THE IMPACT OF IMMIGRANT LIFE EXPERIENCES ON COLLEGIATE CRITICAL THINKING SKILLS: A MIXED METHODS CASE STUDY

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To Dr. Daniel Estes and Dr. David Mills, who showed me the potential of higher education to change lives by changing minds
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CHAPTER ONE: INTRODUCTION

Significance of Critical Thinking in College

A growing body of research supports the idea that personal epistemology, one’s set of beliefs about knowledge and knowing, is foundational to the development of critical thinking skills and to success not only in college, but also in interpersonal and professional relationships (Hofer, 2005; King & Kitchener, 2004; Baxter Magolda, 2004; Kegan, 1994). More advanced epistemological stages have been shown to correlate positively with academic achievement (Pizzolato, 2006; King & Kitchener, 2004; Kegan, 1994), acceptance of diversity (Baxter Magolda, 2004; King & Kitchener, 2004; Guthrie, King, & Palmer, 2000), problem-solving (Baxter Magolda, 2007; King & Kitchener, 2004), and persistence in college (Pizzolato, 2006), all key priorities of instructors and administrators in higher education (American Association of Colleges and Universities, 2002; American College Personnel Association, 1994; American Association of Higher Education, 1998).

Broadly defined, critical thinking refers to the ability to suspend judgment on an issue while analyzing multiple perspectives (Dewey, 1933; King and Kitchener, 2004; Baxter Magolda, 2004; Kegan, 1994) and reasoning abstractly (Dewey, 1933; Kitchener & Fischer, 1990; Kegan, 1994; King & Kitchener, 2004) in order to draw personal conclusions about ill-structured problems whose answers provoke disagreement among experts and thus cannot be known completely or with certainty (Perry, 1970; Baxter
Magolda, 2004; King and Kitchener, 2004; Kegan, 1994). According to John Dewey, critical thinking begins when a person acknowledges the limitations of “formal logic” in the face of an ill-structured problem and moves on to “careful consideration of one’s beliefs in light of supporting evidence” (1933; as cited in King & Kitchener, 2004, p. 33).

Significance to the Researcher

My personal interest in critical thinking began in an undergraduate seminar on the work of John Dewey. In this class, an exceptional professor modeled Dewey’s approach by taking education from the narrow confines of domain-specific knowledge and challenging us with problems that defied our previous understandings and forced us to expand our thinking. By helping us find heuristics for ill-structured problems, he led us from bewilderment to reasoned commitment in the face of uncertainty. In short, he provided true mentorship in cognitive development.

As I prepared to teach my first college classes this past summer in developmental English as a Second Language, I looked for curriculum that would help me build on the cognitive skills my students already possessed while challenging them to reach new understandings. However, I was dismayed by what I found. Curriculum from leading publishers in English as a Second Language seemed concerned not with the level of thinking students employed, but rather with the amount and grammatical correctness of the language they produced. The superficial activities they provided seemed disconnected from my students’ cognitive capabilities. In class discussions of current and historical events, students in my ESL classes demonstrated key characteristics of critical thinking: willingness to consider and evaluate multiple perspectives (King and
Kitchener, 2004; Baxter Magolda, 2004; Kegan, 1994) and to articulate and defend personal values (Kegan, 1994; Baxter Magolda, 2004) in ways that students in my traditional college classes were either unwilling or unable to. I began to suspect that the experiences of immigrating and acculturating to the United States might have honed critical thinking skills that they could use to succeed in college.

This initial suspicion motivated my research of critical thinking and immigrant college students. I set out to discover which levels of critical thinking immigrants brought to college and the kinds of experiences that had nurtured these skills in order to help colleagues, administrators, and even curriculum publishers understand how to match and challenge the intellectual growth of English learners while promoting their development in academic English.

Theoretical Foundations of Critical Thinking

Current conceptions of critical thinking stem from the foundational work of William Perry in 1970. Perry proposed four main stages of epistemological development underlying critical thinking: dualism, multiplicity, relativism, and commitment (West, 2004). His stages have since been verified and modified by several other cognitive researchers (Hofer, 2005; King & Kitchener, 2004; Baxter Magolda, 2004; Belinky, Clinchy, Goldberger, & Terule, 1986).

Dualism

In the first stage, which Perry called dualism, people see knowledge as absolute and certain. Therefore, they believe that all new information can be neatly sorted into two
categories: right or wrong (Perry, 1970; Belinky et al., 1986, King & Kitchener, 2004; Baxter Magolda, 2004).

**Multiplicity**

In the next stage, multiplicity, learners acknowledge the presence of some uncertainty, but assume that there is a right answer for everything and that anything not yet known will be discovered by experts eventually. Realizing that experts disagree brings them to a new absolute: that since expert opinions cannot be trusted, their personal opinions are as valid as those of experts (Perry, 1970; Belinky et al., 1986, King & Kitchener, 2004; Baxter Magolda, 2004). At this point, they are adamant about their opinions and will only consider evidence favoring their personal views (King & Kitchener, 2004). Gradually, they confront the reality of uncertainty and embrace the other extreme, that because nothing can be known with certainty, all truth is relative and all opinions are equally valid (Hofer, 2004; King & Kitchener, 2004). Where they once dogmatically defended their own opinions, they now become hesitant to embrace any opinion, having no criteria with which to judge one opinion as more valid than another (Perry, 1970; Belinky et al., 1986, King & Kitchener, 2004).

**Relativism**

In Perry’s third stage, relativism, learners come to see knowledge as contextual and to realize that criteria within each domain or discipline can be used to evaluate evidence. They also understand that exploring multiple perspectives is key to making effective decisions. Most importantly, they start to see their responsibility to take a
position after evaluating evidence and perspectives (Perry, 1970; King & Kitchener, 2004; Baxter Magolda, 2004).

**Commitment**

The highest level of critical thinking, reasoned commitment in the face of uncertainty, begins when students move beyond relativism and commit in faith to personal beliefs and values (Perry, 1970; King & Kitchener, 2004; Baxter Magolda, 2004). Acknowledging that complete certainty is impossible and that their own powers of reason are limited, they must conclude that they are “sure enough for a personal stance” on issues important to them (King & Kitchener, 2004, p. 7). Only by doing this can they establish a sense of identity that allows them to relate personally and meaningfully to a relativistic world.

**Extensions of Perry’s Research**

Further research revealed that moving from relativism into commitment is a three-step process. Marcia Baxter Magolda tracked the epistemological development of 101 college students from their freshman year of college through their personal and professional experiences in the twelve years after graduation (1992; 2001; 2004) She concluded that in order to achieve the highest level of critical thinking, adults must come to a Crossroads (Baxter Magolda, 2004) where they experience disequilibrium, acknowledge that their current way of thinking is unsatisfactory, and develop their own internal criteria, rooted in personal identity, for evaluating arguments and options and making decisions that correlate with their sense of self. The development of this internal belief system, which Robert Kegan (1994) calls *self-authorship*, has been shown
to correlate positively with success academically, personally, and professionally (Pizzolato, 2006; King & Kitchener, 2004; Kegan, 1994; Baxter Magolda, 2004). Reaching this stage promotes stability and success in three domains: intrapersonally because subjects have developed a strong sense of identity, interpersonally because they understand their own needs and pursue mutually fulfilling relationships, and cognitively because they are able to consider and evaluate different perspectives and demonstrate problem-solving skills that help them meet academic and vocational challenges (Baxter Magolda, 2004).

**Self-Authorship and High-Risk College Students**

Because self-authorship has been shown to impact student achievement both inside and outside of the classroom (King & Kitchener, 2004; Baxter Magolda, 2004; Kegan, 1994), recent self-authorship research has shifted its focus to populations most commonly identified as “high-risk” for persistence and academic success: first-generation college students (Pizzolato 2003; 2004; 2005a; 2006). It is hoped that by exploring the critical thinking skills these students bring to college, researchers will be able to suggest strategies to help them successfully transition to and persist in college. Research thus far demonstrates that high-risk students who encounter resistance from peers, family, or community members during the college decision process are more likely to develop self-authored identities because the dissonance they face requires them to commit to their own goals and values. Further, the self-authored identities they forge help them transition to their new identities as college students (Pizzolato, 2003).
Need for Further Research with Immigrants

Although previous research with high-risk college students supports the hypothesis that life experiences like encountering resistance may encourage the development of self-authorship among first-generation, mostly Caucasian native English speakers, it does not specifically address how these experiences affect the critical thinking skills of English language learners or immigrants. In a personal communication on November 28, 2009, Pizzolato clarified that only three out of thirty-five participants in her 2003 study were immigrants and English learners.

In fact, few studies of self-authorship or critical thinking have been conducted specifically with immigrants. However, research indicates that the process of ethnic identity development may encourage the development of critical thinking skills and that the right kinds of support in college can solidify and hone these skills. While immigrants may initially internalize the negative stereotypes associated with their cultures, pointed discussions in college classes focused on critical thinking can lead them to question the negative stereotypes they have absorbed, seek out friendships that reinforce their ethnic identities, and take positive steps toward success at the college level, from greater participation in class discussions to jobs necessitating English usage (Torres and Baxter Mogolda, 2004; Torres & Hernandez, 2007).

In order to provide this support and successfully mentor students on the journey to self-authorship, instructors must be able to identify students’ current levels of cognitive development (Baxter Magolda, 2004; Kegan, 1994). Because current research on critical thinking among immigrant college students is incomplete:
1. Little is known about the prerequisites of self-authorship among immigrant students. Further research must explore which life experiences prompt them to develop self-authored identities.

2. Few resources are available to help college instructors facilitate the development of self-authorship by building on immigrants’ prior experiences and guiding them toward new ways of making meaning.

This study contributes to personal epistemology research by examining the critical thinking skills exhibited by seven college students who immigrated to the United States during or after high school and were enrolled in developmental writing classes at a community college in a rural Midwestern town that had seen a large influx of Somali and Latino immigrants over the two decades prior to the study. I chose students who immigrated more recently not only because the immigration experience would be fresh in their minds, but also because according to cognitive research, most students first develop the capacity for critical thinking in late adolescence or early adulthood (King & Kitchener, 2004; Kegan, 1994). Therefore, I reasoned that these participants might be more likely to respond to the disequilibrium created by immigration and acculturation in ways that encouraged the development of self-authorship.

Using both quantitative and qualitative methods including background questionnaires, semi-structured interviews, and Creamer and Laughlin’s (2006) Career Decision-Making Survey, I explored the answers to one major question and two subquestions:
1. To what extent do seven Asian and East African immigrant community college students between the ages of nineteen and thirty-one demonstrate self-authorship, the use of an internal system of beliefs and values to guide their learning, decisions, and relationships, and how did they arrive at this stage of development?
   
a. Which levels of epistemological development do these students demonstrate in which domains?
   
b. What types of pivotal pre-collegiate life experiences have created dissatisfaction with previous ways of making meaning and led to their current levels of epistemology?

Conclusion

In this introductory chapter, I have highlighted the importance of self-authorship to college students, instructors, and administrators as well as its significance to my current teaching situation. I have described its underpinnings in the works of Dewey and Perry as well as more current research that has tested and expanded upon Perry’s Scheme of Intellectual Development. Finally, I have previewed current extensions of self-authorship research to high-risk college students and highlighted the need for more research specifically with immigrants.

In Chapter 2, I provide a more detailed overview of self-authorship research, including the major developmental theorists that have shaped it, the benefits of self-authorship in academic, interpersonal, and professional domains, the extension of self-authorship research to high-risk college students, and the need for further research with immigrants. In Chapter 3, I present the methodology of the study, which replicates the
semistructured interviews used by Pizzolato (2003) to assess critical thinking through narratives of significant life experiences and the *Career Decision-Making Survey*, which Creamer and Laughlin (2006) have created as a quantitative measure of self-authorship. Through written questionnaires, I also collect background information on each participant and use it as a springboard for the interviews. Chapter 4 presents the results: codes and general trends which emerged from a constant comparative analysis of the interview data using constructivist grounded theory and how these trends conflict or correlate with the findings of the *Career Decision-Making Survey*. Finally, Chapter 5 discusses implications of the study for college instructors and administrators as well as for further research.
CHAPTER TWO: LITERATURE REVIEW

Thus far, I have introduced the origin and relevance of my research question and subquestions:

To what extent do these seven Asian and East African immigrant community college students between the ages of nineteen and thirty-one demonstrate self-authorship, the use of an internal system of beliefs and values to guide their learning, decisions, and relationships, and how did they arrive at this stage of development?

a. Which aspects of epistemological development do these students demonstrate in which domains?

b. What types of pivotal pre-collegiate life experiences have created dissatisfaction with previous ways of making meaning and led to their current levels of epistemology?

However, in order to set my research firmly and meaningfully in the context of that which has come before, I will elaborate on the major developmental theories and theorists associated with self-authorship, the benefits of self-authorship for college students and adults, the extensions of self-authorship research to high-risk college students, and the need for further research with immigrants.
Theoretical Foundations of Self-Authorship

Current conceptions of self-authorship stem from the foundational work of William Perry, who interviewed 109 Harvard students between the years of 1959 and 1963 and used his findings to propose four main stages of epistemological development underlying critical thinking (West, 2004; Hofer, 2004; 2005). He further subdivided these stages into nine positions. Perry’s scheme of intellectual development has since been verified and extended by several other cognitive researchers (Hofer, 2005; King & Kitchener, 2004; Baxter Magolda, 2004; Belinky et al, 1986).

