Fall 2017

Levels Of Development Among Saudi Arabian Students Studying At An American University

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LEVELS OF DEVELOPMENT AMONG SAUDI ARABIAN STUDENTS STUDYING AT AN AMERICAN UNIVERSITY

by

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A capstone submitted in partial fulfillment of the requirements for the degree of Master of Arts in Education

Hamline University

St Paul, MN

December 2017

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To my family, who provide the *why* answers to so many of life's questions.

ACKNOWLEDGEMENTS

Special thanks to the participants of the study, who gave their free time – which is never in abundance as an undergraduate student – to assist with this research.

Special thanks also to my Capstone Committee, who helped shape this rough outline of a foggy idea into actionable research and who guided the process with a steady hand. Your contributions were greatly appreciated.

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CHAPTER ONE: INTRODUCTION

There are now over one million international students studying at US colleges and universities, and the number has increased by seven percent from 2015 to 2016. With this rise in international students pursuing degrees in the U.S. has come an increased need for services specific to this population on campuses.

These students bring diversity and a greater intercultural experience to university communities, along with many economic benefits as well. Many schools have dedicated international student services and most have clubs and organizations whose function is to support international students. Most of the support services available to students focus on academic issues such as study skills, literacy and differences in classroom styles between cultures. There are efforts in student services at colleges and universities to promote development – that is, to assist students in strengthening complex cognitive skills such as reflection and critical thinking (Calhoun, 1996). These efforts have tended to apply to all students, without specific efforts being made to promote or understand development in international students.

Development, for the purposes of this study, is defined as the forms in which a person perceives his or her world, and how these forms develop and change via processes of intellectual and ethical challenges and struggles (Perry, 1968). The basic underlying idea is that students move from one mode of thinking and meaning-making – that of dualistic, right-and-wrong thinking – to contextual, relativistic thinking – e.g. truth depends on context, multiple correct answers exist – throughout their educational journey

at college (Perry, 1968). Each of these formal changes can be marked by a distinct position, or stage.

The purpose of this study is to examine the intellectual development stages of Saudi Arabian studying at an American university. By understanding the development stages students are in, and how they view concepts such as knowledge and truth, I believe faculty and staff can see differences in how different student populations understand their processes of learning and nature of knowledge, and can then begin to facilitate intellectual development growth and movement. By intervening early, and resetting classroom expectations for development, faculty and staff can assist students in development.

Background of the Researcher

In my current position as an academic advisor to international students at a medium-sized university in the Midwest, I have an opportunity to guide students in their academic pursuits. I have worked as an advisor for seven years and have been privileged to work with students from many different cultures and backgrounds. In my current position I serve as the primary advisor for students from 15 countries. The majority of these students are from Saudi Arabia.

Purpose of Research

In my role as academic advisor, I am in a unique position to help individual students with individual issues. There are some college navigational issues which seem to apply to all students – examples include communication with offices which have traditionally low student contact (Registrar, Academic Affairs), petition processes, admission and transfer

logistics. However, many issues encountered by Saudi students are either specific to that population or are shared only by other international students. An example of a specific issue related only to Saudi students is navigation and assistance with regards to their scholarship requirements. In addition to those requirements, they are required to maintain their U.S. visa status, which requires reporting by both student and institution. All of this puts me in a unique position to both assist students with universal issues shared by all undergraduates, and assist with highly specific issues shared only by a cohort of students. Because of this, I view the study through a lens of personal and professional development.

Being involved in international student services is an opportunity to interact with many levels in the educational system. Though my working day is spent primarily working face-to-face with students in my office, I also regularly contact faculty, administration and other student services in response to student issues. Beyond that, I study and participate in professional development through international education professional organizations such as NAFSA Association of International Educators and MIE (Minnesota International Educators). And further beyond that, I am in regular communication with representatives of USCIS (United States Customs and Immigration Services) and representatives of the Saudi Arabian Ministry of Education. My work with all of these levels of the educational system has both expanded my understanding of the greater workings of international education, and similarly focused and strengthened my understanding of students' positions, rights and benefits within that system.

In all of my work, I find myself continuously pushing to further understand and contextualize specific student experiences within the greater educational system. As

such, I find myself curious and wanting to know more not only about issues related to differences in culture, language and academics, but issues of personality, values and development. I am curious about what motivates students to succeed on an individual level and seeing how the work we do in student services affects or does not affect that motivation.

In my work with students, some of the most difficult conversations revolve around troubles they are having with courses and the work they are assigned in and out of class. I have noticed that students who have the most difficulty often refer to an instructor not being "clear" as to what they are looking for in a paper, or an assignment being too "open" as to what the topic could or might be. I have also noticed that students seem to register for certain instructors en masse according to reviews from other international students. While this behavior in itself is not surprising – "rate my professor" sites are extremely popular with domestic students as well – I began to think of this behavior through the lens of development. If students were taking a course with specific instructors based on what a friend or family member had advised them, they were possibly not yet at a developmental level which would allow them to consider the context in which the material is being taught. The idea that a student would want to go through the exact same experience as another student, and would, in a manner of speaking, fear the unknown of a different instructor, could speak to the student being not yet developmentally able to embrace ambiguity and the relativism of truth. I began to see this not as a cultural issue – as stated, students from all backgrounds exhibit this behavior from time to time – but as a developmental issue. I began to wonder then if students from Saudi Arabia differed from non-Saudi students in their levels of development based

on factors such as age and number of years exposed to English. I questioned if age was a factor in their development due to research on college age students. P.M. King, et al (1983) provided longitudinal data suggesting a growth in intellectual development and that growth's influence of educational experiences. I also only had anecdotal evidence, but my prediction was that students who were more willing to try a new instructor or a new subject often maintained a higher GPA and experienced an overall easier educational journey.

Role of the Researcher

As an advisor, I planned to ask students if they would be willing to participate in a study which would help me understand how developmental levels are connected with age, number of years exposed to English, GPA and rate of course completion. I planned to approach them as their advisor and a researcher, and communicated to them that this research will ultimately help them and others understand the best ways to deliver services to international students.

Research Questions

This study was designed to explore developmental levels of Saudi students at an American university. I studied if the data gathered during administration of a developmental assessment will illuminate patterns and connections which may help to understand Saudi Arabian students' epistemological processes. My questions are:

- What are seven Saudi students' level of intellectual development?
- How if at all do their levels of intellectual development relate to GPA, rate of completion, age and years exposed to English?

- Do any patterns of responses to questions in the MER arise?
- Are there any patterns of connection among specific domains of the MER?

I studied developmental levels based on the theories of William Perry and Marcia Baxter Magolda of Saudi Arabian students studying in the United States. I examined students' position on a four stage scale (Dualism, Multiplicity, Relativism, Commitment) which was developed by William Perry (1970). I then compared the student's developmental stage with their current GPA and rate of course completion. I also gathered demographic information – age, number of years exposed to English – to connect with developmental stage and developmental data gathered from questionnaire responses. I hoped to learn if development of Saudi students relate to age and number of years exposed to English, and if Saudi students who are at higher developmental levels demonstrate higher GPAs and rates of completion. I was also interested to learn if the earlier a student is exposed to English, the higher their development level upon entering college.

CHAPTER TWO: LITERATURE REVIEW

This study was designed to explore developmental levels of Saudi students at an American university. I studied if the data gathered during administration of a developmental assessment will illuminate patterns and connections which may help to understand Saudi Arabian students' epistemological processes. My questions are:

- What are seven Saudi students' level of intellectual development?
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This chapter presents an overview of three main areas of research and how they help to inform this study. The first section – Intellectual and Ethical Development - examines research on intellectual development in college students. Next, research on Saudi Arabian culture and cross-cultural research on development is presented.

Intellectual and Ethical Development in College Students

In the first section of this literature review, I will examine relevant research on the field of intellectual and ethical development of college students. Developmental theorists have sought, in part, to define how humans – and college students in particular – gather knowledge and define truth. Major theorists and important studies are discussed here, as well as differences in theories and reasons for choosing one over others.

Development can be broadly defined as intellectual growth through conception and perception of the external world (Piaget, 1955). More narrowly defined, development is said to be the way one makes meaning of their experience, and the phases they travel through in this process (Kegan, 1995). Development has been studied in various ways: cultural and bio-social development in which humans develop through activity with their social environment (Vygotsky, 1978), situational cognitive development in which human learning is inseparable from experience and that knowledge is bound to context (Brown, Collins & Duguid, 1989), and constructivist theories in which humans are active organizers of experience (Piaget, 1952, Mahoney, 1991). Piaget specifically has defined a stage-based system of cognitive development for children, consisting of four distinct stages. However, the final stage in Piaget's scheme begins at adolescence, which stops short of addressing developmental changes in early adulthood, that is, traditional college age and beyond (Piaget, 1952).

The scheme chosen for this study was developed by William Perry in 1968 while advising students at Harvard University in Cambridge, MA. Perry was an academic advisor who noticed growth in their critical thought idea capacity and moreover, how students evolved in how they perceived the concept of truth in their coursework. Perry concerned himself epistemologically – that is, how students perceive and process the ideas of truth and knowledge. Perry's scheme for ethical and intellectual development was first published in research in 1968, and then followed by his first book in 1970. Since the time of these publications, others in the developmental psychology field have sought to expand on and strengthen Perry's theory and ideas.

Robert Kegan was a developmental psychologist who worked in the Harvard Graduate School of Education like William Perry before him. Kegan is responsible for numerous contributions to the theory of development, and has, in part, expanded on William Perry's theory of intellectual development. Kegan himself refers to Perry's work as "ahead of its time" (Kegan, 1982) and stakes his theory on the fundamental understanding that human beings are "meaning-making organisms" – a phrase first coined by Perry (1970). A main hallmark of Perry's theory was that an essential act of being a human was how one constructs meaning. His idea was that knowledge and experience weren't so much what happened to us, but rather, how we made sense out of what happens to us (McAuliffe & Strand, 1994).

