexican universities, shifting from a historical Latin American model that focused on public provision and the public good toward one that focuses on personal economic advancement and the private good may be both rewarding and challenging.

### **Limitations**

The primary purpose of this study was to explore the subjectivity of American, international and Mexican graduate students, focusing on the exploration of the views among the three groups of participants. Thus, resulting factors from the first-order analysis were analyzed exclusively in terms of the sorts for self or for others loading on each factor and were not interpreted. The results of the second-order analysis and conclusions of this study are limited to those graduate students who participated because the methodology used focused on the exploration of their viewpoints and not on sample



or population generalizability. Participants in this study were Mexican graduate students studying in Mexico, and American and international graduate students studying in the U.S. from a limited number of countries and ethnicities. Thus, the relevance of their insights may be limited to participants' countries of origin and to those studying in Mexico and the United States. Unequal numbers of male and female participants per group limited further gender comparisons. American and Mexican participants were graduate students from education majors and international participants were graduate students from a variety of majors, which limited a comparison based on academic programs. This study was conducted at two universities, a public research university located in mid-west United States and a private non-profit university located in central Mexico. Type and control of institutions where participants were enrolled may have limited the diversity and the associations of participants' points of view. Findings reflect participants' values at the time of sorting.

### **Recommendations**

The following recommendations derive both from the research process and the results of this study.

#### **Recommendations for Theory**

This study intended to assess empirical support for the preeminence of key elements of the Anglo Saxon model of the research university, particularly those proposed by Wanger, Azizova and Wang (2009) and Wang and Wanger (2011). Findings support the key role of all six elements explored. Surprisingly, the sixth element "Understanding of knowledge as national capital" was perceived as the most valuable. As a construct for this study, this element prompts theoretical reconceptualization. The

findings concerning the perceived value of the other five elements may also contribute to further reconceptualization. The negative value assigned by the majority of participants in this study to “Flexibility of curriculum and growing stratification of programs/institutions,” “Structuring of academic degrees in three tiers,” and “Promotion of autonomy and decentralization of higher education” require theoretical analysis. Additional elements in the findings, such as the financial support system for students and athletics, perceived as key elements, may require reconceptualization as referents for emulation, potentially warranting inclusion in the emerging model and theory of the Anglo Saxon model.

The use of Q methodology in this study may contribute to the application of this methodological design and method in new fields of knowledge. Statements included in the Q set of this study explored dimensions within each element that were commonly cited in the literature. However, the literature review for this study indicated that elements and dimensions (such as flexibility of curriculum, flexibility of programs, structuring of academic programs, autonomy, and decentralization) require further theoretical conceptualization. Participants’ insights on those dimensions may contribute to the conversation regarding both Anglo Saxon and Latin American contexts of higher education. The inclusion of American, international, and Mexican students in this research may also allow utilization of the findings in different bodies of literature. Finally, the results of the exploration of the subjectivity of these particular participants may contribute to theoretical discussions on individual and sociological constructions of meaning of graduate education.

### **Recommendations for Research**

This Q Methodology research was the first exploratory study on the subjectivity of students of the key elements of the Anglo Saxon model of higher education. As such, it opened a wide array of possibility for future Q methodological studies, as well as research with distinct designs.

This study focused on the exploration of the views among the three groups of participants. Thus, the factors within the groups were analyzed exclusively in terms of the sorts for self or for others loading on each factor and were not interpreted. Future studies may focus on exploring the views within a particular group. Future studies may also address other comparisons based on demographics such as gender, age, ethnicity, or type of higher education program. This study explored the subjectivity of graduate students. Future Q studies may explore the subjectivity of undergraduate students, which may differ from that of graduates. Comparative studies of subjectivity within undergraduates and across higher education tiers may also provide deeper insights.

Participants in this study were students enrolled at two universities in the United States and Mexico. Both institutions were located in the central region of their countries. P sets from other regions of the United States could facilitate insight into possible extant heterogenous perceived values of American and international students dependent on the location in which they conduct their graduate studies. Studies using P sets from other Latin American countries could provide valuable information on different subjectivity within the region. The sites where data collection was conducted were different. Studies conducted in similar urban or rural settings may also provide unique findings. The size, type, and control of the universities from which the P sets were selected were different. One was a public research university of over 32,0000 students. The other was a private

non-profit university with an enrollment of about 17,000 students. Future research may include P sets from universities of the same size, type, and/or control to explore if subjectivity differs.