Dualism

In the first stage, which Perry called dualism, people see knowledge as absolute and certain. In Position One of this stage, they assume that everyone embraces the same understandings about reality that they do. In Position Two, they accept that alternate views exist, but simply dismiss them as incorrect. They believe that all new information can be neatly sorted into two categories: right or wrong.

Multiplicity

In this stage, knowers gradually embrace multiple perspectives and the reality of uncertainty. In Position Three, they acknowledge the presence of some uncertainty, but assume that there is a right answer for everything and that anything not yet known will be discovered by experts eventually. Realizing that experts disagree brings them to Position Four, in which they conclude that since expert opinions cannot be trusted, their personal opinions are as valid as those of experts. At first, they are adamant about their opinions and will only consider evidence favoring their preconceived views. Gradually, they
embrace the other extreme: that because nothing can be known with certainty, all truth is relative and all opinions are equally valid. Where they once dogmatically defended their own opinions, they now become hesitant to embrace any opinion, having no criteria with which to judge one opinion as more valid than another.

Relativism

Position Five begins Perry’s third stage, relativism, in which learners come to see knowledge as contextual and to realize that criteria within each domain or discipline can be used to evaluate evidence. They also understand that exploring multiple perspectives is key to making effective decisions. In Position Six, they acknowledge that merely evaluating evidence and perspectives is not enough and that they must move beyond this to take a position on controversial issues.

Commitment

The highest stage of critical thinking, reasoned commitment in the face of uncertainty, begins in Position Seven, when students transcend relativism and commit in faith to personal beliefs and values. Acknowledging that complete certainty is impossible and that their own powers of reason are limited, they conclude that they are “sure enough for a personal stance” on issues important to them (King & Kitchener, 2004, p. 7). Making this personal investment requires both faith and courage, but is the only way to find identity and to identify, personally and meaningfully, with a relativistic world (Perry, 1970). However, learners must go beyond simply choosing their commitments. In Position Eight, their commitments are challenged, forcing them to explore their implications and make adjustments. Finally, in Position Nine, they embrace a lifelong
process of reevaluating their commitments in light of new experiences and implications (Perry, 1970).

Since Perry’s foundational study of the epistemological development of young men at Harvard, researchers have tested and applied his model with different populations. Stages of epistemological development among women closely relate to those originally presented by Perry (West, 2004; Belinky et al, 1986). However, some women who have experienced “poverty, isolation, subordination, rejection and often violence” do not fit anywhere on the developmental continuum because they deem themselves incapable of knowing anything (Belinky, 2002, p. 65). This phenomenon, called *silence*, is classified as a “failure to develop, a position of not knowing (Belinky, 2002, p. 65).

Although stages of epistemological development are remarkably similar between men and women, there are some significant differences in gendered ways of knowing. Men and women who begin the developmental process move from seeing knowledge as absolute and possessed by authorities to seeing all opinions as equally valid. However, while men in Perry’s study dogmatically defended their opinions in this stage, women were more likely to dismiss their opinions in order to avoid giving offense (Belinky et al, 1986; West, 2004). In the third epistemological stage, both genders suspend judgment while using criteria in each context to evaluate knowledge. However, Belinky et al deepened understanding of this process by identifying two methods of evaluation: separate and connected (1986). Separate knowers depend on neutrality, objectivity and logic to determine an argument’s validity, while connected knowers rely primarily on empathy, seeking to understand the point of view of the person making the argument.
Rather than dismissing emotions and subjective experiences as potential sources of bias, they see them as valuable tools for understanding another person’s perspective before making a judgment. In the highest stage of Perry’s and Belinky et al’s models, learners recognize that knowledge is constructed and take personal responsibility for developing well-reasoned systems of beliefs (West, 2004).

Marcia Baxter Magolda (1992) further confirmed the relevance of Perry’s developmental model for both genders. While she gave different titles to the stages she identified, her stages were quite similar to Perry’s, and her longitudinal study of 101 male and female college students corroborated his findings as well as those of Belinky et al (1986). Although stages of epistemological development have been shown to apply to Western college students of both genders, research has yet to explore whether these epistemological stages apply to men and women from other cultures, especially those in which gender roles are more rigidly defined (Baxter Magolda, 2004). For that reason, the current study will examine epistemological development among men and women from East African and Southeast Asian cultures in which societal expectations of gender are more strictly prescribed.

King and Kitchener’s Reflective Judgment Model (2004) confirmed Perry’s scheme, explained why students may not use their most advanced epistemological reasoning in every situation, and identified the developmental zone in which college instructors can best influence students’ development. Quite similar to Perry’s, their model incorporated Kitchener and Fischer’s (1990) concepts of functional and optimal levels of thinking. The functional level is the cognitive stage a person can access independently,
while the optimal level is the highest stage he or she can achieve given support and context. The area between the two, known as the developmental range, is of greatest importance to educators because it is the context in which to provide challenge and support (Kegan, 1994; Baxter Magolda, 2002; Drago-Severson; 2004). Optimal levels are connected to age and often develop in spurts, with one spurt occurring during the traditional college years (Kitchener & Fischer, 1990; King & Kitchener, 2004). This supported the idea that the college years held tremendous potential for intellectual growth. However, most participants in King and Kitchener’s longitudinal study did not realize this potential during college, and only doctoral students consistently used the assumptions of reflective thinking (King & Kitchener, 2004). Since research thus far has focused on Western college students, it is unclear how the college years may serve as a catalyst for immigrants’ epistemological development or whether immigrants’ pre-collegiate life experiences can help them achieve reflective thinking during college. The current study will help to answer these questions by examining the extent to which immigrant college students demonstrate self-authorship and the life experiences that may have led to their current levels of epistemological development.

An important extension of Perry’s Scheme was the incorporation of multiple dimensions of development: interpersonal, intrapersonal, and cognitive. These dimensions were first described by Robert Kegan, whose epistemological model outlined six orders of consciousness (1982; 1994). He asserted that reaching higher orders of consciousness would enable adults to handle challenges in every area of life.
Kegan explored how individuals make meaning through a “balancing and rebalancing of subject and object, or self and other (1999, p. 65). Subject refers to aspects of personality that are subconscious and cannot be reflected upon, while object describes conscious ways of making meaning that can be manipulated and modified. As people move upward in Kegan’s scheme, they can manipulate more ways of making meaning (Love & Guthrie, 1999). Further, each of Kegan’s orders of consciousness alters ways of meaning making in all three dimensions: interpersonal, intrapersonal, and cognitive.

Order 0: Incorporative

In this order, senses and reflexes dominate infants’ worlds as they learn basic differences between themselves and their environments.

Order 1: Impulsive

At this stage, children under eight are unable to think abstractly, distinguish their perceptions from reality, or control their impulses.

Order 2: Imperial/Instrumental

In the second order, children and young adolescents begin to control impulses and recognize that others’ needs and perspectives differ from their own. However, they are not yet able to consider multiple perspectives, as they still see other people as instruments for meeting their own needs (Kegan, 1982). They feel no sense of guilt beyond a fear of punishment. This is because they cannot yet “think abstractly” or accept their responsibilities to a “broader community” (Love & Guthrie, 1999, p. 69). In the realm of education, they view learning as an “accumulation of skills, facts, and actions” that they
can use to meet personal goals and needs; their dominant attitude toward education is, “What’s in it for me?” (Drago-Severson, 2004, p. 29).

**Order 3: Interpersonal/Socializing**

For older adolescents and adults in this order, there is no identity apart from relationships; others’ approval and expectations dominate one’s sense of self. True intimacy is impossible because “there is no self to share with another; instead, the other is required to bring the self into being” (Kegan, 1982, p. 97.) In this stage, individuals first become able to think abstractly about “values and ideals” and to put the interests of others before their own (Love & Guthrie, 1999, p. 70). They can also consider the effects of their decisions on relationships. In fact, they often hesitate to acknowledge or express anger because of the threat it poses to relationships (Drago-Severson, 2004). As students, they are driven by the desire to meet teachers’ expectations. Their primary question for teachers becomes, “What do you think I should know?” (Drago-Severson, 2004, p. 29).

**Order 4. Institutional/Self-Authorship**

In Kegan’s fourth order, students develop a deeply held personal value system that allows them to attain self-authorship, “the ability to write one’s own life” (cited in Love & Guthrie, 1999, p. 71). Thinkers at this stage establish personal expectations for their behavior, but can also modify their expectations in situations where values conflict. In addition, they are able to evaluate relationships and avoid “[becoming] too dependent on a relationship...as the source of their personal happiness” (Love & Guthrie, 1999, p. 73). As students, they start to see learning as intrinsically valuable and essential for social change. They begin to ask, “What is important for me to know to keep learning
and growing?” and “How can I use what I know for the common good?” (Drago-Severson, 2004, p. 29).

Because the transition from the second to the third order occurs “between ages twelve and twenty,” it is most likely to be encountered by secondary and early college educators (Love & Guthrie, 1999, p. 69). Students in this transition gradually learn to think abstractly, reflect on their own thinking, consider others’ perspectives, and value relationships intrinsically rather than “as a means to an end” (Drago-Severson, 2004, p. 32). In order to support students cognitively and socially at this stage, instructors and counselors must help them understand what is expected of them by openly discussing multiple perspectives and situations in which students must be willing to compromise for the common good (Love & Guthrie, 1999).

The transition from the third to fourth order is “the principal transformation of consciousness in adulthood” (Kegan, 1982; as cited in Love & Guthrie, 1999, p. 71). This transition begins when students understand that being defined by relationships and external expectations is inadequate, then “struggle to extricate themselves from others’ expectations” and develop “an independent selfhood with an ideology of their own” (Love & Guthrie, 1999, p. 71; Drago-Severson, 2004).

Moving from the third to the fourth order is a three-step process (Baxter Magolda, 2001; 2002; 2004). First, adults must come to the Crossroads in which they experience disequilibrium, become frustrated with external expectations, and acknowledge that their current way of thinking is unsatisfactory. To successfully navigate this Crossroads, they must develop internal criteria, rooted in personal identity, for evaluating arguments and
options in a process called Becoming the Author of One’s Own Life. Completing this process yields Internal Foundations that guide decisions about learning, relationships, and personal challenges (Baxter Magolda, 2001; 2002; 2004; Pizzolato; 2003). Using these internal foundations, self-authored individuals can answer the questions, “How do I know?” “Who am I?” and “What kind of relationships do I want?” in ways that correlate with their sense of identity (Kegan, 1994; Baxter Magolda, 2004). Reaching this stage promotes stability and success intrapersonally because subjects have developed a strong sense of identity, interpersonally because they understand their own needs and pursue mutually fulfilling relationships, and cognitively because they can evaluate different perspectives and use problem-solving skills to meet academic and vocational challenges. These three dimensions of development are interdependent and mutually supportive (Kegan, 1994; Perry, 1970; Belinky et al, 1986; Baxter Magolda, 2004). Even when knowers achieve higher levels of development in one domain, they cannot put them into practice without sufficient advances in the other two domains (King & Kitchener, 2004).

In research done predominantly among mostly Caucasian college students, experiences that promote epistemological development in any domain have been termed developmentally effective experiences and have been shown to have four major effects. The nature and extent of these effects varies based on students’ current levels of epistemological development (King et al, 2009).

1. Increasing awareness, understanding of, and openness to diversity

As students at the initial level of development encounter greater diversity in college, they are uncomfortable at first, but gradually begin to consider how the
perspectives of diverse others compare with their own. At an intermediate level of
development, they grow in their understanding of and empathy with diverse perspectives,
while those approaching self-authorship value and respect diversity.

2. Exploring and establishing a basis for beliefs, choices, and action

Often because of their encounters with diversity, learners begin to explore their
own beliefs. At the initial level, they begin to realize that beliefs have a basis and that
they need to discover what motivates their personal beliefs. At the intermediate level,
they understand that they are responsible for defining their beliefs and start the process of
doing so. More mature students learn to think critically, defending their own views and
evaluating multiple perspectives.

3. Developing a sense of identity to guide choices

In response to developmentally effective experiences, students at the initial level
begin to discover their own needs and priorities, while intermediate students evaluate
their goals, values, and needs, and more epistemologically advanced students make
choices to apply the beliefs and values they have defined.

4. Increasing awareness of and openness to responsibility for own learning

Students at the initial level become more willing to question, to seek help, and to
set their own priorities. However, they still depend on the advice of others for
educational success. At the intermediate level, students become better able to reflect on
and assess their abilities and make their own decisions in learning. More mature students
become able to apply learning to life on their own.
Providing developmentally effective educational experiences must be a primary concern of college instructors and administrators because reaching self-authorship is essential to developing self-motivation, maintaining healthy relationships, regulating behavior, and setting personal standards of excellence distinct from those dictated by professors (Kegan, 1994; Love & Guthrie, 1999; Baxter Magolda, 2001). Further, the college transition process can be an ideal context for promoting the transition to self-authorship as instructors and counselors respectfully support students in working through disequilibrium to higher intellectual levels (Kegan, 1982).