Attempting to further Perry and Piaget's work into a development pattern for humans of all ages (and renaming it "human development", rather than "cognitive development in children"), Kegan (1982) put forth Constructive-developmental theory. Kegan began with epistemology – essentially, a way of knowing – and defined that in terms of a subject-object relationship (1982). Kegan's theory – like Perry's and Piaget's before him – stems from the subject-object relationship. Whatever a person could reflect on, look at, or have perspective on (Drago-Severson, 2004), that was considered "object". Whatever a person identified with, which could not be reflected upon, was considered "subject". Kegan, then, essentially agreed with the basic principles of development as outlined by Piaget and Perry, but took those ideas farther by expanding his developmental approach in four important ways. First, whereas Piaget focused on the development of children, constructive developmentalists like Kegan expanded the principles of those developmental processes across the lifespan into adulthood. Second, whereas Piaget

focused on external logical performances of children, Kegan focuses on the limits of performance between stages of development and how they are driven by development of internal information processing systems. Third, while Piaget remained focused on cognition via elaboration of logic, Kegan and constructive developmentalists accounted for other types of reasoning as well as emotion (Kegan, 1994). Finally, while Piaget examined the external descriptions of changing cognition, Kegan expanded his focus to include personal, internal experiences of development (Lindsley, 2011). Kegan further organized these subject-object relationships into six stages in his theory, however, the first three typically occurred during childhood. Further, Kegan proposed that the final stage of his theory, Interindividuality, is only ever achieved in a full sense by a small percentage of adults, and that no one under 35 has been found to be in this stage completely (1991).

William Perry posited nine distinct developmental positions, charting how students move through these positions and the various ways meaning is constructed at each. Each position represents a higher mode of thinking (Erwin & DeMars, 2003). Those in the lower positions tend to view knowledge in simplistic ways, while those in higher positions view knowledge in a more complex and diverse manner. Further, though he articulated nine positions, Perry grouped the positions into four categories: dualism, multiplicity, relativism and commitment.

The first position, dualism, represents the first stage for a student in their developmental process. Students in this positions see a basic duality in knowledge – there is a distinct correct and incorrect solution for every problem (Perry, 1999). The student perceives ethical issues in terms of good vs. bad, and identifies instructors as

authority. The dualistic student views the authority as the provider of knowledge, and there is no separation between the authority and that knowledge (Perry, 1999). Students do not raise questions of where the authority receives their rightness – it is assumed that it is innate and that right answers have always been right answers. Students in this position also define themselves primarily by membership in the right and traditional. They possess a strong sense of us vs. them, meaning they identify those who think about issues in a different way than they do as "others" that can be easily dismissed (Perry, 1999).

Students then experience a developmental shift as they begin to see that the world and knowledge specifically are sometimes not as easily explained as right vs. wrong (Perry, 1999). In the position of multiplicity, students begin perceiving that different answers to questions exist. They do not perceive their authority to be wrong about any given issue – but simply by recognizing that others think differently than them and the authority is the first sign of a student entering this stage. Still though, students in multiplicity may encounter a situation where the authority wants them to think a different way about a topic. If the authority seems to genuinely not know the correct answer, students in this stage will assume the authority doesn't know the answer *yet*. But knowledge is still viewed in terms of absolutes – the absolutes exist, but they may not be known yet or the teacher may want the students to find them, but they are knowable in the eyes of a student in this stage.

When enough examples of the authority not having the correct answer have been encountered, and a student has sufficiently moved beyond thinking about knowledge as right vs. wrong, the student is said to be in the relativistic position. The hallmark of relativism is the understanding that truth depends on context, and that true knowledge

comes from the examination of multiple viewpoints. Students in this stage will not be satisfied that they fully understand a concept until they have viewed it from more than one perspective. In Perry's explanation (1999), students in this stage now view the authority as "an authority", and with that distinction, now view the instructor or content specialist as simply another source to consider as they formulate the truth for themselves.

The final position Perry described was commitment. Those reaching the position of commitment take a stand on their understanding of truth, and are willing to back up their stance with contextual arguments – those drawing upon the context in which an issue occurs, rather than the surface facts. Students in the commitment position begin by recognizing that commitments are necessary – in careers, relationships, education – and that multiple commitments will be needed throughout life. Commitment is the final stage of Perry's developmental scheme, and he found this position to be virtually impossible to attain while students pursue an undergraduate degree.

In a follow up study (1999), Perry found that students could actually move forward and backward in the scheme depending on circumstances related to learning new content and being exposed to new environments. This is relevant in that it allows for a constructivist framework to be implemented in classrooms by instructors which helps students advance developmentally through courses. Being exposed to new environments, it was indicated in the 1999 Perry study, helps students move through the developmental positions quicker and with less friction, and that has relevance in this current study. If students are already coming to American universities having been exposed to new environments, they could very well be at a higher developmental level due to that exposure. Also, being a bilingual student should be considered as learning new content –

students who are processing content in two languages are learning it in two different ways and thus could be said to be learning it in different contexts. The longer a student has been doing this in terms of years exposed to English, the higher the student could be on the developmental scheme.

Perry's scheme has also been expanded to numerous other instructional areas (Baxter Magolda & Porterfield, 1988). Haisty (1984) suggested writing exercises designed to push students towards relativistic perspectives – for example, forcing writers to distance themselves from their subjects. Copes (1974) and Buerk (1982) supported teaching mathematics as relativistic in nature in order to reduce math anxiety. Similar studies examined the effect of dualistic and relativistic thinking curriculum design (Kovacs, 1977).

Marcia Baxter Magolda and Constructivist Developmental Theory

Marcia Baxter Magolda is a major figure in the area of constructivist developmental theory. She began her study of intellectual development by encountering William Perry's theory in her graduate studies (Baxter Magolda, 2004). She describes Perry as the pioneer in understanding how adults make meaning, and underscores the importance of listening to students and respecting their current perspectives. In describing her theory of Self-Authorship (2004), she reinforces the tenets advanced by constructivist-development scholars. She draws on Kegan's (1994) use of the bridge metaphor – where students are on one side of the bridge and the educational goal on the other side, with educators needing to create conditions that simultaneously respect and welcome students' ways of making meaning on their side of the bridge, yet help them in

their journey toward the other end. She describes her model of Learning Partnerships as "valuing students' current experience and how they understand it, engaging them in new experiences, and building mutual partnerships among learners and between learners and educators" (2004). She developed a paper-pencil measure of development on the Perry scheme as part of her dissertation (Baxter Magolda, 1983) which she called the Measure of Epistemological Reflection. This measure contained short-answer and essay questions that posed questions about the role of the instructor, learner, peers and the nature of knowledge and educational decision-making. She has subsequently seen studies which have sought to validate the MER and the updated coding manual is now based on over 1,000 MER responses (Baxter Magolda & Porterfield, 1988).

Marcia Baxter Magolda, like Robert Kegan before her, began emphasizing identity and relationships in her theory of development. Baxter Magolda has incorporated cognitive, intrapersonal and interpersonal developmental dimensions into her theories (Baxter Magolda, 2004). Thus, her view on development became a three-pronged Venn diagram. In one circle, there is *epistemological foundation* – the backbone of Perry's theory, that is, knowledge is contextual, and students develop internal belief systems via constructing, evaluating and interpreting judgments in light of available frames of reference. In another circle, there is *intrapersonal foundations* – where students choose their own values and identity by crafting an internally generated sense of self that regulates interpretation of experience. In the final circle, there is *interpersonal relationships* – students' ability to engage in authentic, interdependent relationships with diverse others. Where the three of these meet, Baxter Magolda has designated the term "self-authorship". She summarizes self-authorship as: "the capacity to internally define

a coherent belief system & identity that coordinates mutual relations with others" (Baxter Magolda & King, 2004).

Perry's intellectual development theory spawned research on adolescents and college-age students which sought to confirm his scheme. Bateman and Donald (1987) conducted a study in Quebec, Canada, which aimed to prove the construct validity of Perry's scheme. They attempted to measure the degree to which Perry's stages measured what they claimed to measure – that is, proving that students could fall into one of the nine stages, and that the student's placement in a stage would be confirmed by multiple raters. They tested for convergence in each stage and divergence between the stages. They also tested empirical validity by examining other factors such as time in college, cumulative GPA and gender. In the course of their study, they identified two major positions students take towards knowledge: First, knowledge is comprised of facts and data and that professors supply them. Second, that knowledge is a quest and the student is piloting the journey (1987). This study suggested that rather than stages of development, there were two possible levels or positions – as opposed to the previously hypothesized nine positions which Perry articulated. However, the researchers also noted that they did see distinctions – dualism, multiplicity, relativism and commitment – in the ways instructors described students and how students identified themselves.