Different Q sets about the same elements of the model may be used in future research to explore the perceived value through a different set of stimuli derived from them. The exploration of additional elements of the Anglo Saxon model may contribute to a wider discussion of the preeminence of those explored in this study. An exploration of the key elements of other models, in particular those of the Latin American model of the university, may allow richer comparisons and contrasts and, in turn, contribute to further inform policy makers and practitioners.

This study was intended to set an empirical precedent and a referent for future research, on both the empirical exploration of the issue and on the use of Q methodology in this field of knowledge. Now, the possibilities for future research and for the application of Q methodological designs seem endless.

### **Recommendations for Practice**

The views within and among the groups revealed in this study may inform policy makers and practitioners in the United States and Mexico. The particular views of each group concerning the six elements explored in this research provide insights that may inform policy and practice in different contexts. The views of American students may inform policy and practice in the United States pertaining to issues such as research production, online instruction, length of programs, and the inclusion of other languages in higher education. For example, American students seem to favor knowledge acquisition but do not place much value on research. Policy makers and practitioners may consider

the redesign of graduate programs to include a greater emphasis on the production of knowledge. The results of this study indicate that American students do not seem to value much online instruction. Increasing online offerings may be reconsidered. The findings of this study also suggest that American students favor the inclusion of other languages in graduate education. The use of English as the only language of instruction in graduate education may also be reconsidered.

The views of international students may similarly inform policy and practice, particularly those aiming at recruitment and retention by U.S higher education institutions, on issues such as knowledge and research production and publication, flexibility of curriculum, administrative processes, and student autonomy which were valued highly. For example, the findings of this study indicate that international students prefer programs that emphasize research and preparation to publish in the English language. Redesigning graduate programs that include a greater emphasis on research mentoring and language training to conduct scholarly work and to publish in English may be an effective strategy to attract international students. The views of international students may also inform policy and practice on issues that they negatively valued of the model, such as institutional autonomy, the stratification and length of programs, and the use of English as the only language of instruction. Mexican students' views may inform national policy and institutional practice with regard to the emulation of the key models explored in this study.

Finally, the views of Mexican students may inform Mexican policy on research production and publication, institutional autonomy and decentralization, the use of English language in Mexican higher education, and the stratification of programs. For

example, the results indicate that Mexican students do not place much value on research production. Policy makers and practitioners may consider redesigning graduate programs to emphasize the production over the consumption of research. The results also indicate that Mexican students do not value much the inclusion of the English language in graduate education. Current policy and instructional practice may be reconsidered. The perceived value by Mexican students of all six key elements explored in this study may inform the practice of Mexican higher education institutions with regard to their emulation. For example, the low value assigned to “Flexibility of curriculum and growing stratification of programs/institutions,” “Structuring of academic degrees in three tiers,” and “Promotion of autonomy and decentralization of higher education” may inform the decision to emulate these elements. As described above, the views and values among the three groups of participants may inform graduate education policy and practice of institutions in the United States and Mexico, as well as in other countries, to better serve graduate students.

### **Concluding Comments**

The Anglo Saxon model of the research university is still an emerging conceptual construct and requires further empirical exploration of its key elements. The findings supported the preeminence of the six elements explored in this study. Distinct graduate students’ views and the perceived values of some dimensions of the elements, as well as suggested elements, however, require further consideration and exploration.

Globalization and international competition will likely continue to enhance the shift toward this model, or at least the emulation of some of its key elements, in non-Anglo Saxon regions and nations. Increasing competition and the consolidation of newer higher

education systems will also likely escalate the decline in the matriculation of international students, not only at U.S. higher education institutions but potentially at higher education institutions in other countries as well. Further exploration, understanding, and inclusion of students' perspectives are crucial for higher education institutions to preserve their spirit of universality and inclusiveness while also becoming more globally competitive and attractive.

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## APPENDICES

### Appendix A IRB Approval

#### Oklahoma State University Institutional Review Board

Date: Thursday, May 08, 2014  
IRB Application No ED1473  
Proposal Title: Exploring the Views of American, Mexican, and International Students of the Anglo-Saxon Model of the Research University: A Q Methodology Study  
Reviewed and Exempt  
Processed as:

**Status Recommended by Reviewer(s): Approved Protocol Expires: 5/7/2017**

Principal Investigator(s):

Edgar Apanecatl-Ibarra	Stephen P. Wanger
320 Willard	309 Willard
Stillwater, OK 74078	Stillwater, OK 74078

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The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval. Protocol modifications requiring approval may include changes to the title, PI advisor, funding status or sponsor, subject population composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms
2. Submit a request for continuation if the study extends beyond the approval period. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of the research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Dawnett Watkins 219 Cordell North (phone: 405-744-5700, dawnett.watkins@okstate.edu).