**Interindividual**

Although Kegan’s fourth order is most relevant for educators and most essential for life in society, it is not the highest order of consciousness an individual can reach (Kegan, 1982; 1994; Love & Guthrie, 1999). In the highest order of consciousness, Interindividual, knowers can choose between conflicting values, sometimes subverting their desires in order to achieve future goals or preserve relationships they have prioritized over personal desires. In this order of consciousness, knowers make decisions based not on absolute personal autonomy, but on identity within the context of relationships. Individuals in this stage will conclude, “The self-authorizing capacity to ‘decide for myself’ does not also have to implicate the stylistic preference to ‘decide by myself.’ I can be self-authoring in a relational way” (Kegan, 1994, p. 219). Rather than viewing personal autonomy as the highest goal, they will pursue mutual, interdependent relationships that help all parties involved attain more integrated and complete selves (Kegan, 1994; Baxter Magolda, 2001). Since research thus far has focused on students in
individualistic Western societies, it is unclear whether students in more collectivist societies emphasizing interdependent relationships will be more likely to achieve and embrace this highest epistemological level (Pizzolato, personal communication, 2010). In the process of exploring which aspects of self-authorship immigrant students demonstrate, the present study will examine students’ attitudes toward relationships and how their collectivist cultural backgrounds influence these attitudes.

In addition to elucidating the stages of epistemological development and the transition to self-authorship, previous epistemological researchers help explain why individuals can exhibit different levels of epistemological reasoning in different contexts (West, 2004). In each of these theories, cognitive stages are qualitatively different but build on each other and follow a predictable progression (West, 2004; Kegan, 1994). Movement between stages occurs through equilibration, in which beliefs that no longer explain personal experiences are reevaluated and modified in light of new information (Piaget, 1950; Hofer, 2002; Baxter Magolda, 2002). However, the development of epistemological stages is nonlinear, often occurring in “waves across a mixture of stages, where the peak of a wave is the most commonly used set of assumptions” (King and Kitchener, 2004, p. 10; Kegan, 1994). While knowers may draw from different sets of assumptions when approaching problems, these assumptions must come from “adjacent stages” (King & Kitchener, 2004, p. 10; K.S. Kitchener & Fischer, 1990). For instance, a person who primarily uses Stage Two assumptions to solve problems may occasionally access Stage Three or revert to Stage One, but will be unable to reach Stage Four. In addition, levels of epistemological development can vary by domain; a person may
demonstrate different epistemological assumptions in different disciplines (Hofer & Pintrich, 1997; Palmer & Mara, 2004).

Although past epistemological research has presented unified trends of epistemological development, it has also been limited to college students from Western cultures (Baxter Magolda, 2004; King & Kitchener, 2002). Further research must focus on more diverse populations to find out if Perry’s Scheme and the models that arose from it are truly universal or if patterns of intellectual development vary by culture. “Neither Perry nor any of his major interpreters have made assumptions of universality or comprehensiveness for the model; the scheme has always been clearly grounded in Western higher education” (Moore, 2002, p. 25). Personal epistemology research thus far has focused on Caucasian young adults in private universities, creating a need for more research with “groups with varying races, ethnicities, economic classes, and sexual orientations...in a range of college contexts” (Baxter Magolda, 2004, p. 42). Research with minority students must explore how cultural differences influence epistemological development as well as which pivotal life experiences trigger self-authorship among minority students (King & Kitchener, 2002). Kegan (1994) asserts that the need for self-authorship is a universal one, shared across ethnicities and social classes. But in the plethora of Perry-inspired research since 1970, one crucial area remains unexplored: how schemes of intellectual development based on interviews with Caucasian subjects apply to people from other cultures. Accordingly, this study examines the extent to which rural community college students from East African and Asian cultures possess self-authorship, the pre-collegiate experiences that have shaped their intellectual
development, and the aspects of critical thinking they demonstrate. By focusing on students at a rural two-year community college, it also answers Baxter Magolda’s call for research in more varied college settings.

Benefits of Self-Authorship

Promoting self-authorship must be a primary concern of college instructors and administrators because it enables students to accomplish academic objectives of thinking critically, being self-motivated, acting for the good of others, developing healthy relationships, and self-regulating their behavior. Even outside of school, the development of self-authorship is crucial to success in families, workplaces, and societies, as it directly influences the ability to lead a family and direct children, support partners and maintain a realistic view of love, achieve self-motivation and personal responsibility at work, and avoid dogmatism and ethnocentrism in society (Kegan, 1994). Self-authorship also contributes to effective problem-solving and greater independence in work environments, ability to handle personal crises such as illness or grief, and greater satisfaction in relationships (Baxter Magolda, 2007; Kozak, 1996, as cited in King & Kitchener, 2002). By contrast, adults who do not achieve self-authorship in college are more likely to seek financially draining career changes, divorce, and professional therapy before finally developing self-authored identities later in life (Baxter Magolda, 2002). This is because without self-authorship, adults form relationships with others to please others, with insufficient regard for their own needs (Baxter Magolda, 2002). However, becoming comfortable with the internal voice creates a security to explore others’ perspectives without being defined by them (Baxter Magolda, 2002; 2004).
Further research has confirmed the academic and educational benefits of self-authorship by correlating it with self-regulation and self-direction (Hofer & Pintrich, 1997), as well as motivation (Buehl & Alexander, 2004; Olaussen & Braten, 2004, as cited in Hofer, 2005). Students at higher cognitive levels are more likely to embrace new concepts, focus on learning over performance, and maintain persistence, motivation, and strategy use in the face of academic challenges (Dweck and Leggett, 1988, as cited in Qian & Pan, 2002) and to have higher reading comprehension and metacognitive awareness (Schommer, 1990, as cited in Hofer, 2005). Among ethnically diverse high-risk college students, progress toward self-authorship correlates with increases in semester and cumulative grade point averages and with persistence in college (Pizzolato, 2006). Similarly, higher levels of reflective judgment predict higher grade point averages and graduation rates among African-American seniors (King & Taylor, 1992, as cited in King & Kitchener, 2002).

Finally, higher levels of epistemological development correlate with tolerance for diversity (Guthrie, King, & Palmer, 1999; as cited in King & Kitchener, 2002). To genuinely respect diverse viewpoints and people, students must obtain “the developmental complexity...to understand and accept the general idea of difference from self without feeling threat to self” (King & Baxter Magolda, 2005, p. 573). This is made possible through self-authorship, “a prerequisite for mature understanding of culturally different worldviews” (King & Baxter Magolda, 2005, p. 577).

However, key decision-makers in education have yet to realize that promoting self-authorship in teaching, advising, and co-curricular activities is essential to preparing
students for all aspects of life. As colleges face increasing federal pressures to use student learning outcomes as the ultimate measure of their effectiveness, they “need a broader, more holistic framework for understanding and fostering student intellectual growth” (Meszaros, 2007, p. 13). Although a growing body of research supports the benefits of self-authorship, discussions of this concept and the theories behind it are “noticeably missing in the national conversations” about collegiate learning outcomes (Meszaros, 2007, p. 9). For this reason, researchers “need to speak directly to practitioners about the utility and importance of attending to beliefs about knowledge and knowing” (Hofer, 2005, p. 102). Further research must explain self-authorship in ways that are accessible to college educators and administrators and present practical classroom applications. The present study aims to meet this need by both illuminating students’ current levels of development and addressing their implications in the classroom.

Self-Authorship and High-Risk College Students

Because self-authorship has been shown to impact student achievement both inside and outside of the classroom (King & Kitchener, 2004; Baxter Magolda, 2004; Kegan, 1994), recent self-authorship research has shifted its focus to populations most commonly identified as “high-risk” for persistence and academic success: first-generation college students (Pizzolato 2003; 2004; 2005a). By exploring the critical thinking skills these students bring to college, researchers seek to help them transition to and persist in college. Research thus far demonstrates that high-risk students who encounter resistance from peers, family, or community members during the college decision process are more likely to develop self-authored identities because the dissonance they face requires them to
commit to their own goals and values. Further, these self-authored value systems help them transition to their new identities as college students. Conversely, high-risk students who enter college on scholarships experience more difficult transitions. Because they have not struggled with the process of applying and paying for college, they have not experienced enough dissonance to define their beliefs and values. Upon their arrival in college, they have to develop new schema for their behavior, habits, and identity as college students (Pizzolato, 2003).

Even when students enter college with self-authored identities, the challenges posed by insufficient academic preparation and experiences with discrimination can cause them to regress into lower levels of thinking (Pizzolato, 2005a). If they try to resolve disequilibrium independently, they may not return to the levels of self-authorship that propelled them into college in the first place. However, if they maintain an internal locus of control and seek out peers and mentors to help them resolve disequilibrium, they can return to their previous levels of goal-driven self-authorship. Significantly, not every event that creates disequilibrium triggers the beginning of self-authorship (Pizzolato, 2005a). For a decision to provoke self-authorship, students must feel a considerable amount of control and autonomy over it and make it with their future goals in mind. When students make decisions based on circumstances or the opinions of others, they are able to restore equilibrium, but do not begin a process of self-authorship. Pizzolato’s research demonstrates that encountering challenges and adjusting to new environments can trigger self-authorship among high-risk, first generation college students if they possess adequate levels of autonomy and support.

Need for Further Research with Immigrants

Challenges of adjustment and transition have triggered self-authorship among first generation college students and may also promote self-authorship among first generation immigrants, who are often classified as high-risk students. However, in order to confirm
this suspicion, further research must be conducted with immigrants and English learners in more diverse colleges and communities (Pizzolato, 2003; 2004; personal communication, Fall 2009). Researchers must explore how the immigration experience impacts the development of self-authorship and which life experiences may lead immigrant college students to the crossroads and encourage them to embrace self-authored identities.

Thus far, few studies of self-authorship or critical thinking have been conducted specifically with immigrants. One study found that cultural differences could impede the development of critical thinking skills required in Western universities. In a case study of one Korean doctoral student, Bifah-Ambe (2009) discovered that because the student was used to memorizing and reiterating information to demonstrate mastery, she consistently did poorly on assignments requiring critical thinking. While this study suggested possible cultural challenges to critical thinking among English learners, it did not describe the life experiences that could help them overcome these challenges.

Other research suggests that the process of ethnic identity development may encourage the development of critical thinking as students grapple with racism and oppression (Torres & Baxter Magolda, 2004; Torres & Hernandez, 2007). While refugees may originally internalize the negative stereotypes associated with immigrants and be ashamed of their accents and cultures, pointed discussions in college classes can help them question these stereotypes, take pride in their identities, and begin taking positive steps toward success at the college level, from becoming more involved with class discussions to taking jobs necessitating English usage and seeking out friendships that reinforce their ethnic identity (Torres & Baxter Magolda, 2004).

However, if students in the External Formulas phase encounter racism without adequate support, they often resort to avoidance, retreating back into cultural formulas and
failing to progress epistemologically (Torres & Hernandez, 2007). Further, this regression in one dimension can limit their progress in others. If students progress in one dimension, they also move forward in others so that there is only one stage of difference between dimensions. For instance, “the few students that reached Internal Foundations in the intrapersonal dimension were at least at Becoming the Author of One’s Life in the other dimensions” (Torres & Hernandez, 2007, p. 570). Conversely, stagnation in one dimension can hinder development in others. This is why “the ability to recognize racism...was a critical moment for students who began in External Formulas and entered the Crossroads phase” (Torres & Hernandez, 2007, p. 571).

Students’ responses to racism and the support they received in processing it determined whether it would hinder or stimulate their epistemological growth (Torres & Hernandez, 2007). Intrapersonally, students who followed external formulas defined their cultural identity by their birthplace or the formulas provided by their families. They were prone to absorbing negative stereotypes subconsciously. At the Crossroads, they began to understand that these stereotypes stemmed from racism and to make choices about what to accept or reject from their culture as well as the majority culture. At this stage, the social pressure not to change their culture often provoked enough dissonance to prompt them to define their own identities (Torres & Hernandez, 2007). In the first stage of self-authorship, Becoming the Author of One’s Own Life, they began to integrate the choices they had made into their lives and to advocate for others from their culture. By the time they entered Internal Foundations, they were secure in their identity and comfortable around those who were different (Torres & Hernandez, 2007).

In the interpersonal realm, Latino students needed to make choices about the relationships they would seek out to help them deal with the effects of racism. Those following external formulas were threatened by difference and only pursued relationships with those from their culture. They tended to trust the family and friends closest to them
more than other authority figures like teachers and academic advisors. When students moved into the Crossroads, often because a change in their environment exposed them to greater diversity, they became more open to multiple perspectives and more able to “manage family expectations rather than be driven by” them (Torres & Hernandez, 2007, p. 568). Although their collectivist cultural orientation did not allow them to neglect family expectations, these expectations no longer dominated their lives. As they matured interpersonally, they became increasingly comfortable with diversity and better able to integrate diverse relationships into their lives.