Research on Intellectual Development

Development, for the purposes of this study, is defined as the forms in which a person perceives his or her world, and how these forms develop and change via processes of intellectual and ethical challenges and struggles (Perry, 1968). Most of the research on

intellectual development of college students prior to the 1990s was primarily conducted on white college students. One of the first attempts at examining the development of minority learners – and comparing them with Anglo American learners – was made by Durham, Hays and Martinez (1994). They studied the socio-cognitive development of Chicano and Anglo students at colleges in Colorado and New Mexico. They studied five variables: age, gender, class level, holistic score of writing sample, and Perry Level. For class level, they used the number of years a student had studied up until the point they participated in the study. They used the Measure of Intellectual Development (MID) for their assessment tool to define a student's Perry level. The MID consists of three essay questions with a set of rating cues to measure a student's developmental level. These questions ask students for their opinions on their best class (and why), their ideal learning environment, and for a post-course self-evaluation. It is through these answers, and the heavily regimented scoring rubric, that the researcher can determine a student's developmental level on the Perry scale. For the purposes of this study, they used three Perry developmental levels – Dualism, Multiplicity and Relativism. In an attempt to look not only at epistemic levels but at the academic skills of students, the researchers used the students' essay responses on the MID and had them graded by writing faculty at the University where the study was conducted. They then assigned a holistic score of the writing samples, giving them another variable to compare Chicano and Anglo American students. They found different variables interacted with the Perry score for the different populations. In Chicano students, holistic score of the writing sample was most closely connected with Perry developmental level – that is, students who had higher scores from writing faculty on their essays also showed higher levels of development. In fact, none of

the other variables studied – class level, age or gender – correlated with Chicano students' developmental levels. In Anglo students, however, age, class level and holistic score all correlated highly to Perry level – that is, the older a student, the higher their score given by writing faculty, and the more advanced their class level, the more likely they were to have a higher level of development as defined by the Perry scale. This study would seem to confirm that strong writing skills correlate to intellectual development, specifically for these Chicano students. In fact, the single largest demographic contributor to performance on the Perry scale has been number of years in college (Hays, Brandt & Chantry, 1988), which this study found lacking among Chicano students. This study found that Chicano students who performed better in the writing of their essay – an academic writing skill – also had higher Perry levels, that is, they were able to view truth as contextual and use dialectical reasoning.

Other research has attempted to prove cross-cultural applicability of developmental theories, with successful results. One study, by Eleonora Villegas-Reimers (1996), examined whether previous work that empirically tested Kegan's stages of self development and the assessments used in that work could be used in a culture other than the United States. The study first attempted to answer if the subject-object interview – originally developed by Lahey, et al (1988) – could be used to assess meanings made by subjects from another culture – in this case, Venezuela. Second, the study sought to determine if the structures of meanings and their distributions among the population would be similar to those of US subjects. Structurally, they found that the subject-object interview can indeed be successfully used to assess meanings made by

Venezuelan subjects (Villegas-Reimers, 1996), and that the distribution of stages of self development were very similar to those found in the US.

There has also been research specifically examining students' age and type of schooling and the correlation to those students' Perry levels of development. Clinchy, Lief and Young (1977) studied female students from progressive and traditional high schools, comparing the Perry stage levels between sophomores and seniors. They were looking to examine the relation between type of schooling and students' moral and epistemological development. They compared similar age groups at two different schools – a small progressive high school that students could choose to attend, and a traditional suburban public school. The researchers found seniors to be significantly higher in measures of development at the progressive school, but not at the traditional school. They also found sophomores to be equal at both schools. Essentially, the researchers found that while sophomores started in the same place, developmentally, the students in the progressive school developed much faster than students at the traditional school. While this study certainly sheds light on delivery methods of high school education and different systems available to school districts, it only shows age as a correlation to development – it does not show academic performance. My study aimed to explore a connection between academic performance and developmental level.

There also has been research which has examined development across cultural background among adult English language learners and basic education enrollees. Eleanor Drago-Severson (2004) published a qualitative study – based on an earlier study by Robert Kegan, et al (2001) – working with adult populations enrolled in cohort programs in the field of adult diploma completion, basic education and English as a

Second Language courses. The study examined learners through the lens of constructivist-developmental theory, using Kegan's three types of structural thinking – Instrumental Knowers, Socializing Knowers and Self-Authoring Knowers. The study sought to qualitatively gather data on adult learners' experiences in their cohort programs and whether the program design contributed to their development through the constructivist-developmental lens. Participants in this study were from many different cultural backgrounds – West Africa, Asia, Caribbean, and the U.S. – however the responses to questionnaires and interviews all provided the researchers with enough data to properly categorize the students' ways of knowing both at the beginning and the end of the program (Drago-Severson, 2004). This ability to properly categorize learners across cultures indicates that development can be examined cross-culturally and that questions and interviews can be used with learners from different cultures with confidence. This research, however, did not examine specifically college-age students, nor did it focus on Saudi or international students, which my study has attempted to do.

Another study by McKeown (2009) cast the lens of development on study abroad students. The researcher studied two groups of students – those who had participated in a study abroad trip during their undergraduate degree, and those who had not – and examined their correlation to Perry level of development. The study did not show any statistically significant difference in the Perry levels between the two student groups. However, it did find that students who had previously traveled internationally before the study abroad trip had a significantly higher level of intellectual development that those who had not. This study is relevant to my research in that it shows that some students who have done more international travel than a semester abroad – which students in my

study have, as they are completing a four year degree abroad – are at higher levels of intellectual development. I didn't necessarily expect students in my study to score higher in Perry level than those who have not traveled abroad – in fact, I am not measuring those who have not traveled abroad – but I believe the data gathered by the McKeown research can be used as part of a recommendation for further research.

The research on development in college-age students has been primarily restricted to American students (Felder & Brent, 2004, Korn, 2004) with a gap being Saudi Arabian students studying in the US. This study attempts to fill that gap of missing information with development levels of Saudi students.

Saudi Arabian Culture

Over 100,000 Saudi students were enrolled in American colleges and universities in 2013-2014 (Taylor & Albasri, 2014), most as a direct result of the King Abdullah Scholarship Program (commonly abbreviated as SACM – Saudi Arabian Cultural Mission). This scholarship was brokered in 2005 and allows students to study at an American college or university with their government paying all of their educational expenses. In examining the culture from which these students originate, Hofstede (1984) explains that the Arab culture ranks low on an individualistic culture structure, meaning Saudi Arabian students are likely to hail from a highly collectivist culture. Other differences in culture were highlighted by Zaharna (1995). She pointed out American culture is "low-context", where meaning is stronger in the language code, and there is less meaning in context. Arab culture, in contrast, is "high-context", where the language code means less, and the context means a great deal. She also has pointed out that

American culture is very direct, while Arab culture can be described as indirect. And finally, she points to the differences between a "doing" culture and a "being" culture. American culture typically rewards activities which result in accomplishments, while Arab culture does not place as much importance on achievement and development, due to the importance of birth, family background, age and rank (1995).

Classroom culture also differs between Saudi Arabian and American classrooms. Whereas the American classroom can be said to be, more times than not, learner-centered (McCombs & Whisler, 1997), the typical Saudi classroom is teacher-centered, with the role of the teacher and text as primary and the student playing a secondary role (Elyas & Picard, 2010). This hierarchy of teacher and student stretches back in Saudi history to the "preacher-like image of the teacher" (Elyas & Picard, p. 138) of medieval Islamic times. These classroom differences were beyond the scope of my particular study, but would be a great source of further research when placed in the context of student development.

While my research does not compare Saudi Arabian students with any other group, I believe highlighting cultural differences may be helpful for understanding the context that the research participants are coming from. By examining age and developmental levels of Saudi students, I hope to provide guidance that further researchers can use that connection across multiple cultures and countries of origin.

The Gap

While much research has been conducted in the area of intellectual development, as well as cross-cultural research in the areas of educational systems and development, no such

research currently exists examining Saudi Arabian students studying at an American university and their levels of intellectual development.

Conclusion

Research on development has studied students of varied ages and backgrounds, but Saudi students studying in America have not been examined often. Saudi Arabian culture has been examined in contrast to American culture, but not along axes of development or epistemology. In the next chapter, I will explain the methods undertaken in this study.

CHAPTER THREE: METHODOLOGY

This study was designed to explore developmental levels of Saudi students at a private American university. I studied if the data gathered during administration of a developmental assessment will illuminate patterns and connections which may help to understand Saudi Arabian students' epistemological processes. My questions are:

- What are seven Saudi students' level of intellectual development?
- How if at all do their levels of intellectual development relate to GPA, rate of completion, age and years exposed to English?
- Do any patterns of responses to questions in the MER arise?
- Are there any patterns of connection among specific domains of the MER?

This chapter will explain the methods for gathering and analyzing data from this population.

I attempted to explore the possibility that academic skills, independent of English skills (speaking, listening, reading and writing), have a connection to a student's level of development as defined by William Perry. Additionally, it was my intention to examine the number of years a student has been exposed to English and how it may be related to developmental levels in undergraduate students. If a student displays high writing skills, the Durham, Hays and Martinez study showed, those skills above all others would be correlated to a higher Perry level of development.

The assessment method used in this study was the Measure of Epistemological Reflection (MER) developed by Marcia Baxter Magolda in 1983. This questionnaire

consists of 6 pages of short answer questions and can be completed in 30-60 minutes. In preparation for administering the MER, I completed the questionnaire in 22 minutes. I allowed for an additional 30 minutes in the event students struggle with responses or feel the need to add more to their answers. The questionnaire examines six specific domains of intellectual development: decision making, role of the learner, role of instructors, role of peers, learning evaluation, views of knowledge.

This research took place in the 2016-2017 academic year at a medium-sized university in Minnesota. My participants were seven undergraduate students from Saudi Arabia, varying in age from 18 to 25 years. Arabic is the primary language for all participants, and they have shown strong English proficiency (International English Language Testing System (IELTS) score of at least 5.5 or higher) in order to gain admission to the university. IELTS is scored on a 1-9 band scale, with scores of 5.5 being considered a modest user of English. Students in this band have a partial command of English and cope with overall meaning in most situations. They are able to handle basic communication in academic English.

Overview of the Chapter

This chapter describes the methodologies used in this study. First, the rationale and description of the research design is presented along with a description of the qualitative paradigm. Second the data collection protocols are presented. Next, the procedure for data collection will be discussed. Finally, the data analysis, verification of data and ethical considerations will be presented.