Sincerely,



Sheila Kennison, Chair  
Institutional Review Board

## Appendix B

### Q Set

#### English Version

1. Acquiring knowledge that makes me more competitive	2. Studying a demanding graduate program	3. Taking courses without prerequisites	4. Studying a program that has minimal legal regulations	5. Studying a program that emphasizes research over teaching	6. Publishing in English
7. Creating new knowledge	8. Studying in English speaking countries	9. Having a graduate degree	10. Being able to transfer from one institution to another	11. Studying at a university with little bureaucracy	12. Publishing research studies
13. Obtaining a university degree to get a better job	14. Reading academic materials in English	15. Following the bachelor-master-doctorate sequence	16. Conducting multidisciplinary work	17. Developing independent learning	18. Conducting research in class
19. Not using materials in languages other than English	20. Learning new knowledge in class	21. Studying more than four years at a university	22. Taking distance learning classes	23. Getting a degree without government intervention	24. Improving research skills
25. Getting preparation to be a professional leader	26. Improving my English proficiency	27. Taking graduate courses	28. Studying a flexible graduate program	29. Getting preparation to be autonomous	30. Taking classes that integrate theory, research and practice
31. Writing a thesis or dissertation	32. Completing administrative processes easily	33. Studying to succeed economically	34. Getting university instruction exclusively in English	35. Having incremental graduation requirements	36. Choosing a program based on university rankings



Spanish Version

1. Adquirir conocimientos que me hagan más competitivo	2. Estudiar un programa demandante	3. Tomar clases sin prerequisites	4. Estudiar un programa que tenga regulaciones legales mínimas	5. Estudiar un programa que ponga más énfasis en la investigación que en la enseñanza	6. Publicar en inglés
7. Crear nuevos conocimientos	8. Estudiar en países de habla inglesa	9. Tener un posgrado	10. Tener la oportunidad de transferirme de una institución a otra	11. Estudiar en una universidad con poca burocracia	12. Publicar estudios de investigación
13. Obtener un grado universitario para conseguir un mejor empleo	14. Leer materiales académicos en inglés	15. Seguir la secuencia licenciatura-maestría-doctorado	16. Realizar trabajo multidisciplinario	17. Desarrollar mi aprendizaje autónomo	18. Realizar investigación en clase
19. No usar materiales que no estén en inglés	20. Aprender nuevos conocimientos en clase	21. Estudiar más de cuatro años en una universidad	22. Tomar clases por internet	23. Obtener un título sin intervención gubernamental	24. Mejorar mis habilidades de investigación
25. Obtener preparación para ser un líder en mi profesión	26. Mejorar mi nivel de inglés	27. Tomar clases de posgrado	28. Estudiar un programa de posgrado flexible	29. Obtener preparación para ser autónomo	30. Tomar clases que integren teoría, investigación y práctica
31. Escribir una tesina o una tesis	32. Completar procesos administrativos fácilmente	33. Estudiar para tener éxito económico	34. Obtener instrucción universitaria en inglés exclusivamente	35. Tener requisitos para graduación acordes al nivel de estudios	36. Elegir un programa con base en la clasificación de las universidades

## Appendix C

### Demographic Survey

1. What is your gender (please check one)?     Female     Male
2. How old are you?     years
3. Please check the item that best describes your ethnicity. Check all that apply.  
 African American                       Asian American  
 Hispanic/Latino(a)                       American Indian  
 White     Other, please specify: \_\_\_\_\_
4. What is the highest degree that you have completed (check one)?  
 High School Diploma                       Associate's Degree  
 Bachelor's Degree                               Master's Degree  
 Doctorate Degree                               Other, please specify: \_\_\_\_\_
5. How many years have you been at OSU as a graduate student? \_\_\_\_\_
6. How many years of experience do you have in the following categories?  
 Undergraduate student  
 Graduate student  
 Faculty member  
 Other, please specify \_\_\_\_\_
7. What is your current status at the university?  
\_\_\_\_\_
8. What else would you like to say about the ideas on the statements you sorted?

A follow-up phone interview may be conducted to clarify results. If you would be willing to participate in a phone interview please write your first name (or a code name that you will know) and a telephone number at which you can be reached.