Instructors must understand the epistemological development of immigrant students in order to successfully mentor them on the journey to self-authorship (Baxter Magolda, 2002). In the words of Soren Kierkegaard,

In order to help another effectively, I must understand what he understands. If I do not know that, my greater understanding will be of no help to him...Instruction begins when you put yourself in his place so that you may understand what he understands and in the way he understands it (quoted in Kegan, 1994).

By exploring what these seven East African and Asian immigrant community college students between the ages of nineteen and thirty-one understand and the ways in which they understand it, this study seeks to enable instructors to design lessons that match and challenge the epistemological growth of English learners.

Conclusion

Thus far, discussions of major developmental theories and theorists associated with self-authorship (Dewey, 1933; Perry, 1970; Belinky et al, 1986; Kegan, 1994; Baxter Magolda, 2002; King & Kitchener, 2004) the benefits of self-authorship for college
students and adults (Kegan, 1994; Baxter Magolda, 2002; Baxter Magolda & King, 2005), and extensions of self-authorship research to high-risk college students (Pizzolato, 2003; 2004; 2005a; 2006) have revealed a particular need to explore self-authorship among immigrants (King & Kitchener, 2004; Pizzolato, personal communication, 2010) and present findings to college instructors and administrators in a way that encourages classroom application (Meszaros, 2007).

The next chapter will describe the methodology of a study that meets these needs by exploring the extent to which seven Southeast Asian and East African immigrant community college students use internal systems of beliefs and values to guide their decisions and responses to difficulties, the levels of development they demonstrate in each domain, and the life experiences that have led to their current levels of epistemological development. Through semi-structured interviews about significant life experiences, the researcher will seek to answer Subquestions A and B by qualitatively exploring how participants make decisions: the perspectives they most strongly consider, the extent to which relationships with significant others influence their choices, their reflections on those choices today, and how those choices influenced their epistemological development. Finally, resolving conflicts between interview data and Laughlin and Creamer’s Career Decision-Making Survey will deepen understanding of epistemological development among these first-generation immigrant community college students.
CHAPTER THREE: METHODOLOGY

This chapter will describe the research questions explored in this mixed methods investigation of epistemological development among immigrant college students, the research paradigm underlying the methodology, and the characteristics of the study’s participants and setting. Ethical considerations, including how participants were recruited and how their confidentiality was protected, will also be described. An overview of trends in self-authorship assessment will be given along with an explanation of the need for more mixed-methods investigations of self-authorship. The study’s main instrument, the qualitative semi-structured interview, will be described along with the background questionnaire and quantitative survey that triangulated its results.

Research Questions

This mixed-method exploration of self-authorship among immigrant community college students compares qualitative data from semi-structured interviews about significant life experiences with quantitative data from Creamer and Laughlin’s Career Decision-Making Survey to explore answers to one major question with two subquestions:

1. To what extent do seven Southeast Asian and East African community college students who immigrated to the US during or after high school demonstrate self-
authorship, the use of an internal set of beliefs and values to guide their decisions, learning, and relationships, and how did they arrive at this stage of development?

a. Which aspects of epistemological development do these students demonstrate in which domains?

b. Which particular life experiences have created dissatisfaction with external formulas for decision-making and led to their current levels of epistemology?

Research Paradigm: Constructivist Grounded Theory

Constructivist grounded theory was used to code the dominant themes that emerged from the interviews (Charmaz, 2000; Baxter Magolda, 2001; 2004; Pizzolato, 2003; 2004; 2005a). Commonly used to analyze interview data, grounded theory involves inductively assigning codes, or themes, to the data contained in participants’ stories in order to develop a theory that explains the data (Charmaz, 2000; Boyatzis, 1998).

Because the formation of grounded theory is an inductive process, concepts and categories should arise from the data, and “preconceived concepts...must earn [their] way into the analysis” (Charmaz, 2000, p. 511). “Unlike quantitative research that requires data to fit into preconceived codes, the researcher’s interpretations of data shape his or her emergent codes in grounded theory” (Charmaz, 2000, p. 515; Creswell & Plano Clark, 2007).

In order to gain an accurate picture of the interview data and avoid imposing external concepts on it, the interviews were transcribed verbatim and coded line by line as data was collected, allowing the themes present in the data to emerge naturally (Baxter Magolda, 2004). In the initial coding stage, the themes that emerged from the data were
organized and compared according to the interview question answered, highlighting the similarities and differences between respondents’ answers. Codes were altered as needed in order to account for new data and identify areas where further data collection was necessary (Creswell & Plano Clark, 2007; Boyatzis, 1998).

Through constant comparative analysis, data from different participants, from the same participant at different times, and from different events or categories was compared (Charmaz, 2000; Creswell, 2009; Glaser & Strauss, 1967; Boyatzis, 1998; Pizzolato, 2003; 2004; 2005a). Throughout this process, written memos described the levels of thinking participants seemed to be demonstrating in each domain (Miles & Huberman, 1994; Merriam, 1998). For example, when students said they trusted their parents’ advice most in their college decision process because their parents “knew them better than anyone else” and “knew what was best for them” even though they had never been to college, this was identified as a marker of an initial level of development and coded as such (Torres & Hernandez, 2007).

Once the codes emerging naturally from the data were identified, the codes from the literature for evaluating self-authorship could be compiled. Previous researchers had developed rubrics for evaluating self-authorship in interviews (King et al, 2009; Baxter Magolda and King, 2005). More focused coding of these rubrics determined the identifying benchmarks of each domain and stage of development. These were determined because, “Coding self-authorship interviews requires identifying meaningful units of information, labeling those units to convey their essence in terms of meaning making, and sorting the labeled units into categories that portray the key themes of the
interviews” (Baxter Magolda & King, 2007, p. 504). Combining the codes from the literature with the codes that were added to fit the data yielded the following benchmarks of epistemological development, which are summarized in Table 3-1. A thorough description of each benchmark, along with data samples illustrating its relevance to the data in this study, can be found in Appendix D.

Table 3-1. Benchmarks from the Literature

<table>
<thead>
<tr>
<th>Cognitive</th>
<th>Intrapersonal</th>
<th>Interpersonal</th>
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<tbody>
<tr>
<td>• Attitude toward Competence</td>
<td>• Attitude toward Dissension</td>
<td>• Attitude toward Relationships</td>
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<tr>
<td>• Attitude toward Multiple Perspectives</td>
<td>• Attitude toward Obstacles</td>
<td>• Attitude toward Mutuality</td>
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<td>• Attitude toward Authority</td>
<td>• Attitude toward Cultural Identity</td>
<td>• Attitude toward Conflict</td>
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<td>• Attitude toward Insecurity</td>
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<td>• Attitude toward Advocacy</td>
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<td>• Attitude toward Morality</td>
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These benchmarks from the literature earned their way into the analysis because they fit the data and arose naturally from participants’ stories. Some generalizations about thinking in each benchmark were added to more completely represent the themes of participants’ narratives. The theory was considered complete at the point of saturation, when new data consistently fit into the categories that had been created. However, like all grounded theories, this one is subject to modification in light of further research (Charmaz, 2000).
Rather than viewing their interpretations as universal, constructivist grounded theorists acknowledge that views of reality are contextual and that their own perspective is “one interpretation among multiple interpretations of a shared or individual reality” (Charmaz, 2000, 523). Instead of seeking to create a generalizable theory, they seek to answer questions about what happens in a particular context, the implications of those events, and the relationships between them (Merriam, 1998).

By using flexible codes, this research followed Charmaz’s (2000) description of constructivist grounded theory, in which codes are constantly modified to accommodate new information (Creswell, 2009). Constructivist grounded theory was appropriate for this study because previous codes for interviews with immigrant students had not been developed (Pizzolato, 2003; 2004; 2005) and because it allowed the researcher to adapt the codes used to the themes that emerged from participants’ stories (Baxter Magolda, 2004; Boyatzis, 1998).

Participants and Setting

The participants were seven college students between the ages of nineteen and thirty-one who immigrated to the United States during or after high school and were enrolled in developmental writing classes at a community college in a rural Midwestern town that had seen a large influx of East African, Southeast Asian, and Latino immigrants in the two decades prior to the study. Twelve first-generation immigrants were invited to participate in the study through e-mail. Of those, five women and two men volunteered to be part of the study for extra credit in their developmental writing classes or the chance
to win sixty dollars in a drawing. Three of the participants were from Southeast Asia, and four were from East Africa.

To protect their anonymity, all participants chose a pseudonym that was used exclusively in data storage and analysis and in the description of the study. Because in some cases, only one or two students from a country attended the college, the names of participants’ countries are not given in the study; only the geographic region is given to further disguise their identities.

Although maximum variation sampling was initially attempted, the college’s relatively small immigrant population necessitated a sample of convenience (Creswell & Plano Clark, 2007). Overall, however, the sample of participants who volunteered for the study did represent the range of ages and nationalities among first-generation immigrant students at the college and did allow the researcher to explore commonalities among diverse perspectives (Merriam, 1998; Glaser & Strauss, 1967). The researcher chose students who had immigrated more recently not only because the immigration experience would be fresh in their minds, but also because, according to cognitive research, most students develop the capacity for abstract thinking in late adolescence and early adulthood” (King & Kitchener, 2004; Kegan, 2004). Therefore, they might be more likely to respond to disequilibrium provoked by immigration and acculturation in ways that promoted the development of self-authorship.

According to the AccuPlacer, a diagnostic placement exam measuring all incoming students’ performance in reading, writing, and math, all participants possessed a level of writing competency that was below the college level and required remediation
in their construction of sentences, paragraphs, and essays. Four were traditional college
students who enrolled in college directly after graduating from American high schools,
but the rest had completed their secondary education and some college education in their
home countries. They were considered high-risk because, although they may have
possessed college-level academic skills in their first language, they were still developing
these skills in English (Calcagno & Levin, 2008).

The interviews and surveys were piloted on seven high-risk Caucasian first-
generation college students enrolled in developmental writing classes and three first-
generation immigrant college students, one Latina, one East African man, and one East
African woman, who had arrived in the United States as toddlers and were thus ineligible
for the study. Piloting helped to verify the comprehensibility of the questions and their
suitability for eliciting rich data about epistemological reasoning.

Assessment of Self-Authorship

The Predominance of Semi-structured Interviews

In each of the epistemological studies described in the literature review, self-
authorship has been assessed through semi-structured interviews lasting between sixty
and ninety minutes and beginning with questions about significant life experiences, since
open-ended narrative prompts have been shown to effectively showcase development
(Perry, 1970; Belinky et al, 1986; Kegan, 1994; Gibbs & Widaman, 1982, as cited in

Following the advice of Baxter Magolda, Pizzolato (2003; 2004; 2005),
conducted hour-long audio-taped interviews with each subject in her studies of self-
authorship among high-risk college students. She began by asking participants to describe an important experience in their lives before college. She found that because these important experiences often involved significant problems, transitions, or decisions, they provided springboards for discussions of critical thinking skills. In follow-up questions, she asked about how subjects made decisions and whether they would make the same decisions again if given the opportunity, how experiences affected them, how they became college students, and how their family and friends reacted to their decision to enroll in college (2003; 2004, 2005). Like Baxter Magolda, she used constructivist grounded theory to analyze her data.

Although King and Kitchener also used semi-structured interviews to assess epistemological reasoning, they differed from the protocols of other researchers by presenting participants with four current ill-structured problems, such as “What causes children to fail in school?” and asking how they decided what to believe, then coding responses into developmental stages. Based on the previous studies, it has been concluded that semi-structured interviews are currently the dominant method of assessing self-authorship (Pizzolato, 2007). However, they are time-consuming to administer and neglect the deeper understandings of self-authorship that can arise from comparing quantitative and qualitative responses supplied by the same participant (Pizzolato, 2007; Laughlin & Creamer, 2007; Baxter Magolda, 2007). Accordingly, the present study of self-authorship combines semi-structured interviews with quantitative surveys to provide a richer picture of self-authorship among immigrants.
The Need for Mixed Methods in Self-Authorship Assessment

This section illustrates the need for mixed methods by briefly describing quantitative survey instruments that can be used in conjunction with qualitative interviews, the results of studies using them, and the guidelines that have emerged from these studies about self-authorship assessment. Thus far, two major quantitative surveys have been developed to assess self-authorship: Pizzolato’s Self-Authorship Survey (2005b) and Creamer and Laughlin’s Career Decision-Making Survey (2006). In response to colleges’ needs for more efficient measures of self-authorship that could be used in program assessment, Pizzolato developed the Self-Authorship Survey, which contains twenty-four questions arranged in Likert scales and addressing all three dimensions of self-authorship: cognitive, intrapersonal, and interpersonal.

Pizzolato’s mixed methods study of self-authorship revealed that resolving apparent discrepancies between quantitative and qualitative measures can provide a more balanced picture of students’ epistemological development and help to explain why students shown to possess self-authorship in one measure might not exhibit it in every context. It also provided the following guidelines for effective self-authorship assessment:

1. Understanding the “motivation behind the decision” is key (Pizzolato, 2007, p. 40). Interviewers must prompt respondents to explain the personal meanings behind the terms they use (Charmaz, 2000). For example, when participants say they “want” something or think it is “best for them,” assessors must explore whether it correlates with subjects’ goals, indicating self-
authorship, or merely “feels right,” indicating a lower level of epistemological development (Pizzolato, 2007, p. 40).