Qualitative Research Paradigm

A paradigm can be described as a set of basic beliefs that deals with ultimates or first principles (Guba & Lincoln, 1994). This study made use of a qualitative research paradigm. Punch (2013) describes "Qualitative research is empirical research where the data are not in the form of numbers". The paradigm uses qualitative data - "an inquiry process of understanding a social or human problem, based on building a complex, holistic picture, formed with words, reporting detailed views of informants, and conducted in a natural setting" (Creswell, 1994). In this study, I encountered a small number of participants (seven) and the observations drawn from the responses led me to more holistic views of development for each participant. The study did provide quantitative data: Perry scale was ranked 1-4, GPA on a 4.0 scale, and numbers of years exposed to English and age. However, the best way to use the questionnaire responses is by using a narrative structure to describe the results. It is my belief that the answers given by students to the prompts in the MER allow for interpretation and creation of a complex picture which cannot be interpreted in quantitative statistics alone. Qualitative research typically involves active interaction with a small sample population, as well as large numbers of variables, closer relationships between researcher and participants and somewhat uncontrolled research contexts. The data gathered in in qualitative studies is analyzed and interpreted through theme patterns and narrative synthesis, using coding and descriptive statistics including ranking, frequency and quotient (Sogunro, 2002). Additionally, as noted in a study by Eleanor Drago-Severson (2004), there is a need for in-depth qualitative studies because the learner's perspective is often only considered in

light of a program's expectations "rather than considering the perspectives of learners as they define their own experiences, their own hopes, their own needs" (p. 6).

The qualitative paradigm fits best with my research question and provides the best framework within which to interpret and analyze results. The MER is a questionnaire designed to assess a participant's level of development along a five stage model designed by William Perry Jr. (1968). Within this questionnaire there are six different domains of intellectual development which are examined: Decision-making, The Role of the Learner, The Role of the Instructor, The Role of Peers, Learning Evaluation, and View of Knowledge, Truth and Reality. On each of these domains, a score is given by the rater according to the participant's level of intellectual development in that specific domain. The rater has a very specific set of examples and explanations provided in the MER manual. The rater is tasked with determining the respondent's reasoning structure or explanation of why he/she thinks what he/she expresses (Taylor & Porterfield, 1983). The rater reads the respondent's answer, then identifies the general area of the scheme in which the reasoning structure falls, for example: Dualism, Transition, Relativism. The rater then determines which example provided in the manual most closely resembles the reasoning structures present in the respondent's answer. These six scores are then calculated to determine the most common score seen in the participant's results, and a Perry level of development is assigned to a participant. Thus, a participant has six individual scores of development in the different domain areas, and one overall score placing them on a Perry level.

Qualitative research allows for a more narrative analysis of results (Sogunro, 2002). Qualitative studies are typically done on small populations with intense and

longer term relationships between researcher and participants. Data in a qualitative study are typically analyzed through themes, patterns and narrative synthesis (Gay & Airasian, 2000). The elements of the qualitative design that I brought to this study are contained in the data analysis model. For example, participants in this study are asked which methods of instruction they find beneficial and which methods they do not. The answers to these questions are used to formulate a score on the domain of The Role of the Instructor within the MER. However, allowing for a narrative reading of the results would allow me to search for patterns among students which would not be illuminated by using their domain score alone. In essence, by using a qualitative design, I allow myself the freedom to add narrative data analysis from my relationships with the students and examine themes and patterns which may emerge from the data which is gathered. I was also looking for more descriptive information which illuminate the findings of the study. Barbara Johnstone (2000) emphasizes the importance of working with a method that is enjoyable and with which the researcher has comfort. In reflecting on my strengths as a researcher, and due to my experience as an advisor and my familiarity with students, I gravitate towards unscripted conversation and have no problem asking questions to dig into students' motivations and thoughts more directly. Because of this combination, I have chosen to make this a qualitative study.

Participants

There are seven participants in the study. They vary in age from 20-25 years old. They also vary in grade level between second and fourth year of undergraduate study. They have a range of number of years exposed to English (defined as how long they have been learning English) between 10 and 20 years. The participants have scored a

minimum of 5.0 on the IELTS test. A solicitation email was sent to 100 students from Saudi Arabia who were randomly chosen from the student directory. I am able to access student home country data in the daily responsibilities for my job as academic advisor.

Location / Setting

The study was done at a university in a large metropolitan city in the upper Midwest of the United States. The population of the city is approximately 300,000 and the University has roughly 4500 students – 1500 of these are traditional undergraduate students. The University has been hosting international students for more than 5 years.

The Measure of Epistemological Reflection

The assessment method used in this study was the Measure of Epistemological Reflection (MER) developed by Marcia Baxter Magolda in 1983. This method has been used to measure intellectual development on the Perry scheme (Baxter Magolda & Porterfield, 1985). The MER provides students with six main questions in a written short-answer format, and specific follow up questions to their answers. The rater manual then provides specific rubrics and gives raters statements students might make in response to the questions and where that would place them on the Perry scheme. The MER also looks at Perry's levels as a 4-level system, which mirrors my own study. Finally, the MER is easily distributed and requires only a 15-30 minute commitment from students. It is because of the validity and conciseness of this assessment that I chose the MER to administer to the students in this study.

I sent a solicitation letter – attached in Appendix B - (Baxter Magolda, 1983) to students in the form of an email asking them to participate in the study. Along with this

solicitation letter, I sent an informed consent form, which was returned to me either by email or by handing in the completed form to my office at the college. I then administered the MER at a time and location of the student's choosing. I used the rater manual provided by Baxter Magolda in her original dissertation to place students into the appropriate Perry level.

In preparation for this study, I completed the MER in a quiet, private location, giving ample time for full answers and attempting to read for any potential English comprehension difficulties. In total, I spent just over 20 minutes completing the MER. I allowed participants in this study a maximum of 60 minutes, being that I do not want to rush them or make them feel pressured to finish earlier sections quicker so as to complete the MER on time.

I examined the variables of age, number of years exposed to English, GPA, and rate of completion to look for connections between them and Perry stages, individually. I then reported on data gathered through the MER and examine connections, initial patterns and themes which may emerge among the participants.

Data Analysis

The study produced the following data: individual scores for each of the 6 Perry domains in the format of 1, 2, 3, 4A (Position Four – Adhering), 4O (Position Four – Oppositional) and 5. It also produced an overall Perry level for each student – identified as Total Protocol Rating – which is determined by the most common Perry position found in each of the 6 domains examined in the MER. Other data collected is age, number of

years exposed to English, GPA and rate of completion. This data was self-reported at the beginning of each participant meeting.

The MER rater manual (Taylor & Porterfield, 1983) was used to interpret participant answers to the prompts. From these numerical assignments, data will be presented with percentages, means, medians and modes.

A narrative analysis followed, with special attention paid to holistic, complex examination of individual students with the researcher using this examination to illuminate and contextualize the quantitative findings of the study. Within the context of qualitative research, narrative analysis refers to an approach to a diverse kind of responses which have in common a storied form (Riessman, 2005). Of the models of narrative analysis, I have chosen to conduct a thematic analysis. A guiding principle to thematic analysis is that language is a direct and unambiguous route to meaning. Riessman (2005) describes the thematic approach as "useful for theorizing across a number of cases – finding common thematic elements across research participants and the events they report". I believe this was the best approach for this study, given that I am attempting to examine the responses of participants and to search for similarities and patterns among them, across participants.

MER Coding

The MER coding strategy (Baxter Magolda, 1983) focuses on the respondent's reasoning structure for why he/she thinks what he/she expresses. Each of the six questions corresponds to a domain previously defined by William Perry. The five possible positions (six in total) are labeled as:

Position One: 1

Position Two: 2

Position Three: 3

Position Four (Adhering): 4-A

Position Four (Oppositional): 4-O

Position Five: 5

What follows is the qualitative process for analyzing responses and assigning scores for each question. Each of the positions is defined for each domain, and each question has a distinct rubric which the rater follows in assigning a score. Examples are given in the scoring manual for each position in each question, and raters are encouraged to identify which example most closely relates to the reasoning structure exhibited by the student. Baxter Magolda (1983) defines reasoning structure as: a) reasons for preferences chosen or ideas expressed and b) evidence/support/opinions provided for or against a preference chosen or idea expressed.

An example of scoring follows: Question #4 focuses on the role of peers in the learning process. The first question and the follow up are:

"Do you prefer classes in which the students do a lot of talking, or where students don't talk very much?"

"Why do you prefer the degree of student involvement/participation that you chose above?"

The MER Manual gives examples for each of the 5 positions, and explanations for how to score particular responses. In particular, Position Three is defined as:

"Student involvement is a bit more acceptable in Position Three since even the instructor may not know all the answers. Peer interaction is seen as legitimate as it relates to discovering the process of finding the truth such as in small group discussions".

The MER Manual goes on to provide an example answer which fits this domain of Question 4:

"Where students do a lot of talking. The advantages is that it makes the class a lot more interesting and the disadvantages is that students tend to clown around more. The more degree of student involvement, the more I usually learn. A friendly relationship where everyone is acquainted with each other."

In this study, Participant #1 answered the question thusly:

"Prefer classes in which the students do a lot of talking. Because that why let me feel more closely and let me say my opinion without doubt. Also getting to know people around you."

I, the rater, believe the participant's response closely matches the example for Position Three as provided above. As such, I assigned this participant a score of 3 for Question #4.