(CODE) NAME \_\_\_\_\_ PHONE \_\_\_\_\_

## Appendix D

### Statements with z-Scores and Array Ranks by View

S #	Statement with Element Code	Knowledge Driven		Money Driven		Scholarly Driven	
		z-Score	Rank	z-Score	Rank	z-Score	Rank
1	[KNC] Acquiring knowledge that makes me more competitive	1.80	1	1.21	4	0.00	21
2	[APS] Studying a demanding graduate program	0.26	16	-1.21	32	0.00	16
3	[FSP] Taking courses without prerequisites	-1.47	35	0.73	10	-0.44	25
4	[PAD] Studying a program that has minimal legal regulations	-1.33	33	-1.19	31	-1.33	33
5	[IRH] Studying a program that emphasizes research over teaching	0.20	17	-0.48	25	0.89	10
6	[ELF] Publishing in English	-0.56	25	0.00	17	1.77	1
7	[KNC] Creating new knowledge	1.08	7	-0.25	21	0.00	17
8	[ELF] Studying in English speaking countries	-1.31	32	0.95	7	1.33	3
9	[APS] Having a graduate degree	0.57	12	1.44	3	-1.33	34
10	[FSP] Being able to transfer from one institution to another	-0.60	26	0.00	18	0.44	15
11	[PAD] Studying at a university with little bureaucracy	-0.94	29	-0.97	30	-1.33	31
12	[IRH] Publishing research studies	0.92	8	-0.01	19	1.77	2
13	[KNC] Obtaining a university degree to get a better job	1.17	6	1.92	1	-1.77	35
14	[ELF] Reading academic materials in English	-0.52	24	0.71	11	1.33	4
15	[APS] Following the bachelor-master-doctorate sequence	-0.49	22	0.49	13	-0.44	24
16	[FSP] Conducting multidisciplinary work	0.78	9	-1.69	36	0.44	11
17	[PAD] Developing independent learning	0.67	11	-0.48	24	0.44	12

18	[IRH] Conducting research in class	0.39	14	-1.44	34	0.44	13
19	[ELF] Not using materials in languages other than English	-1.28	31	0.95	8	0.89	7
20	[KNC] Learning new knowledge in class	1.34	5	0.49	14	-0.44	23
21	[APS] Studying more than four years at a university	-1.53	36	-0.95	27	0.89	8
22	[FSP] Taking distance learning classes	-0.19	20	0.48	15	-0.44	22
23	[PAD] Getting a degree without government intervention	-0.72	27	-1.22	33	0.00	18
24	[IRH] Improving research skills	1.36	4	-0.96	28	0.00	19
25	[KNC] Getting preparation to be a professional leader	1.74	2	0.97	6	-0.89	29
26	[ELF] Improving my English proficiency	-1.45	34	-1.67	35	0.89	9
27	[APS] Taking graduate courses	-0.15	19	-0.47	23	-0.89	27
28	[FSP] Studying a flexible graduate program	0.33	15	0.23	16	-0.89	28
29	[PAD] Getting preparation to be autonomous	0.48	13	-0.23	20	0.44	14
30	[IRH] Taking classes that integrate theory, research and practice	1.48	3	-0.26	22	0.00	20
31	[IRH] Writing a thesis or dissertation	0.12	18	-0.69	26	1.33	5
32	[PAD] Completing administrative processes easily	-0.82	28	0.71	12	-1.33	32
33	[KNC] Studying to succeed economically	0.71	10	1.92	2	-1.77	36
34	[ELF] Getting university instruction exclusively in English	-1.28	30	1.19	5	1.33	6
35	[APS] Having incremental graduation requirements	-0.51	23	-0.96	29	-0.89	30
36	[FSP] Choosing a program based on university rankings	-0.25	21	0.74	9	-0.44	26

VITA

Edgar ApanecatI-Ibarra

Candidate for the Degree of

Doctor of Philosophy

Thesis: EXPLORING THE VIEWS OF AMERICAN, INTERNATIONAL AND  
MEXICAN STUDENTS OF THE ANGLO SAXON MODEL OF THE  
RESEARCH UNIVERSITY: A Q METHODOLOY STUDY

Major Field: Educational Leadership and Policy Studies

Biographical:

Education:

Completed the requirements for the Doctor of Philosophy in Educational Leadership and Policy Studies at Oklahoma State University, Stillwater, Oklahoma in May, 2016.

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Experience:

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2001 – 2008. Instructor of French, Spanish and English at Universidad de las Américas-Puebla, Cholula, Puebla, Mexico.