2. Reasoning is more important than action.

Without the underlying ability to cognitively synthesize intrapersonal goals, sense of self, and epistemic assumptions, action cannot be self-authored, because it is not being guided by internal foundations but rather by gut instinct, rebellious desires, or a desire for satisfaction or amusement (Pizzolato, 2007, p. 40).

The quantitative instrument used in this study for assessing self-authorship is Anne Laughlin and Elizabeth Creamer’s Career Decision-Making Survey (CDMS, 2006). The CDMS includes 119 items divided into nine categories arranged in four-point Likert Scales. The first four categories provide background information about participants’ values and priorities and the career choices they considered. This information laid the foundation for participants’ semi-structured interviews by setting their decisions in context (Laughlin & Creamer, 2005; 2007). The next five categories relate more directly to self-authorship by describing the process by which participants make decisions (Creamer, 2010). A detailed description of the Career Decision-Making Survey and its role in assessing self-authorship can be found in Appendix B.

Like Pizzolato, Laughlin and Creamer (2007) have found that “discrepancies between quantitative and qualitative responses supplied by the same participant” contribute to more thorough analysis and deeper understanding of self-authorship (2007, p. 43; Pizzolato, 2007). Before coding the themes that emerged from each interview,
they read participants’ responses to the questionnaires, which allowed them to note “a fairly consistent pattern of discrepancies” leading to further heuristics to guide the assessment of self-authorship (p. 46).

1. Simply eliciting multiple perspectives may not indicate that participants are using the self-authored skill of weighing multiple perspectives in decision-making. There is an important difference between talking to people about decisions and seriously contemplating their advice. On the questionnaires, eighty-six percent of participants described discussing their decisions with adults like advisors and teachers. In the interviews, however, only seven percent mentioned these adults as significantly influencing their decisions.

2. Students at the Crossroads of self-authorship might still use external formulas to guide their decisions (Laughlin & Creamer, 2007; Baxter Magolda, 2004). On the questionnaire, fifteen percent of participants said their parents “strongly influenced” their decisions, but ninety-eight percent described parents as important in their interviews (Laughlin & Creamer, 2007, p. 47). This indicated that “students in the early phases of self-authorship may be extremely sensitive to societal expectations that they make their own decisions even while they still rely heavily on the advice of trusted others” (Laughlin & Creamer, 2007, p. 47). Knowing that society expected them to be independent, many participants claimed independence on the questionnaire, but acknowledged significant external influences in their interviews (Laughlin & Creamer, 2007).
3. Confidence in decision-making is not a reliable indicator of the capacity to make self-authored decisions. Frequently, what participants described as “confidence” was actually closed-mindedness, an “unwillingness to consider advice that contradicted what they had already decided” (Laughlin & Creamer, 2007, p. 48). Although these decisions seemed to be self-authored on the surface, they resulted from dogmatism that was antithetical to the self-authored consideration of multiple perspectives.

The findings of Pizzolato (2007) and Laughlin and Creamer (2007) exemplify the deep discussions and rich understandings of self-authorship that can result from using mixed methods of assessment. However, they are the first studies of their kind, and more research synthesizing quantitative and qualitative measures of self-authorship is needed (Baxter Magolda, 2007; Laughlin & Creamer, 2007). In response to this need, this study of self-authorship combines qualitative interviews with Laughlin and Creamer’s (2006) quantitative Career Decision-Making Survey to gain a more complete picture of self-authorship among the under-researched immigrant population (Bifuh-Ambe, 2009; Torres & Baxter Magolda, 2001; Pizzolato, 2003; 2004) and help college instructors and administrators understand students’ current levels of cognitive development (Pizzolato, 2007; Laughlin & Creamer, 2007; Kegan, 1994; Baxter Magolda, 2007) in ways that encourage classroom application (Meszaros, 2007; Hofer, 2005).

Instruments

Three instruments were used to assess epistemological development among these participants. In accordance with previous research, ninety-minute semi-structured
interviews were the main instrument of assessment. Prior to the interviews, preliminary background questionnaires gathered background information about participants. Finally, the quantitative *Career Decision-Making Survey* triangulated the results of the interviews.

**Preliminary Background Questionnaire**

First, a questionnaire was used to gather basic demographic information about participants about participants’ ethnic, linguistic, and academic backgrounds. This questionnaire can be found in Appendix A.

**Career Decision-Making Survey**

After using the background questionnaires to verify that participants were eligible for the study because they had immigrated to the United States during or after high school and were between the ages of nineteen and thirty-one, the researcher then administered Creamer and Laughlin’s *Career Decision-Making Survey*. Subsequent studies have demonstrated the validity and reliability of the *Career Decision-Making Survey* in assessing incremental progress in each stage and domain of self-authorship (Creamer, 2010; Creamer, Baxter Magolda, and Yue, 2009; Yue, Wolfe, & Creamer, 2009). Developed as a quantitative measure of self-authorship, this survey includes 119 items divided into nine sections, most of which are arranged in four-point Likert Scales. The survey can be found in Appendix B.

**Part 1: Sections Related to Career Choice**

The first three sections of the survey explored participants’ values in choosing a career. They addressed the intrapersonal benchmark of Attitude toward Cultural Identity
by helping to identify the goals and values participants were using to make decisions. They also shed light on the cognitive benchmark of Attitude toward Insecurity, as they revealed participants’ source of confidence that a career was right for them and the extent to which they valued altruism or personal benefit. A summary of these sections can be found in Table 3-2.

Table 3-2. Sections Related to Career Choice

<table>
<thead>
<tr>
<th>Section</th>
<th>Format</th>
<th>Domain/Benchmarks</th>
<th>Sample Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Interests</td>
<td>Write in their top three career choices and their reasons for considering them</td>
<td>Intrapersonal: Attitude toward Cultural Identity</td>
<td>“What are the reasons these jobs interest you?”</td>
</tr>
<tr>
<td>Important Factors in Career Choice</td>
<td>Likert Scale from 1 (Completely unimportant) to 4 (Very important)</td>
<td>Cognitive: Attitude toward Insecurity Intrapersonal: Attitude toward Cultural Identity</td>
<td>“Circle the number that shows how important each item is in your career choice.”</td>
</tr>
<tr>
<td>Most Important Factor</td>
<td>Of several factors given, choose the one that is most important.</td>
<td>Cognitive: Attitude toward Insecurity Intrapersonal: Attitude toward Cultural Identity</td>
<td>“Of the following factors...which is the single most important to you?”</td>
</tr>
</tbody>
</table>

Part 2: Sections Related to Advisors and Response to Advice

The next four sections of the CDMS examined participants’ attitude toward Competence, Authority, and Multiple Perspectives by asking whom they had consulted for advice and how they had processed each person’s advice.
Section 4: Parents’ Opinions or Views. This section offered insight into the cognitive benchmarks of Attitude toward Competence and Attitude toward Authority and how participants arrived at their level of development in these benchmarks. It explored family decision-making styles, parental attitudes toward participants’ career choices, and participants’ attitudes toward their parents’ authority.

Section 5: Sources of Career Information. This section explored two cognitive benchmarks, Attitude toward Competence and Attitude toward Multiple Perspectives, by addressing whom participants most trusted as advisors and the extent to which they consulted multiple sources. This helped determine if they had made a concerted effort to seek out multiple perspectives or merely a cursory search (Pizzolato, 2007; McLaughlin & Creamer, 2007).

Section 6: Credibility of Information Sources. This section assessed the cognitive benchmark of Attitude toward Competence by exploring which advisors participants most trusted and how likely they would be to consider advice from sources within and outside of their inner circles.

Section 7: Response to Input assessed the cognitive benchmark of Attitude toward Multiple Perspectives and the intrapersonal benchmark of Attitude toward Dissension by exploring the sources participants consulted for advice and how they responded to contradictory advice. A summary of these four sections related to advisors and processing of advice can be found in Table 3-3.
Table 3-3. Sections Related to Advisors and Response to Advice

<table>
<thead>
<tr>
<th>Section</th>
<th>Format</th>
<th>Domain/Benchmark</th>
<th>Sample Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents’ Opinions or Views</td>
<td>Likert Scale from 0 (Not applicable) to 4 (Agree)</td>
<td>Cognitive: Attitude toward Competence Attitude toward Authority</td>
<td>“I would like my parents to approve of my choice of career.”</td>
</tr>
<tr>
<td>Sources of Career Information</td>
<td>Likert Scale from 1 (Never) to 4 (Many times)</td>
<td>Cognitive: Attitude toward Competence Attitude toward Multiple Perspectives</td>
<td>“Circle the number that shows how often you have discussed career options with the following groups of people.”</td>
</tr>
<tr>
<td>Credibility of Information Sources</td>
<td>Likert Scale from 1 (Very unlikely) to 4 (Very likely)</td>
<td>Cognitive: Attitude toward Competence</td>
<td>“Circle the number that shows how likely you are to consider advice about careers offered by different people.”</td>
</tr>
<tr>
<td>Response to Input</td>
<td>Likert Scale from 1 (Disagree) to 4 (Agree)</td>
<td>Cognitive: Attitude toward Multiple Perspectives Intrapersonal: Attitude toward Dissension</td>
<td>“Even when the advice is contradictory, I try to consider the information people give me before I make a big decision.”</td>
</tr>
</tbody>
</table>

Section 8: Making Decisions and Setting Priorities. This series of questions assessed several cognitive and intrapersonal benchmarks by exploring participants’ source of confidence in academic and personal decisions, their reasons for trusting their advisors, how they responded to contradictory views, and how much thought they had given to choosing a career that matched their values and interests. A summary of this section can be found in Table 3-4.
Table 3-4. Section Related to Making Decisions and Setting Priorities

<table>
<thead>
<tr>
<th>Section</th>
<th>Format</th>
<th>Domain/Benchmark</th>
<th>Sample Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making Decisions and Setting</td>
<td>Likert Scale from 1 (Disagree) to 4 (Agree)</td>
<td>Cognitive: Attitude toward Competence</td>
<td>“I am confident about my ability to set my own priorities about my personal life.”</td>
</tr>
<tr>
<td>Priorities</td>
<td></td>
<td>Attitude toward Insecurity</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Attitude toward Authority</td>
<td>“I am most likely to trust the advice of people who know me best.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Intrapersonal: Attitude toward Cultural Identity</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Attitude toward Dissension</td>
<td></td>
</tr>
</tbody>
</table>

**Section 9: Diverse Viewpoints and Decision-making.** This series of statements assessed the cognitive benchmarks of Attitude toward Competence and Attitude toward Authority and the intrapersonal benchmark of Attitude toward Dissension. For each of the seven questions in this section, participants indicated their level of agreement with four possible answer choices, circling 1 for disagreement up to 4 for agreement. The answer choices in this category are coded and weighted to reflect the three domains of self-authorship, cognitive, intrapersonal, and interpersonal, as well as three overarching stages on the journey to self-authorship (Creamer, Baxter Magolda, & Yue, 2009). The three stages indicated by the items include:

1. **External Formulas.** Participants in this stage look to significant others to direct their decisions, relying excessively on external advice without weighing it against
personal beliefs and values. If advice conflicts with the opinions of those they trust, they refuse to consider it (Creamer, 2010).

2. **Crossroads.** In this stage, the gateway to self-authorship, individuals begin to feel dissatisfied with external formulas and look beyond family and friends as “valid sources of career information” (Creamer, 2010, p. 12), acknowledging their own opinions and starting to set their own criteria for evaluating the credibility of sources.

3. **Early Self-authorship.** In this stage, participants have a clear understanding of their own goals and values as well as criteria for judging one opinion as more valid than another. Embracing the reality of uncertainty, they seek out multiple perspectives and carefully weigh each of them against their personal beliefs. Sample survey items for each domain and stage of development can be found in the series of tables below.

Table 3-5. Question Addressing Intrapersonal Domain: Attitude toward Cultural Identity

To what extent do students consider their own goals and values in making a decision?

“My primary role in making an educational decision like the choice of a major or career is to _______”

<table>
<thead>
<tr>
<th>Initial</th>
<th>Crossroads</th>
<th>Early Self-authorship</th>
</tr>
</thead>
<tbody>
<tr>
<td>“seek direction from informed experts.”</td>
<td>“consider my own views”</td>
<td>“make decisions considering all the available information and my own views”</td>
</tr>
</tbody>
</table>
Table 3-6. Question Addressing Interpersonal Domain: Attitude toward Mutuality

To what extent do students rely on their advisors?

“In my opinion, the most important role of an effective career counselor or advisor is to_____________”

<table>
<thead>
<tr>
<th>Initial</th>
<th>Crossroads</th>
<th>Early Self-authorship</th>
</tr>
</thead>
<tbody>
<tr>
<td>“provide guidance about a choice that is appropriate for me”</td>
<td>“help students think through multiple options.”</td>
<td>“provide students information that will help them to make a decision on their own.”</td>
</tr>
</tbody>
</table>

Table 3-7. Question Addressing Cognitive Domain: Attitude toward Insecurity

How do students know that a decision is right for them? On what do they base their confidence in their choices?