As each question has a score, each participant then is given a total of six scores for their questionnaire. The manual then goes on to explain how to arrive at a final score for each participant. This final score is referred to as the Total Protocol Rating. In order

to determine the TPR, the rater counts the number of instances of each position for each questionnaire. First, find the most dominant rating of the domain protocols. Then, find any other scores which occur twice in the questionnaire, and add a parentheses with that position. For example, if a student has four instances of position three and two instances of position one, the participant would be given a TPR of 3(1). This indicates Position Three is the dominant Perry level, and that Position One is second. If the ratings are evenly split between two stages, raters are instructed to list the rating separated by a dash (example: three Position Three ratings and three Position Four ratings would look like 3-4.)

The MER Manual goes on to provide an opportunity for the researcher to create a new category if the answers they encounter do not fit with the predetermined Perry stages, however I found this unnecessary. All seven of the respondents provided clear answers and were placed into Perry stages of development with relative simplicity.

Ethics

All participants were provided with a letter of consent, which was signed and dated by them. The text of this letter and signature page is included in Appendix B. Additionally, this study was subject to the Human Subjects Review approval process at both the university where the research occurred and Hamline University.

Conclusion

There are many theories of development of college-age students and research paradigms from which to choose. The best methods for this study were to use a questionnaire developed by a leader in the field of epistemological development – Marcia

Baxter Magolda – and a qualitative research paradigm. By deploying these methods, I was able to extract a rich data sample from the participants in the study, which will be discussed in the next chapter.

CHAPTER FOUR: RESULTS

This study was designed to explore developmental levels of Saudi students at an American university. I studied if the data gathered during administration of a developmental assessment will illuminate patterns and connections which may help to understand Saudi Arabian students' epistemological processes. My questions are:

- What are seven Saudi students' level of intellectual development?
- How if at all do their levels of intellectual development relate to GPA, rate of completion, age and years exposed to English?
- Do any patterns of responses to questions in the MER arise?
- Are there any patterns of connection among specific domains of the MER?

This chapter will explain the results of the study and present the data which was collected.

Overview of the Chapter

This chapter presents the data gathered by the researcher in administering the MER, and will discuss connections and patterns between this data and students' GPA, rate of completion, age and number of years exposed to English. It contains a qualitative, narrative explanation for the results of the study. Finally, this chapter identifies connections to the literature review.

Research Question #1 - What are seven Saudi students' level of intellectual development?

The following table shows the seven participants' Perry (1999) scores:

Table 1

Participants' Perry-level Scores

Participant	Perry-level Score
1	3(1)
2	3(4)
3	3(4)
4	3
5	2(3)
6	2-3
7	4(3)

In total, four participants had Position 3 as their dominant position, with two having Position 2, and one with Position 4. A brief overview of these positions, according to both Perry (1999) and Baxter Magolda (1985), follows:

Position 2 – The second position of two which are commonly referred to as Dualism. In this position, the world view is absolute, characterized by either/or, right/wrong categories. Authority figures are believed to know the truth, and have a strong influence on the decision making process (Baxter Magolda, 1983).

Position 3 – The third position is the first of two which are commonly referred to as Transition. Authority figures maintain a great deal of influence, but learners have discovered that some truth is not known at the present time. Learners begin transitioning to a process by which they discover the unknown, and the instructor's role alters from giving answers to helping students learn to find them. The learner is open to other

methods of teaching rather than strict lecture, but view class participation as having little significance to learning. Learners in this phase still believe there are certain processes of learning which are right and wrong, and it's a matter of following those to find the truth (Baxter Magolda, 1983).

Position 4 – The fourth position is the last position before Relativism, or the understanding that truth is contextual (Perry, 1999). Because this is the final stage of Transition, learners shift their evaluation away from knowing material because they now recognize that knowledge is uncertain. Authority figures now simply facilitate learning, and learners view peers as legitimate sources of knowledge. They view everyone's opinion as equally valid and prefer high student involvement. Exploring ideas and exchanging information is now viewed as important, with both instructors and peers trusted to provide answers to group questions (Baxter Magolda, 1983).

Further, in Position 4, there are commonly two sub-positions – Adhering and Oppositional. These essentially focus on the affect and behavior of students in this final stage of Transition before Relativism. Students said to be in Position 4 – Adhering accept new methods of learning and are relatively open to the idea that their instructors are no longer the sources of authority for information. Students said to be in Position 4 – Oppositional are actively opposing authority figures to test them and often challenge sources of knowledge to probe for inconsistencies. The instructor is perceived as having no more knowledge than the students and oppositional students rebel against the instructor and what they perceive as the game of learning (Baxter Magolda, 1983). In this study, as I have only one student who was placed into Position 4, and further, the

student did not indicate any challenges or rebellion against authority, I have categorized that student as Position 4 – Adhering.

Research Question #2: How if at all do their levels of intellectual development relate to GPA, rate of completion, age and years exposed to English?

This study produced data that Perry levels of students and GPA, rate of completion and age were not strongly connected. In fact, the data's connections were negative on three different levels of comparison – Perry Level to Age, GPA and Rate of Completion. This means that as the Perry level rose, the Age, GPA and Rate of Completion of the participants actually went down.

Seven students completed the questionnaire and displayed an average Perry level of 2.9. The average age of participant was 26 years old. The average number of years studying English was 1.9, the GPA average was 3.28, and the average rate of completion for participants was 94%.

The following table shows the students' Perry level of intellectual development along with GPA, rate of completion, age and years exposed to English:

Table 2

Developmental Levels and Demographic Data of Respondents

Student	Perry Level	Age	# Years Studying English	GPA	Rate of Completion
1	3	29	1	3.41	96.1
2	3	23	4	3.65	100
3	3	22	1.5	2.97	89.1
4	3	24	1.5	2.89	86
5	2	31	2	3.59	100
6	2,3	31	1	3.61	96.9
7	4	24	2	2.81	92.4

Research Question #3: Do any patterns of responses to questions in the MER arise?

The Measure of Epistemological Reflection provided a wealth of data on particular students and the grading was in itself a worthwhile and educational process. The first pattern of responses came in Question Four – The Role of Peers. The first question in this domain is "Do you prefer classes in which the students do a lot of talking, or where students don't talk very much?" The answers of five of the seven respondents were some variation of preferring students doing a lot of talking, while the other two respondents gave a conditional answer, such as, *"Depends on the class, for example, if it's public speaking I prefer talking, if it's economy I prefer listening".* This majority of respondents answering that they prefer students talking a lot in class is a pattern consistent with a relativistic level of development. A dualistic way of answering this question would likely center around a student reporting that the professor should do most

of the talking and that student input should be kept to a minimum. And indeed, classroom expectations differ across cultures with regards to teacher vs. learner-centered classroom environments (Dunphy, 1999). However the majority of students reporting that they prefer classes where students talk a lot would seem to indicate that either students have a higher level of development in this domain, or their cultural background of a teacher-centered classroom environment is not still influencing their opinion on the role of peers in the classroom.

Another pattern that emerged from the questionnaire responses was the way that students described the role that English learning plays in their educational experience. Answers to a variety of questions contained different views on English which would not have been present in the answers of native English speakers. An example from Question Three, regarding the roles of the instructor:

Q: Were there aspects of that teaching method which were not beneficial? If so, please talk about some of the aspects and why they were not beneficial.

A: I had a teacher who just talk and read of the slides. For me because I am not a fast writer I could not take note, because she read fast. Also I can't focus in writing, listing and looking at the slides at the same time.

Similarly, a different participant answered this in Question Four, regarding the roles of peers:

Q: Why do you prefer the degree of student involvement/participation that you chose above?

A: One does not come to learn only listening, but speaking, reading, writing and understanding.

Q: What do you see as the advantages of your preference above?

A: Speaking English fluently, not quickly but fluently.

These answers, among others, call to attention the importance of English learning which students perceive in their academic journey. Because there was no domestic group in this study, I was unable to compare Saudi students' levels of development to any other group, but my original idea for this study was that being a bilingual international student in the US could result in higher levels of development. This observation – that students are weighing English learning along with other classroom outcomes and mechanisms (role of peers, instructors' teaching styles, assessment and truth) would seem to corroborate at least part of that sentiment. Patricia Bizzell (1984) says of relativism, "For the Relativist, knowing the world means devising an individual strategy for survival. For the student Relativist, education is a process of devising persuasive answers, since right answers no longer exist." (p448) Students in this study seemed to be generally viewing some of their answers not only through the lens of what they prefer to learn in the class, but also the context of what will make them a stronger English speaker.

Finally, three respondents made notes of cultural differences and differences of beliefs in question four dealing with the role of peers in the classroom. One of the responses was:

Q: Why do you prefer the degree of student involvement/participation that you chose above?

A: Because personally I do not talk a lot, I like to listen more.

Q: What do you see as the advantages of your preference above?

A: The advantage of my preference is because I have a different culture. For example, if there is a discussion in my class about sex, I would be just listening.

Other answers involved students pointing out differences in cultures and beliefs and mostly highlighted the need to be respectfully aware of these differences. While this concept might not be tied directly to development, I believe it does display an awareness on the part of the students that discussion is valued in every class, despite cultural differences.

Research Question #4: Are there any patterns of connection among specific domains of the MER?

The highest average domain was a 3-way tie between Question One (Decisions), Question Three (Role of the Instructor) and Question Four (Role of Peers). In each of these domains, the average was a score of 3, which is the first level of Transition. The lowest average score was in the domain of Question Five (Evaluation). This was over, on average, a half of a level below the highest-rated domains. In fact, two separate scores of 1 were applied in this domain, which is unique in the study. As such, students scored highest in the areas of Decisions, Role of the Instructor and Role of Peers, and lowest in Evaluation.