“To make a good choice about a career, I think that_________”

<table>
<thead>
<tr>
<th>Initial</th>
<th>Crossroads</th>
<th>Early Self-authorship</th>
</tr>
</thead>
<tbody>
<tr>
<td>“experts are in the best position to advise me about a good choice”</td>
<td>“it is largely a matter of personal opinion”</td>
<td>it is not a matter of facts or judgment, but a match between my values, interests, and skills and those of a job.”</td>
</tr>
</tbody>
</table>

This quantitative measure was incorporated into an otherwise qualitative study because research demonstrates not only its validity and reliability in assessing progress through the stages and domains of epistemological development (Creamer, 2010; Creamer, Baxter Magolda, and Yue, 2009; Yue, Wolfe, & Creamer, 2009) but also that deeper understandings of epistemological development can arise from analyzing contradictory responses produced by mixed methods (Pizzolato, 2007; Laughlin & Creamer, 2007; Baxter Magolda, 2007).
Semi-structured Interviews

Following the protocol of Pizzolato (2003), the researcher conducted a sixty-to-ninety-minute audiotaped interview with each participant. Personal interviews about significant life experiences are the most commonly used assessments of levels of critical thinking and the experiences that have led to them (Perry, 1970; Kitchener & King, 1994; 2004; Baxter-Magolda, 1992; 2001; 2004; 2007; Laughlin & Creamer, 2007).

1. Assessing self-authored reasoning. First, participants were asked to describe three important decisions they had made before coming to college in order to provide a rich contexts for assessing self-authored reasoning (Baxter-Magolda, 1992; 2001; 2004; Baxter Magolda & King, 2007; Laughlin & Creamer, 2007; Pizzolato, 2003; 2004; 2005a; 2005b; 2007).

2. Key indicators of self-authored reasoning. Follow-up questions such as “Whom did you talk with about that decision?” allowed the researcher to assess participants’ willingness to consider multiple perspectives and contradictory viewpoints, their reliance on significant relationships, and their ability to reflect on their actions, all key indicators of self-authored reasoning (Kegan, 1994; Pizzolato, personal communication, 2010; Laughlin & Creamer, 2005). A complete list of follow-up questions for each prompt can be found in the appendix.

3. Growth over time. Then, to explore their current levels of reasoning and how their thinking skills had changed over time, participants were asked to describe a significant experience since coming to college, using the same follow-up prompts as the
first experience so that differences in their responses could be noted (Pizzolato, personal communication, 2010).

4. Familial and cultural influences. Finally, to explore the impact of family and culture on participants’ epistemological development, participants were asked which ethnic group they most closely identified with, what their culture meant to them, how their families made decisions and the extent to which they were involved in those decisions. These questions were designed to give a clearer picture of how self-authorship manifests itself across cultures and help prevent Western cultural differences from interfering with interpretation of the data (Pizzolato, personal communication, 2010).

Both the interviews and the survey address the main research question by illustrating the extent to which seven Southeast Asian, and East African community college students who immigrated to the US during or after high school use an internal set of beliefs and values to guide decisions and respond to challenges. The interview prompts address sub-questions A and B by revealing aspects of epistemological development they possess in each domain and the life experiences that have prompted them to define their own goals and values. The surveys shed further light on Subquestion A, the levels of epistemological development students possess, through questions tailored to each domain and stage of self-authorship. In the end, the triangulation of data sources and the process of resolving conflicts between the quantitative Career Decision-Making Survey and the qualitative interviews allow for a deeper understanding of self-authorship among immigrants (Yin, 2009).
Conclusion

This chapter described the methodology of a mixed methods exploration of the extent to which seven Southeast Asian and East African immigrant students between the ages of nineteen and thirty-one use internal systems of beliefs and values to guide their decisions and responses to challenges, the levels of critical thinking they demonstrate, and the life experiences that have led to their current levels of thinking. The philosophical underpinnings of the methodology were discussed along with current trends in the assessment of self-authorship and the need for more mixed methods investigations of epistemological development. Next, the methods and their implementation were outlined, from qualitative semi-structured interviews about significant life experiences to Laughlin and Creamer’s quantitative Career Decision-Making Survey. The next chapter will describe the codes that emerged from the interview data and how they were used to estimate participants’ dominant levels of epistemological development and to classify experiences that sparked dissatisfaction with previous levels of thinking and urged them to embrace new assumptions. It will also explain how discrepancies between quantitative and qualitative data were resolved and how these discrepancies contribute to a deeper understanding of self-authorship among immigrant college students.
CHAPTER 4: RESULTS AND DISCUSSION

This chapter presents the results of the semi-structured interviews and Career Decision-Making Surveys and the answers they posed to the question:

To what extent do seven Asian and East African immigrant community college students between the ages of nineteen and thirty-one demonstrate self-authorship, the use of an internal system of beliefs and values to guide their learning, decisions, and relationships, and how did they arrive at this stage of development?

This question is answered by exploring two subquestions:

a. Which aspects of epistemological development do these students demonstrate in which domains?

b. What types of pivotal pre-collegiate life experiences have created dissatisfaction with previous ways of making meaning and led to their current levels of epistemology?

Interview Data

Coding Scheme

Constructivist grounded theory was used to code the dominant themes that emerged from the interviews (Charmaz, 2000; Baxter Magolda, 2001; 2004; Pizzolato, 2003; 2004; 2005a). Interviews were transcribed verbatim and coded line by line as data was collected, allowing the themes present in the data to emerge naturally (Baxter
Magolda, 2004). In the initial coding stage, the themes that emerged from the data were organized and compared according to the interview question answered, highlighting the similarities and differences between respondents’ answers. Codes were altered as needed in order to account for new data and identify areas where further data collection was necessary (Creswell & Plano Clark, 2007; Boyatzis, 1998).

One code that emerged from the data was Attitude toward Competence, which participants addressed as they answered questions about whom they had talked with about an important decision, why they had chosen to talk with these people, whose advice they had considered most carefully, and why they had preferred that person’s advice. Through constant comparative analysis, data from different participants, from the same participant at different times, and from different events or categories was compared (Charmaz, 2000; Creswell, 2009; Glaser & Strauss, 1967; Boyatzis, 1998; Pizzolato, 2003; 2004; 2005a).

After identifying the codes emerging naturally from the data, the researcher compiled codes from the literature for evaluating self-authorship. Previous researchers had developed rubrics for evaluating self-authorship in interviews (King et al, 2009; Baxter Magolda and King, 2005). These rubrics integrated previous research on epistemological and intercultural development among Caucasian students and among African-American and Latino students, who have been shown to follow developmental trajectories similar to those of Caucasian students (Drago-Severson, 2004; Torres & Hernandez, 2007; Perry; 1970; Belinky et al, 1986; Bennett, 1993; Fischer, 1980; Kegan,
All of these integrated rubrics from the literature were already divided into the three domains of cognitive, intrapersonal, and interpersonal. Within each domain of development, characteristics had been sorted into three overarching stages: Initial, in which students primarily relied on external sources to help them make meaning of their experiences, Intermediate, in which they used a “mixture of external and internal sources,” and Mature, in which they depended primarily on internal sources to define and interpret their lives (King et al, 2009, p. 109). One such rubric describes a knower at an initial level in the cognitive domain as one who “assumes knowledge is certain; categorizes knowledge claims as right or wrong; resists challenges to own beliefs; views other perspectives as wrong” (King et al, 2009, p. 110). At the intermediate stage cognitively, a knower “has evolving awareness and acceptance of uncertainty and multiple perspectives” and “shifts from accepting authority’s knowledge claims to personal processes for adopting knowledge claims.” Finally, a cognitively mature individual “shifts perspectives and behaviors consciously, uses this as a basis for understanding alternative worldviews,” and “uses multiple frames of reference, grounded in appropriate evidence” (King et al, 2009, p. 110).

More focused coding of these rubrics identified the benchmarks of each domain and stage of development. These were determined because, “Coding self-authorship interviews requires identifying meaningful units of information, labeling those units to convey their essence in terms of meaning making, and sorting the labeled units into
categories that portray the key themes of the interviews” (Baxter Magolda & King, 2007, p. 504). The compiled rubrics from the literature were coded for themes that were present across each stage of development in a domain and seemed to distinguish one stage from another. Within the cognitive domain, for example, one prominent benchmark appeared to be Attitude toward Multiple Perspectives, as each new stage of development initiated changes in this category. At the initial stage, knowers viewed other perspectives as wrong and were unwilling to consider them (King et al, 2009). At the intermediate stage, a new understanding of uncertainty made learners more willing to consider multiple perspectives and eventually develop criteria for evaluating them (King et al, 2009). By the mature stage, learners were able to use multiple perspectives to understand different views and use appropriate evidence to evaluate each one (King et al, 2009).

Some codes from the existing rubrics, such as Attitude toward Multiple Perspectives and Attitude toward Competence, earned their way into the analysis because they fit the data and arose naturally from participants’ stories. Other codes were modified to represent more completely the themes of participants’ narratives. In the literature, for example, students at the initial level in the Intrapersonal benchmark of Attitude toward Obstacles were characterized by “surrender,” giving up in the presence of difficulty, while those at the intermediate level experienced “tension,” internal conflict caused by external influences. Finally, those who reached maturity in this benchmark displayed “accommodation,” the ability to work around obstacles, and “persistence” through them to achieve their goals (Pizzolato, 2007).
While the participants who reached maturity in this benchmark displayed the same characteristics as students in previous research, the development of persistence among these students was more complex and required additional codes at the initial and intermediate stages of development. At the initial level, one student did not recognize any obstacles toward the fulfillment of his goals thus far. Obstacles were coded as “unacknowledged” for this participant. In addition, those who surrendered to obstacles at this stage displayed two characteristics: “avoidance,” in which they tried to flee from difficulty because they could not cope with it, or “fatalism,” in which they gave up because they believed their plans were not meant to happen and could not succeed. At the intermediate level, students who experienced tension from external influences responded in two ways: either with “postponement,” putting their plans on hold because of difficulties, or with “formulas” that allowed them to resolve disequilibrium temporarily so that they could continue pursuing their goals. These codes were added to the scheme in order to ensure that the themes from participants’ narratives were represented thoroughly and faithfully.

Combining the codes from the literature with the codes that were added to fit the data yielded the following benchmarks of epistemological development (Torres & Hernandez, 2007; Drago-Severson, 2004; King & Kitchener, 2004; Baxter Magolda & King, 2005; King et al, 2009; Baxter Magolda, 2001; Kegan, 1982; 1994; Love & Guthrie, 1999). These benchmarks are summarized in Table 4-1.
Table 4-1. Benchmarks from the Literature

<table>
<thead>
<tr>
<th>Cognitive</th>
<th>Intrapersonal</th>
<th>Interpersonal</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Attitude toward Competence</td>
<td>• Attitude toward Dissension</td>
<td>• Attitude toward Relationships</td>
</tr>
<tr>
<td>• Attitude toward Multiple Perspectives</td>
<td>• Attitude toward Obstacles</td>
<td>• Attitude toward Mutuality</td>
</tr>
<tr>
<td>• Attitude toward Authority</td>
<td>• Attitude toward Cultural Identity</td>
<td>• Attitude toward Conflict</td>
</tr>
<tr>
<td>• Attitude toward Insecurity</td>
<td></td>
<td>• Attitude toward Advocacy</td>
</tr>
<tr>
<td>• Attitude toward Morality</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

After the codes from the literature were compiled and benchmarks in each domain were determined, each interview transcript was coded again using these codes from the literature in order to verify that these codes fit the experiences of the participants. By and large, data fitting these codes were present in the narratives of every participant. For example, in the cognitive domain, all participants discussed their Attitude toward Competence, or their criteria for selecting advisors and deciding which advisors to trust most. They also highlighted their Attitude toward Multiple Perspectives when they described seeking out and weighing multiple perspectives in a decision. In the intrapersonal realm, they all talked at length about their Attitude toward Cultural Identity as they described choosing which values from their native cultures and American culture to make part of their lives. Interpersonally, all of them described their Attitude toward
Advocacy for others, especially those in their culture. Therefore, the codes from the literature were judged to have earned their way into the analysis because they fit the data.

Once the codes from the literature were evaluated, memos were written describing the levels of thinking participants seemed to be demonstrating in each benchmark of a domain, how their answers compared with those of other participants, and how their responses in one benchmark compared with their responses in other benchmarks of a domain. For example, the following memo analyzed Ifrah’s Attitude toward Mutuality, compared it with Pele’s response, and compared it with Ifrah’s response to another interpersonal benchmark, Attitude toward Conflict:

Ifrah’s understanding of relationships shows that she has not yet achieved mutuality, even though she claims to value it. While she says that a good marriage is based on mutual respect, she sees the absence of conflict as evidence of this respect. She says a marriage is happy when “you both agree on the same thing, no fighting, no arguing. Just make him happy and he will make you happy.” Similar to Pele’s mantra to help friends so they will help him, this approach is not rooted in true mutuality, seeking to understand each other’s perspective and work through conflict to a solution that honors the viewpoints and goals of both partners. In fact, Ifrah and her husband do not resolve conflict on their own. When they disagree about something, they rely on their family to tell them which idea is best, and they both submit to the family’s decision. Consequently, they have not developed their own criteria as a couple for weighing
options and resolving conflict together. This reliance on the authority of significant others is consistent with external formulas (King et al, 2009).

The process of writing memos like this one naturally invited an initial analysis of participants’ epistemological levels. However, these initial analyses were held loosely and subject to re-evaluation in light of new evidence. For instance, Pilar was first ranked at an initial level in Attitude toward Authority because she unquestioningly submitted to her father’s advice to quit school after her marriage. Later in life, however, she displayed a higher level of thinking in this benchmark when she rejected her mother-in-law’s advice to quit school because she understood how much she personally valued getting an education. This revealed that Pilar was maturing in this benchmark as she learned to weigh the advice of others against her personal beliefs and values. Quite often, disparities emerged within a domain. In the cognitive domain, for example, Fadumo used more sophisticated criteria to weigh moral decisions than she used to weigh academic ones. While she considered her personal values in the moral decision to advocate for those in her culture, she chose college classes based on the consensus of her peers that the classes were best for her.

When participants described an experience that changed their thinking by allowing them to advance in any benchmark of a domain, this experience was labeled as developmentally effective and coded for the ways in which it had changed participants’ thinking (King et al, 2009). For example, Pilar described how being diagnosed with cancer shocked her because she had thought she was doing everything right to stay healthy and that she was a good person who had always obeyed her parents in childhood.
She explained that the diagnosis showed her that life was uncertain and that bad things could happen to good people. This experience was coded as developmentally effective because it caused Pilar to challenge external formulas of meritocracy even as it presented the reality of uncertainty, leading her to acknowledge that the uncertainty of life had caused her formulas to fail.

Next, the memos based on the narratives of each participant were compared in each domain and benchmark through constant comparative analysis of how the codes applied between participants and to the same participant at different times. During the process of comparison, levels of thinking within each benchmark were ranked and described in order. Within the benchmark of Attitude toward Dissension, for example, a student who refused to consider dissenting views was described first, followed by one who considered the view and then dismissed it based on the mantra that “everyone has his own opinion.” Those who carefully weighed the dissenting view based on personal values and criteria were ranked highest and described last. It should be noted, however, that participants’ ranking in each benchmark depended on the level of thinking they demonstrated in that benchmark, not the level of thinking they had previously shown in that domain. For this reason, participants are not always described in the same order. In the cognitive domain, for example, a participant could rank highly in Attitude toward Multiple Perspectives but lower in Attitude toward Competence.

Finally, the interview data were compared with the results of the Career Decision-Making Survey, discrepancies between the two instruments were noted and described, and conclusions were drawn to account for the contradictions.
Interview Results

This section explores the aspects of epistemological development present in the interview data, as assessed with rubrics compiled from the literature and judged to fit the data (Torres & Hernandez, 2007). Characteristics of participants’ ways of knowing at each stage of development in a benchmark are expressed in generalizations, which are numbered, labeled, and exemplified below. Participants are referred to by the pseudonyms they chose. While only one example of each generalization is explained below, the number of examples present in the data for each one is expressed as n. Because participants sometimes exhibited different levels of reasoning in different contexts or described multiple examples of the same level of reasoning, the total number of instances in the data is often greater than the number of participants. Additional examples of reasoning within each generalization can be found in Appendix E.

Cognitive Domain

The cognitive domain encompasses participants’ answers to the question, “How do I know?” (Baxter Magolda, 2001) This domain includes five benchmarks: Attitude toward Competence, Attitude toward Multiple Perspectives, Attitude toward Authority, Attitude toward Insecurity, and Attitude toward Morality.

1. Attitude toward competence. This benchmark focuses on how participants chose their advisors and judged them as competent to address their decisions. It includes six generalizations that can be seen in Table 4-2.
Table 4-2. Cognitive Benchmark 1: Attitude toward Competence, Generalizations

<table>
<thead>
<tr>
<th>Initial (n=6)</th>
<th>Intermediate (n=8)</th>
<th>Early Mature (n=2)</th>
</tr>
</thead>
</table>
| 1. Inner Circle 1  
Advisors from close circle of friends and relatives | 3. Parental Preference 2  
Attributes of parents or closeness of relationship was equal to or more important than parents’ level of experience | 5. Outer Circle  
Weighed advice from outer circle equally |
| 2. Parental Preference 1  
Parental advice prized because of cultural formulas of respect for parents | 4. Inner Circle 2  
Preferred the advice of other friends or relatives if parents did not have relevant experience | 6. Contextual Criteria  
Evaluated advisors based on competencies needed to address the situation |

Initial Stage:

Generalization 1: Inner Circle 1. Participants preferred advisors within close circle of friends and relatives, especially when they had previous experience making the same decision or had cultural capital.

Participants at the initial level overwhelmingly preferred advisors who were within their inner circle of close friends and relatives. However, they did tend to consult friends and relatives with previous experience making the same decision, understanding of the educational process, and experience with American culture. Although previous research with Latino students found that learners relying on external formulas tend to see their parents and close friends as authorities based on the closeness of the relationship, participants at both initial and intermediate levels tended to rely on close friends and relatives in this benchmark (Torres & Hernandez, 2007).
Example:

In her decision to go to high school, Ifrah chose her brother as a primary advisor because he had attended an American high school and had lived in the US longer than anyone else in her family. He provided the cultural capital she needed to go to college, meeting with her and her high school guidance counselor to help her apply for college and financial aid.

Generalization 2: Parental Preference. Participants prized parental advice most because of cultural formulas elevating the parents’ role and wisdom and necessitating respect for parents.

The data suggests that for these students from collectivist cultures, cultural formulas of respect for elders factored into participants’ decisions to value the advice of parents or parents-in-law most highly; these formulas may encourage them to rely on external formulas for choosing advisors.

Example:

Ifrah explained that she had consulted her mother in her college choice because “we have to respect our parents. Everything they say we have to agree, no matter what. Our culture and religion both agree on that.” She felt a debt of gratitude and sense of duty toward her mother because of her mother’s investment in her maturity and identity. She said, “I grew up in a rough life, and she’s the one who made me this person, so I have to agree with her.” This sense of duty and cultural responsibility was so strong that Ifrah was willing to give up college if her mother said she needed to work to support her relatives. She was even willing to change her choice of a husband if her mother
disapproved of him. For Ifrah, the approval of her mother and brothers is the dominant factor in her decisions, and if they disagree with her choice, she will give it up out of respect for them, as her culture and religion require. This reliance on external formulas in decision-making suggests that she is still operating at the initial level of cognitive development (King et al, 2009).

Intermediate

Generalization 3: Parental Preference 2. Attributes of parents or closeness of relationship were equal to or more important than parents’ level of experience.

Even though students at the intermediate level consulted other friends and relatives with experience making the same decisions, they still tended to weigh the advice of their parents and close friends most heavily in their decision regardless of their level of experience. This seemed to be because they valued the length and closeness of their prior relationship, their demonstrated personal values, and their history of giving good advice more than their level of experience. This choice of advisors based on personal and relational characteristics rather than demonstrated competency is consistent with intermediate ways of knowing (Drago-Severson, 2004).

Example:

Pele took his mother’s advice about college most seriously even though she had never been to college because he trusted her wisdom, saw that she valued education, and felt that she cared about him more than anyone else did.
Generalization 4: Inner Circle 2. Preferred the advice of other relatives if parents did not have relevant experience, but still prioritized the closeness of the relationship and the personal attributes of the advisor over the advisor’s competency to address the decision.

While participants at the intermediate level could recognize that their parents sometimes lacked the expertise to advise them, they still tended to consult other advisors within the inner circle of friends and relatives and to judge the nature of their prior relationship with those advisors as equal to or more important than their level of experience.

Example:

When deciding to come to the United States as an au pair and later, to continue her college education in America, Bee consulted her close friend who was already living in the US and a website of fellow Thai immigrants who had made both of these choices. Overall, however, she weighed her friend’s advice most heavily because she trusted her, knew she was “nice,” and had benefited from her advice in the past. Even though many of the Asian immigrants on the website had just as much experience as au pairs and students in American colleges, Bee did not weigh their opinions as heavily as her friend’s because they were strangers, and she did not trust them. This choice of advisors based on personal qualities and the nature and length of the relationship is characteristic of students reasoning at intermediate levels of cognitive development (Drago-Severson, 2004).

Mature

Generalization 5: Outer Circle. Willing to look outside of inner circle for advice
In this study, participants approaching self-authorship were willing to seek out advisors who possessed the needed experience even if they had no prior relationship with them. They did not insist that their advisors be part of their inner circle of friends and relatives.

Example:

When Melissa’s mother was diagnosed with a brain tumor and doctors chose not to remove it, Melissa turned to advisors outside of the inner circle. She spent a year observing nurses at the hospital where she worked, watching for nurses who questioned doctors’ diagnoses and were later shown to be right. Knowing that “doctors make a mistake sometimes,” she did not want a nurse who “really just followed the doctor.” While she, like Bee, looked for advisors who were “nice,” it was most important to her that they demonstrate their willingness to question authority and their ability to accurately diagnose a patient. When a nurse had earned her trust in this way, she asked him or her if a brain tumor like her mother’s should be removed. She stated that this process of evaluating nurses had made her better at identifying people she could trust.

Generalization 6: Contextual Criteria. Evaluated advisors based on competencies needed to address the situation

One characteristic of mature cognitive development is the ability to suspend judgment while evaluating potential advisors with criteria based on evidence from a variety of sources (King & Kitchener, 2004). Participants approaching maturity did not allow themselves to be swayed by their closeness to an advisor or the length of their prior
relationship. They had developed personal criteria for choosing advisors based on the experiences and expertise needed in different decision-making contexts.

Example:

In her decision to go to college in the United States, Melissa valued her sister’s advice most because her sister had attended an American college, even though her relationship with her sister began when she moved to the US as an adult, and she barely knew her at the time she was choosing a college. This demonstrated the mature ability to evaluate advisors based on criteria including their competency to address the situation at hand (King & Kitchener, 2004).

2. Cognitive benchmark 2. Attitude toward multiple perspectives. This benchmark explores participants’ reasons for seeking out multiple perspectives and asking for advice in decision-making. It contains four generalizations, which are described in Table 4-3:

<table>
<thead>
<tr>
<th>Initial (n=3)</th>
<th>Intermediate (n=5)</th>
<th>Early Mature (n=1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valued multiple perspectives as tools to accomplish academic and professional goals</td>
<td>Need for approval to have confidence in decisions</td>
<td>Wanted to learn from multiple perspectives and apply them to new situations</td>
</tr>
<tr>
<td></td>
<td>3. Inconsistency</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Began to weigh multiple perspectives based on goals, but sometimes reverted to lower views of them</td>
<td></td>
</tr>
</tbody>
</table>
Initial

Generalization 1: Tools. Valued multiple perspectives as tools to help them accomplish academic and professional goals

In their decision-making processes, all participants described seeking multiple perspectives after making an initial determination about which choice was best for them. They possessed at least enough understanding of themselves to identify what they personally wanted, and their willingness to seek multiple perspectives is key to the development of cognitive maturity (Baxter Magolda, 2001). However, their attitudes toward multiple perspectives and reasons for seeking them varied widely according to their level of cognitive development. Reasoning at the initial level, participants valued multiple perspectives not for their inherent worth, but as tools to accomplish academic or professional goals (Drago-Severson, 2004).

Example:

Warafa stated that a benefit of college friendships was “sharing ideas.” He then clarified that he meant “sharing ideas about assignments, where you understand and don’t understand, so you can help each other.” He explains, “If you are alone, you cannot do as well, because if a person knows better than you, you can ask him. If you know more than him, you can help him, so helping each other you will gain a lot of knowledge and you can know the best things.” Warafa sought multiple perspectives so that he could acquire more knowledge and get better grades in his classes.
Intermediate

Generalization 2: Approval. Sought multiple perspectives out of a need for approval in order to have confidence in decisions

At the intermediate level, the need for others’ approval dominates the decision-making process, and knowers still seek external validation for their choices (Baxter Magolda, 2001).

Example:

Ifrah said, “If you make your decision by yourself, sometimes you don’t make a good decision, so I usually talk to people, get some opinions. I know what I want, but I have to ask them if it’s fine, ask for their opinion. If my mom and my brothers say it’s good, then I have some confidence. If everyone says that, then I can go for it. But if they say, “That’s bad,” then I have to ask another one. It’s gonna be confusing. So I have to have some approval.”

While Warafa sought multiple perspectives as tools to accomplish his goals, Ifrah sought approval for her goals and opinions in order to have confidence in them. This emphasis on others’ approval and lack of confidence in her personal perspective indicate that she may be operating at an intermediate level of development (Drago-Severson, 2007).

Generalization 3: Inconsistency. Began to weigh multiple perspectives based on personal goals and values, but sometimes displayed lower views of multiple perspectives

Toward the end of the intermediate stage, participants started to understand that multiple perspectives held inherent worth. However, they still sometimes demonstrated
views characteristic of initial levels of development, such as seeing multiple perspectives as tools to obtain good grades (Drago-Severson, 2004).