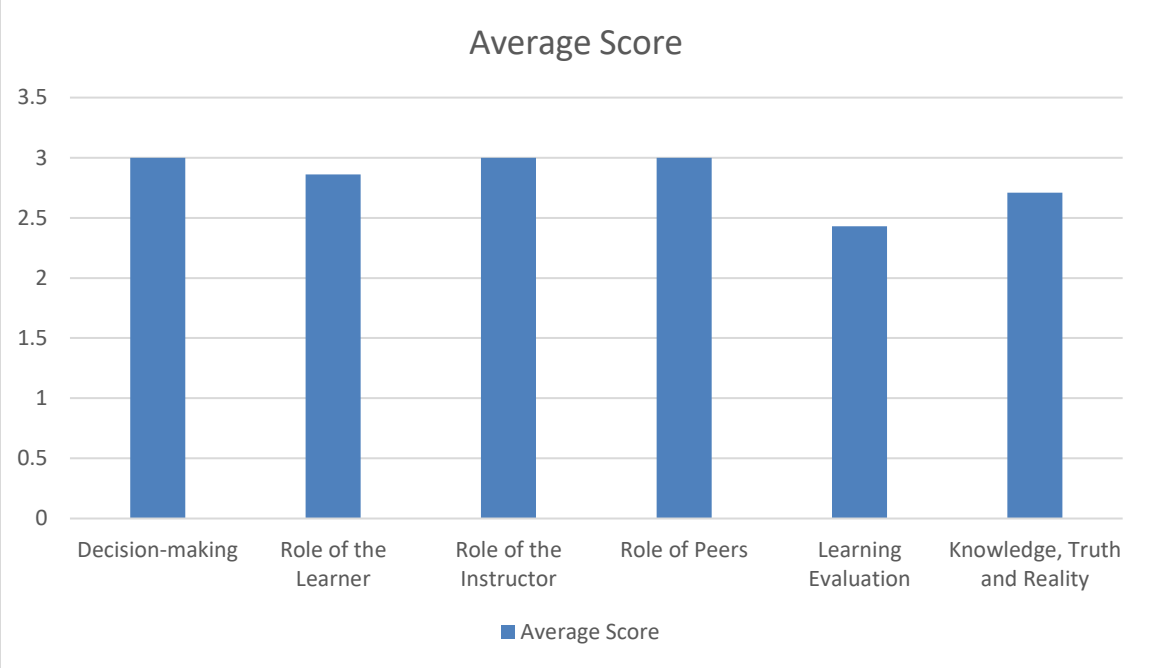
The table below shows all the individual answer scores, as well as an average for each domain:

Table 3

Participants' MER Question Results

Participant	Question 1 Decision-making	Question 2 Role of the Learner	Question 3 Role of the Instructor	Question 4 Role of Peers	Question 5 Learning Evaluation	Question 6 View of Knowledge, Truth and Reality
1	3	1	3	3	3	1
2	2	3	3	4	3	4
3	3	4	4	3	2	3
4	3	5	4	3	1	3
5	3	2	2	3	1	2
6	3	3	2	2	3	2
7	4	2	3	3	4	4

Figure 1. Average scores of domains. This figure illustrates the average score on each of the six domains explored in the Measure of Epistemological Reflection.



I believe that Question Five – Learning Evaluation – strikes to a very important distinction between US and global classroom culture. It has been found that international students are often educated in systems which are predominantly teacher-centered (Smithee, et al, 2004). In this environment, the instructor necessarily acts as the ultimate arbiter of the students' grades and is the sole voice in determining how much the student has learned and how the student should be assessed. Because of this, students often see the instructor as an authority, which the MER attributes to dualistic thinking.

An example may provide better context. Student Five, who ultimately showed a Perry level of 3, and for whom the only domain level which was rated lower than three was the Evaluation question (which was a one) said this:

Q: Ideally, what do you think should be used as a basis for evaluating your work in college courses, and who should be involved in the evaluation?

A: The instructor should be the basis for evaluating my work in college courses. I do not think there should be anyone involved in the evaluation.

This answer, and others like it, lead me to believe that students in this study definitely hold the instructor as an authority, and display dualistic thinking when it comes to learning evaluation. However, this is one domain that I would hold up to others as a culturally biased concept. I believe students can show higher development in other areas which would (and in fact, the findings of this study bear this out) raise their overall Perry level, despite low scores in the domain of Evaluation. The hallmark of Relativistic thinking is that Learners critically reflect on multiple perspectives and determine the most suitable answer in a particular situation (Love & Guthrie, 1999). The role of the

instructor in making student evaluations and how the students perceive that is simply one small part of an overall student reflection, and it did not serve, in the case of this study, to bring down any individual student scores.

The following chapter will contain the conclusions derived from the study and discuss possible implications for the study, limitations and recommend future research based on the findings.

CHAPTER FIVE: CONCLUSIONS

This study was designed to explore developmental levels of Saudi students at an American university. I studied if the data gathered during administration of a developmental assessment will illuminate patterns and connections which may help to understand Saudi Arabian students' epistemological processes. My questions were:

- What are seven Saudi students' level of intellectual development?
- How if at all do their levels of intellectual development relate to GPA, rate of completion, age and years exposed to English?
- Do any patterns of responses to questions in the MER arise?
- Are there any patterns of connection among specific domains of the MER?

This chapter will explain the conclusions of the study, consider possible implications and limitations of the study, and present recommendations for future research in the area of intellectual development of international students.

Major Findings

The study did not find a positive connection between Perry level of development and any of the variables outlined. In fact, a negative connection was found between Perry level and three of the four independent variables. As stated in the previous chapter, this may be due to the low sample size of students – for example, the highest Perry level was achieved by one of the youngest students, and the lowest Perry level belonged to the oldest student. If this study had examined 70 students instead of seven, the results may have seen more distribution on a scatter plot. Similarly, as has been previously discussed, the question of how many years each student had been exposed to English was

self-reported, and I don't believe the question was phrased properly in the questionnaire. Students gave, I believe, the answer to how long they had formally taken English classes in the US, not necessarily how long they had been exposed to English in their lifetime. Because of these reasons, a positive connection was not found.

This study was not without its important findings. First, the degree to which higher GPA was negatively connected with Perry level, particularly among the lowest two Perry level scoring students. Participants Five and Six had, respectively, Perry levels of 2 and 2.5, which would place them both in a Dualistic position (2.5 would have the student just beginning to pull away from Dualism towards transition). The reasons for the lower Perry level among these students are revealed by the data: Questions Three and Six have them scoring at Perry level two, and their classmates averaging 3 and 2.71, respectively. These two domains – Three and Six – deal with the Role of the Instructors and the View of Knowledge, Truth or Reality. The two students displayed two of the top GPAs in the study, so for these two students, their view of instructors and their overall view on truth did not hinder their academic success. This finding - that higher GPA negatively connected strongly with Perry level at high GPA scores - is a suggestion for further research.

Another finding of importance was in the area of age and its connection to GPA. Though the study primarily focused on Perry levels, I found it interesting that as GPA rose, so too did age. This would seem to indicate a connection between age and GPA. Though this data is not compared with domestic students or any other control group, I believe this may be a unique finding to this group of international students. The two oldest students displayed two of the highest GPAs in the study, and the youngest was the

second lowest in GPA. Though this does not examine English skill, Perry level or any other variable studied, it does reflect positively on the idea of life experience as a component of academic success in an American classroom. There contains later in this chapter a suggestion for further research in this area.

Revisiting the Literature Review

As the literature shows, English skills – specifically academic writing skills – correlate positively to Perry levels (Durham, Hays and Martinez, 1994). It also has concurred with previous research that development as a concept, specifically the subject-object relationship and its meaning in a student's development, can be applied across cultures (Villegas-Reimers, 1996). Finally, research has shown that students who travel internationally score higher in areas of development than those who do not (McKeown, 2009). The researcher in that study theorized that during study abroad trips, students experience "stress, diversity, ambiguity and unfamiliarity" (p. 20), all of which facilitate intellectual developmental growth. These are important concepts to this study and to the area of development research of international students. Because this specific study did not find higher Perry levels among a small group of students grouped together by country of origin does not disprove or disagree with other research that has come before.

Possible Implications of the Study

As with many findings, the true effect of this study may lie in its guidance to future researchers and stakeholders in the area of international education.

The first implication that was found in this study is the need for further examination in the area of Domain Five – Evaluation. This domain was lower among the

participants of this study. This warrants further examination and possible research. A follow up study might delve deeper into the area of Evaluation, and could include questions from faculty as well as researchers to discover how students view instructor evaluation and assessment and how this might impact their specific grades and performance in classes. A targeted study confined to one course might involve a survey at the beginning of the semester asking questions which prompt answers similar to Question Five in the MER. The students would then complete the course as normal, after which they would complete a similar survey to see if their answers have changed. These results could then be compared with course data to determine if this issue is unique to one group of students, and if any connections exist. The study would ideally examine the experiences of both international and domestic students.

Another suggestion for further research lies in the area of GPA and its connection to Perry levels. I would be curious, as a researcher, to examine a larger group of students, with more diversity included in the sample. I'm curious as to how GPA relates to Perry levels of development, and it would benefit any future studies to be able to view this connection with a robust set of data points. From all of the research cited in this study, GPA levels would rise among those with higher Perry levels, but I'd suggest to any further researcher to start with a very broad sample and split demographic data after the study has been completed.

A final suggestion for further research involves the connection between two independent variables in this study – Age to GPA. Though this study focused primarily on Perry levels and their relationship to independent variables, the participants' ages and GPAs were connected in that the higher the age of the participant, in general, the higher

the GPA. An idea for further research in this area would be a broad study including both domestic and international students at residential colleges which examines – ideally – years of GPA and age data to look for connections. The researcher could then report on the differing levels of connection between domestic and international students. The question would be: is the connection between older students and higher GPA stronger in domestic or international students? Based on this study, it would be easy to imagine the connection being stronger for international students, which would have ramifications for all staff and faculty who serve such students at colleges and universities in the US.

Finally, as an Academic Advisor, I found great value in learning of students' ambitions and preferences with regards to their education. Knowing their development levels and how they view roles of instructors and peers in their education has provided me with a deeper and more enriched understanding of the way they view their educational journey. Overall, the levels of development of the students in this study in an American college context are fascinating. I entered into this study with a mindset that students' previous experiences in their home country combined with cultural differences in education systems around the world would resonate through their answers to questions and ultimately their developmental levels. Instead, as I am constantly reminded in my working with this population, international students share a large majority of concerns, dreams, learning preferences and epistemological positions towards education with their domestic companions. Where I tended towards looking for differences, mostly I was reminded of similarities. The roles of students in their own educational success as well as their pursuit of the truth in all academic contexts was uplifting and informs my work as an advisor to push them to continue trusting their own understandings of truth and

knowledge and continue to use resources to the extent that they assist them in their developmental growth.

Limitations of the Study

Though this study kept in focus the variable at its center – that of Perry level of development - this study was limited in scope due to low participation rate and question phrasing.

The study ended in April 2017 with seven participants having completed the questionnaire. Though efforts were made to reach out to the more than 100 students on campus who could potentially be included in the study, a small number responded. Multiple solicitation emails were sent, as well as word of mouth suggestions in two different offices on campus. No prizes or financial incentives were offered, and the deadline for questionnaires was set in mid-April, as I did not want infringe on students' studying for their finals. Though the questionnaire required roughly 15-30 minutes to complete, I do believe it was asking a great deal of students to take time out of their busy schedules to provide detailed answers to all of the questions. A suggestion in the future for a study involving a lengthy questionnaire is to either trim the length of the questionnaire or to organize an event where students could all complete the questionnaire at the same time. This would provide the opportunity to offer some sort of reward or enticement to students completing the questionnaire.

One of the variables intended to be studied was that of Number of Years Exposed to English. I was interested in differences between students who had studied English for many years versus those who had just begun learning English recently. Our international

population is not homogenous – we have students with a wide range of English-speaking background and ability. My thought was that the longer a student had been bilingual, the higher the Perry level in that student. However, the phrasing of the question left this research question nearly unanswerable. As stated in the questionnaire, it asked "How many years have you studied English?" The word "studied" caused nearly every student to respond to the question of "How many years have you taken an English course in the United States?" This is not a question that is relevant to the research question which I was attempting to ask. In future studies, it would be helpful to clarify this question to non-native speakers of English.

Value of the Study

This study aimed to evaluate students' levels of development and examine them for connections in academic performance. Additionally, the study aimed to study links between demographic age and English exposure to development levels. In administering the questionnaire, as well as explaining the purposes for the study and my own interest in the areas of development, I found immense personal and professional growth.

My first experience in explaining this study was done in the summer of 2016, to colleagues at a staff retreat. Each staff member was tasked with a presentation on an area in which they found interest and which had relevance to our students. I was just beginning planning my study at that time, but found it incredibly helpful to explain, in everyday language, the different theories on intellectual development, the history of the study of development, and the various positions and how they are manifested within college students. This presentation and those that followed helped hone my

understanding of the topic, as well as my ability to make it easy to understand to those without previous study in the field.

Interacting with students to explain and solicit responses on the questionnaire also provided me with valuable conversations and professional development. Beginning in January, I was having weekly and sometimes daily conversations with students explaining the scope of the study, the questions being asked and how they related to international student services. This both strengthened my connection to students and often opened conversations which led into other matters of importance in their lives beyond college. These conversations and the relationship-building that followed are the cornerstone of a positive advisor-student relationship, and for that, I am thankful for the opportunity to conduct this research.

Implication of Development Research on Academic Advising

This study, along with others which similarly examine development in the context of academic performance, can have implications which are both theoretical and practical.

Academic advising has been found to be a major area which promotes students satisfaction and retention across many institutions of higher education (Beal & Noel, 1980). Given current efforts towards improving retention and satisfactory academic progress which are promoted by both universities and the U.S. Department of Education, academic advisors are in a unique position to affect student outcomes notice trends and patterns among the students whom they advise. When sharing the results of this research with colleagues, an important piece of feedback I received was that while defining and examining students' levels of development was important and interesting, a similarly

important factor to study might be the relationship which develops between student and advisor, regardless of development level. As advisors, we often take for granted our relationships with students or minimize them into simply part of our working life (a fun and rewarding part, to be certain). However, it would be interesting to examine student success with relation to how strong and intentional the relationships are between student and advisor, and possibly even set that in the context of student development. This information was hinted at in this study, but was not fully examined.

In a similar vein, colleagues were pleased with the number of respondents and the depth of their responses to admittedly personal questions on the questionnaire. While I had hoped for at least 20 respondents to create a vast database of student developmental data points, my colleagues were impressed that I had such strong connections to students to have seven of them respond to me with no immediate benefit to them or compensation for their time. I believe this speaks to a strong relationship, yes, but also to students willing to support academic pursuits of friends, coworkers, classmates and members of their community. Though not defined on Perry or others' spectrums of development, the value placed on educational pursuits by those outside one's immediate circle of friends and family, may, I believe, be connected to a greater and deeper connection to academic success.

Reference List and Bibliography

Bateman, D., & Donald, J. G. (1987). Measuring the intellectual development of college students: Testing a theoretical framework. *Canadian Journal of Higher Education*, *17*(1), 27-45.

Baxter Magolda, M. (1983). *The development of the measure of epistemological reflection* (Doctoral dissertation). Retrieved from The Ohio State University. (8318441)

Baxter Magolda, M., & Porterfield, W. D. (1985). A new approach to assess intellectual development on the Perry scheme. *Journal of College Student Personnel*, *26*(4), 343-351.

Baxter Magolda, M. (1987). Comparing open-ended interviews and standardized measures of intellectual development. *Journal of College Student Personnel*, *28*(5), 443-448.

Baxter Magolda, M, & Porterfield, WD (1988). *Assessing intellectual development: The link between theory and practice*. Alexandria, VA: American College Personnel Association.

Baxter Magolda, M. B. B., & King, P. M. (2004). *Learning partnerships: Theory and models of practice to educate for self-authorship*. Sterling, Virginia: Stylus Publishing, LLC..

Beal, P. E., & Noel, L. (1980). *What Works in Student Retention:* The Report of a Joint Project of the American College Testing Program, Iowa City, IA, and the National Center for Higher Education Management Systems, Boulder, CO.

Bizzell, P. (1984). William Perry and liberal education. *College English*, *46*(5), 447-454.

Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational researcher*, *18*(1), 32-42.

Buerk, D. D. (1982). Changing the conception of mathematical knowledge in intellectually able, math avoidant women. *Roeper Review*, *4*(4), 50.

Calhoun, John C. (1996) "The student learning imperative: Implications for student affairs." *Journal of College Student Development 37*(2), 118-122.

Clinchy, B., Lief, J., & Young, P. (1977). Epistemological and moral development in girls from a traditional and a progressive high school. *Journal of Educational Psychology*, *69*(4), 337.

Copes, L. (1974). Teaching models for college mathematics. *Dissertation Abstracts International, 36*, 6501A.

Creswell, J. W. (1994). *Research design: Qualitative and quantitative approaches.* Thousand Oaks, CA: Sage.

Drago-Severson, E. (2004). *Becoming Adult Learners: Principles and practices for effective development*. New York, NY: Teachers College Press.

Dunphy, J. (1999). *Teaching in the multicultural classroom.* NAFSA Newsletter 50(3), 1-8.

Durham, R. L., Hays, J., & Martinez, R. (1994). Socio-cognitive development among Chicano and Anglo American college students. *Journal of College Student Development, 35*(3), 178-182.

Elyas, T., & Picard, M. (2010). Saudi Arabian educational history: Impacts on English language teaching. *Education, Business and Society: Contemporary Middle Eastern Issues*, *3*(2), 136-145.

Erwin, T. D., & DeMars, C. (2003). Revising the scale of intellectual development: application of an unfolding model. *Journal of College Student Development*, *44*(2), 168-184.

Felder, R. M., & Brent, R. (2004). The intellectual development of science and engineering students. Part 1: Models and challenges. *Journal of Engineering Education*, *93*(4), 269-277.

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. *Handbook of qualitative research*, *2*(163-194), 105.

Haisty, D.B. (1984). The developmental theories of Jean Piaget and William Perry: An application to the teaching of writing. *Dissertation Abstracts International, 44:8, 2393A.* (University Microfilms No. DA 8327851)

Hays, J. N., Brandt, K. M., & Chantry, K. H. (1988). The Impact of Friendly and Hostile Audiences on the Argumentative Writing of High School and College Students. *Research in the Teaching of English*, *22*(4), 391-416.

Hofstede, G. (1984). The cultural relativity of the quality of life concept. *Academy of Management review*, *9*(3), 389-398.

Johnstone, B. (2000). *Qualitative methods in Sociolinguistics.* New York, NY: Oxford University Press, Inc.

Kegan, R. (1982). *The Evolving Self – Problem and Process in Human Development*. Cambridge, MA: Harvard University Press.

Kegan, R. (1991). Developmental approaches to professional development. In *conference of the Clinical Developmental Institute, Cambridge, MA.*

Kegan, R. (1994). *In Over Our Heads: The mental demands of modern life*. Cambridge, MA: Harvard University Press.

Kegan, R., Broderick, M., Drago-Severson, E., Helsing, D., Popp, N., & Portnow, K. (2001). *Toward a New Pluralism in ABE/ESOL Classrooms: Teaching to Multiple Cultures of Mind*. National Center for the Study of Adult Learning and Literacy, Harvard University Graduate School of Education, http://ncsall.gse.harvard.edu/research/brief19.pdf

King, P. M., Kitchener, K. S., Davison, M. L., Parker, C. A., & Wood, P. K. (1983). The justification of beliefs in young adults: A longitudinal study. *Human development*, *26*(2), 106-116.

Knefelkamp, L. L. (1974). Developmental instruction: Fostering intellectual and personal growth of college students. *Dissertation Abstracts International*, 36, 1271A. (University Microfilms No. 75-21, 059)

Kovacs, D. (1977). Development of cognitive, coping and relational abilities through the study of participation in the university. Paper presented at *Third International Conference on Improving University Teaching*, Newcastle-on-Tyne, England.

Korn, M. E. (2004). *Promoting epistemological development in first-year college students through intersubjectivity, scaffolding, and practice*. (Doctoral dissertation). Retrieved from the University of Arizona., 3131611.

Lahey, L., Souvaine, E., Kegan, R., Goodman, R., & Felix, S. (1988). *A guide to the subject-object interview: Its administration and interpretation.* Cambridge, MA: Harvard University, Graduate School of Education, Laboratory of Human Development, Minds at Work.

Lindsley, R. B. (2011). *Constructive Developmental Theory and Programming across Cultures: An Examination of the Development and Experiences of Adult Burmese Participants in a High Quality Adaptive Capacity Development Program* (Doctoral dissertation). Retrieved from ProQuest LLC. (3459743)

Love, P. G., & Guthrie, V. L. (1999). *Understanding and Applying Cognitive Development Theory: New Directions for Student Services, Number 88* (Vol. 27). San Francisco, CA: Jossey-Bass Publishers

Mahoney, Michael J. (1991). *Human change processes: The scientific foundations of psychotherapy*. New York, NY: Basic Books.

McAuliffe, G. J., & Strand, R. F. (1994). Advising from a constructive developmental perspective. *NACADA Journal*, *14*(1), 25-31.

McCombs, B. L., & Whisler, J. S. (1997). *The Learner-Centered Classroom and School: Strategies for Increasing Student Motivation and Achievement. The Jossey-Bass Education Series*. San Francisco, CA: Jossey-Bass Inc.

McKeown, J. S. (2009). *The First Time Effect: The impact of study abroad on college student intellectual development.* Albany, NY: SUNY Press.

Perry, W.G. (1968). *Patterns of Development in Thought and Values of Students in a Liberal Arts College: A Validation of a Scheme.* Cambridge, MA: Bureau of Study: Counsel, Harvard University (ERIC Document Reproduction Service No. ED 024315)

Perry, W.G. (1999). *Forms of ethical and intellectual development in the college years: A scheme.* San Francisco, CA: Jossey-Bass, Inc.

Piaget, J. (1952). *The origins of intelligence in children*. New York, NY: International Universities Press.

Piaget, J. (1955). *The child's construction of reality*. London, UK: Routledge & Kegan Paul Limited.

Punch, K. F. (2013). *Introduction to social research: Quantitative and qualitative approaches*. Thousand Oaks, CA: Sage.

Riessman, C. K. (2005). *Narrative, Memory & Everyday Life.* Huddersfield, UK: University of Hudderfield

Smithee, M. B., Greenblatt, S. L., & Eland, E. (2004). *US classroom culture.* Washington, DC: NAFSA, Association of International Educators

Sogunro, O. A. (2002). Selecting a quantitative or qualitative research methodology: An experience. *Educational Research Quarterly*, *26*(1), 3.

Taylor, C., & Albasri, W. (2014). The Impact of Saudi Arabia King Abdullah's Scholarship Program in the US. *Open Journal of Social Sciences*, *2*(10), 109.

Villegas-Reimers, E. (1996). Self Development of Venezuelan Adolescents A Test of Kegan's Theory and Subject-Object Interview in Another Culture. *Journal of Cross-Cultural Psychology*, *27*(1), 25-36.

Vygotsky, L. (1978). Interaction between learning and development. *Readings on the development of children*, *23*(3), 34-41.

Zaharna, R. S. (1995). Understanding cultural preferences of Arab communication patterns. *Public Relations Review*, *21*(3), 241-255.

Appendix A

Measure of Epistemological Reflection

Instructions: The questionnaire that follows has to do with your perspective on a number of concerns related to college students. Each of the questions on the following pages asks for your opinion or choice on a given subject, and the reasons why you have that particular perspective or opinion. We are interested in understanding your perspective as fully as possible. Please give as much detail as you can to describe how you feel about each question. Feel free to use the backs of pages if you need more space. Thank you.

Name _____

Year in college _____

How many years have you studied English? _____

Think about the last time you had to make a major and difficult decision in which you had a number of alternatives (e.g. Which college to attend, college major, career choice, etc.) What was the nature of the decision?

What alternatives were available to you?

How did you feel about these alternatives?

How did you go about choosing from the alternatives?

What things were the most important considerations in your choice? Please give details.

Do you learn best in classes which focus on factual information or classes which focus on ideas and concepts?

Why do you learn best in the type of class you chose above?

What do you see as the advantages of the choice you made above?

What do you see as the disadvantages of the choice you made above?

If you could give advice to anyone on how best to succeed in college coursework, what kind of advice would you give them? Talk about what you believe is the key to doing well in college courses.

During the course of your studies, you have probably had instructors with different teaching methods. As you think back to instructors you have had, describe the method of instruction which had the most beneficial effect on students.

_____

_____

_____

_____

What made that teaching method beneficial? Please be specific and use examples.

_____

_____

_____

_____

Were there aspects of that teaching method which were not beneficial? If so, please talk about some of the aspects and why they were not beneficial.

_____

_____

_____

_____

What are the most important things you learned from the instructor's method of teaching?

_____

_____

_____

_____

Please describe the type of relationship with an instructor that would help you to learn best and explain why.

_____

_____

_____

_____

Do you prefer classes in which the students do a lot of talking, or where students don't talk very much?

Why do you prefer the degree of student involvement/participation that you chose above?

What do you see as the advantages of your preference above?

What do you see as the disadvantages of your preference?

What type of interactions would you like to see among members of a class in order to enhance your own learning?

Some people think that hard work and effort will result in high grades in school. Others think that hard work and effort are not a basis for high grades. Which of these statements is most like your own opinion?

Ideally, what do you think should be used as a basis for evaluating your work in college courses, and who should be involved in the evaluation?

Please explain why you think the response you suggested above is the best way for evaluating students' work in college courses?

Sometimes different instructors give different explanations for historical events or scientific phenomena. When two instructors explain the same thing differently, can one be more correct than the other?

When two explanations are given for the same situation, how would you go about deciding which explanation to believe? Please give details and examples.

Can one ever be sure of which explanation to believe? If so, how?

If one can't be sure of which explanation to believe, why not?

Appendix B

Solicitation Letters

This letter is to ask you to participate in a research study this semester. I am a graduate student pursuing a Master of Arts in English as a Second Language, conducting graduate research on intellectual reasoning. In order to complete my research I need a number of students to complete a questionnaire about learning, classroom instruction and academic decision-making. The time involved will be approximately 15-30 minutes.

The purpose of my research is to better understand how students think about learning and college coursework. If the research is successful, instructors and staff could use the information gathered to gain understanding about what their students need in the learning process and increase student satisfaction with college coursework. A summary explanation of my study is included on the attached page.

Your name was chosen from the Student Directory. I would sincerely appreciate your willingness to participate. Unfortunately, I am unable to pay students who assist. I will, however, meet with any participants who wish to know how their questionnaires are interpreted and provide any other additional information about the study.

All information collected on the questionnaires will be entirely confidential. Should you have questions about participating please contact me at 651-641-8708 or by email at boatman@csp.edu. You can also contact my faculty advisor, Jennifer Ouellette-Schramm at jouellette01@hamline.edu. Please reply to this email if you are able to participate. Thank you in advance for your anticipated cooperation!

Sincerely,

Drew Boatman

boatman@csp.edu

651-641-8708

The information below is intended to answer potential questions you may have about the study in which you are being asked to participate.

Why study intellectual reasoning?

In 1970, William G. Perry studied and described students' perceptions of their experience with college. Perry indicated that different students viewed learning, knowledge and instruction differently. However, most of the research since Perry's study has focused on domestic college students. I am interested in the intellectual reasoning of international students. Through this research, I hope to provide staff and faculty with a better understanding of how international students view learning, knowledge and instruction.

What does the study involve?

In order to study students' views of learning and knowledge, a group of students will be asked to complete a questionnaire which consists of six pages of short-answer questions. None of the questions are personal in nature. The time involved to complete the questionnaire would be approximately one hour.

How were participants chosen?

A random group of persons were selected from the Student Directory. It is important to obtain a random group of persons for a research study so that characteristics of persons selected represent international students in general.

What will happen to the questionnaires?

Each questionnaire will be given a number. The name of the respondent will not be used. The researcher will maintain a list of participants and their number in order to summarize biographical data such as age and sex, but no one else will be permitted to know who filled out the questionnaires. All information from the questionnaires will be reported anonymously.

Why should I participate?

By participating you will have an opportunity to learn more about how you reason and think. By giving your time to help with this study you may also help create a means by which instructional methods can be developed to meet students' needs more effectively.

Second Solicitation Letter

Thank you for your willingness to participate in my research! Enclosed you will find the consent form, the questionnaires, a page requesting demographic information, and an envelope in which to return the materials. Please keep your copy of the consent form.

The questionnaire asks for your perspective on a variety of topics. It is important that you express your own views and the reasons that make up your perspective. If possible, try to complete the questionnaire in one sitting.