Example:

Fadumo and Melissa both noted that while other students skipped class when there was a discussion, thinking that they would not miss anything, they never wanted to miss a discussion because they did not want to miss something that would be on a test or potentially useful in a paper. This narrow focus on discussions as tools for doing well on assignments evinces a preoccupation with grades characteristic of an initial level of development and may indicate that in the academic realm, they do not yet value multiple perspectives for their own sake or understand the worth of interacting with the views of their classmates. Even though Melissa valued the inherent worth of the perspectives of nurses and doctors she respected, she may not weigh the perspectives of her peers and classmates as much as those of her colleagues at the hospital.

Mature

Generalization 4: Growth and Transfer. Wanted to learn from multiple perspectives and apply them to new situations

In the academic realm, only one participant valued multiple perspectives for something beyond getting better grades on assignments and desired to interact meaningfully with peers whose perspectives differed from her own. Her understanding of the inherent worth of multiple perspectives in her life both within and beyond the classroom indicated that she was moving toward maturity in this benchmark of the cognitive domain (Drago-Severson, 2004).
Example:

Pilar said class discussions were important because, “It’s nice to share opinions. It’s not a debate, just exchanging opinions in a different point of view, the way they’re thinking and I’m thinking. I think it’s kinda nice because maybe I could see things differently, and I’ll learn from it and I know that maybe someday I might be in a situation that I might need that kind of thinking. It helps me prepare for if something like that happens in my own life.”

_Cognitive Benchmark 3. Attitude toward Authority._ This benchmark addresses how participants respond to the views of authority figures, from established experts to older family members. There are three generalizations as seen in Table 4-4:

Table 4-4. Cognitive Benchmark 3. Attitude toward Authority, Generalizations

<table>
<thead>
<tr>
<th>Initial (n=3)</th>
<th>Intermediate (n=2)</th>
<th>Early Mature (n=2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Blind Submission</td>
<td>2. Inconsistency</td>
<td>3 Questioning</td>
</tr>
<tr>
<td>Accepted decisions of authorities without questioning or even understanding them</td>
<td>Need for approval sometimes overshadowed personal authority</td>
<td>Believed authorities were fallible and should be questioned</td>
</tr>
</tbody>
</table>

Initial:

Generalization 1: Blind Submission. Accepted decisions of authorities without questioning or even understanding them

At the initial level of cognitive development, students placed so much trust in authority that they did not even seek rationales for the decisions made for them by their
elders, whom they believed could be trusted always to make the right decisions for them (Torres & Hernandez, 2007).

Example:

Warafa, Pele and Ifrah accepted the decisions of their parental authorities without question, trusting that because they had been making the family decisions for so long, they knew what they were doing and could be relied on completely to make the choices for their family’s lives.

Intermediate Generalization 2: Inconsistency. Need for approval sometimes overshadowed sense of personal authority

At the intermediate stage, students were beginning to trust their personal authority in decision-making. However, they sometimes lost confidence and looked to other authorities for approval.

Example:

Bee acted on her sense of personal goals and values in her decision to leave home for college in her country’s capital city and to come to the United States as an au pair, but still required the interviewer’s assurance that her evaluation of a moral decision was valid. When describing how offended she was when a student used what she felt was a disrespectful tone with a teacher, she said, “That was disrespectful, right? Do you think it was?” She lost confidence in her ability to evaluate a situation because of her need for approval.
Mature

Generalization 3: Questioning. Believed authorities were fallible and should be questioned

Perhaps because of the dominance of family in the collectivist cultures of these participants, family decision-making styles seemed to influence participants’ ability to reach maturity in this benchmark. Familial elders either promoted or discouraged a mature understanding that even expert opinions must be critically evaluated.

Example:

While most of participants’ families operated in a hierarchy in which the decisions of the oldest relative could not be questioned, Pilar’s father allowed even his youngest children to have an equal say in family decisions. Pilar explained the difference this way: “Some of my friends, when their dad speaks, that’s it. It’s his word, his word. But ours, no, it doesn’t have to be his word. He would say what he thinks or feels, but there might be other good options there. Children have their own wisdom, and they might see something the adults miss. That’s why he asks.”

Just as her father had done, Pilar encouraged her children to respect the decision-making ability of people regardless of age. She told them, “Just because I’m a mom doesn’t mean I’m always right, so you have to tell me what you think so we can decide what is right.” In this view of respect, she differs from all other participants. Perhaps because of the view she saw modeled as a child, Pilar had a mature view of the role of elders and authorities as only one of many sources of information in decision-making (King et al, 2009). She invited her children into the decision process and encouraged
them to question authority just as her father had done with her and her siblings. Her father’s decision-making style and attitude toward authority paved the way for her development at the cognitive level.

Cognitive Benchmark 4. *Attitude toward Insecurity.* This benchmark addresses participants’ source of security in their decisions and how much they are willing to embrace insecurity to achieve their goals. At the initial level, participants found security in their decisions because they were based upon formulas for success, promises of personal benefit, or the approval of family members. At higher levels of development, they were willing to embrace greater degrees of insecurity, independence, and altruism. There are nine generalizations as shown in Table 4-5.
Table 4-5. Cognitive Benchmark 4: Attitude toward Insecurity, Generalizations

<table>
<thead>
<tr>
<th>Initial (n=5)</th>
<th>Intermediate (n=6)</th>
<th>Early Mature (n=5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. False Security Made decisions out of a desire for security and did not question them</td>
<td>4. Openness to change Willing to alter their plans in light of new experiences</td>
<td>7. Openness to insecurity Willing to leave familiar surroundings or traditions to pursue their goals</td>
</tr>
<tr>
<td>2. Personal Benefits Chose careers based on personal benefits rather than chances to help others</td>
<td>5. Inner circle altruism Set career goals based on a desire to help family members</td>
<td>8. Outer circle altruism Made career decisions based on desire to help people in wider world</td>
</tr>
<tr>
<td>3. Familial Dominance Made academic decisions based on familial approval of them. Had not yet developed personal criteria for evaluating choices</td>
<td>6. Familial Tension Become aware of the tension between familial and personal expectations</td>
<td>9. Familial Balance Learned to manage familial influences</td>
</tr>
</tbody>
</table>

Initial

Generalization 1: False Security. Made decisions out of a desire for security and did not question them. Saw every decision as having only one right choice.

Because students at the initial level perceive every decision as having one right choice, they do not acknowledge any conflict in making decisions. They are so certain of their choices that they are unwilling to change them in light of new evidence (King & Kitchener, 2004).

Example:

Warafa reasons, “When a person is starting a certain thing, he has to have the main thing he wants to do...that’s all. I have not made any difficult decisions since
coming to college because I came to college only to have my career, and that’s what I wanted to do. Once I decided on my career, I didn’t have to worry about anything else.” He speaks often of “knowing what is best” and not questioning his decisions once he has made up his mind. For example, he says that he is “100% sure” of his career choice “because the reason why I came to college is only to have a certain career. It’s not to change my career choice.” Further, he states that he has no concerns about this career choice because “I know what is important and what is good to me. It is good to me because I know my decision, as I made before, and it has a lot of advantages, as I said.”

Generalization 2: Personal Benefits. Chose careers based on personal benefits rather than chances to help others

At the initial level, students focus on the personal benefits of career choices because they may not yet understand their responsibilities to a wider world (King et al, 2009).

Example:

Warafa described three criteria that were important to him in his career choice: acquiring knowledge and skills, making money, and saving lives. He later said that to him, the most important advantage of being a doctor was the chance to acquire new knowledge and skills. His prioritization of the personal benefits of knowledge acquisition over saving lives suggests that he is still at an initial level of development in this benchmark.

Generalization 3: Familial Dominance. Made academic decisions based on familial approval of them. Had not yet developed personal criteria for evaluating choices
At the initial level, participants relied heavily on the external formulas provided by familial and cultural expectations because they lacked personal criteria for evaluating choices (King et al, 2009).

Example:

Ifrah said that while she knew she wanted to attend college right after high school, she also knew that she had to marry before starting school. She said, “In my culture, you have to be married,” and “In my family, it’s not okay for me to stay single, because in my culture, if you are older than eighteen, you are too old to get married. My family is not okay for me to choose a career over marriage. They said you better get married, but we’re not gonna choose your husband. You have freedom to choose; you can choose whoever you want, but you better choose your husband now.”

Ifrah did not consider remaining single or finishing college before marriage because her culture and family disapproved of these choices. While her family did allow her to finish high school and to choose the man she wanted to marry, they insisted that she marry before starting college. Their support of her decision to attend college depended on her husband’s consent and her ability to balance school with marital responsibilities of cooking and cleaning in order to prevent conflict with her husband. Fortunately, her husband supported her education, allowing her to go to college with the approval of all the significant others in her life.

Intermediate

Generalization 4: Openness to change. Willing to alter their plans in light of new experiences
Participants at an intermediate level of development were not dogmatic about their choices, but open to changing them in light of new developments (King & Kitchener, 2004).

Example:

Unlike Warafa, Pele stated that he was only 70% sure of his career choice and would be willing to change it if he did not like his accounting classes. Similarly, Melissa was willing to change her plan of transferring to a four-year university if she could not handle her coursework at the community college.

Generalization 5: Inner circle altruism. Set goals based on a desire to help family members

Participants at the intermediate level were beginning to consider their responsibilities to others and make decisions based on altruistic reasons that transcended personal goals (Drago-Severson, 2004). However, these participants from collectivist cultures were still primarily concerned with helping those in their inner circle of friends and relatives rather than those in the wider world.

Example:

Fadumo said she was hoping to find a job right after graduation that was secure, enjoyable, gave her the chance to help people, and paid well. She wanted to use the higher pay to help her family “financially, physically, or with depression” by being able to pay for professional help for them if they needed it.

Generalization 6. Familial Tension. Become aware of the tension between familial and personal expectations
Because participants at the intermediate level were beginning to acknowledge and shape their own beliefs and values, they also began to perceive a tension between what their family members wanted for them and what they personally wanted. While they considered the views of their family, they also began to recognize personal expectations as distinct from familial ones and give these personal expectations greater weight in their decisions (Torres & Hernandez, 2007).

Example:

In his decision to major in accounting, Pele encountered some resistance from his mother, who felt that health care was the most noble and necessary profession. While he did consider his mother’s advice because of the salary available in health care, he ultimately rejected it because he knew that he did not like science or dealing with blood, and he reasoned that his friends who were accountants would be better able to advise him in this career choice than his mother would. Pele’s willingness to at least consider dissenting perspectives indicates that he has reached an intermediate level of development in this benchmark. His determination that a health care career was not right for him because of his interests and abilities may also indicate that he is beginning to develop his sense of identity and make choices based upon it.

Mature

Generalization 7: Openness to insecurity. Willing to leave familiar surroundings or traditions to pursue their goals

At a mature level, participants are able to define the values that matter to them, set goals based on those values, and take action to achieve their goals even if that action
requires them to leave familiar surroundings and systems of support. They are so confident in their priorities that they are willing to embrace insecurity to act on them.

Example:

Melissa demonstrated a willingness to leave everything familiar in order to accomplish her goals when she turned down her boyfriend’s marriage proposal and moved to the United States to get to know her immediate family. She said, “I just want to know my sister, my brothers, my parents. That was more important to me than marrying my boyfriend.” Raised by an aunt in Asia, she grew up with very little communication from her immediate family in the US, and she longed to get to know them before starting her own family.

However, after living with her mother and stepfather for two years and speaking only her native language, she chose to leave familiar surroundings again and live with her sister so she would be forced to speak English and improve enough to go to college. She saw her sister as a mentor in academics and American culture and had always hoped for a closer relationship with her. She realized that living with her sister would allow her to achieve her interpersonal and professional goals.

Generalization 8: Outer circle altruism. Made career decisions based on desire to help people in wider world

At the mature level, participants’ understanding of their responsibility to others extended beyond their inner circle of family and friends, and they made choices based on their desire to help those within and outside of their cultures (Drago-Severson, 2004).

Example:
After seeing her mother diagnosed with a brain tumor, Melissa resolved to become a nurse to help others like her. Her concern with helping those outside her own family demonstrates a mature level of development.

Generalization 9: Familial Balance. Learned to manage familial influences

Participants who reach self-authorship within collectivist cultures are able to act on their goals without being dominated by external opinions, even from their own families. Although they can never deny or ignore the influence of their families, they learn to respond to familial influences in ways that honor their personal identities (King et al, 2009; Torres & Hernandez, 2007).

Example:

Melissa was secure enough to act on her decision to move in with her sister and attend college even in the face of opposition from her parents, who wanted her to stay with them and help them with the family business. She understood that disappointing them in this area was necessary in order to accomplish the goals and priorities that mattered most to her.
5. **Cognitive Benchmark 5: Attitude toward Morality.** This benchmark refers to how participants judge a decision or action as right or wrong. There are six generalizations as seen in Table 4-6.

Table 4-6. Cognitive Benchmark 5: Attitude toward Morality, Generalizations

<table>
<thead>
<tr>
<th>Initial (n=3)</th>
<th>Intermediate (n=4)</th>
<th>Early Mature (n=4)</th>
</tr>
</thead>
</table>
| **1. Authority**  
Relied entirely on religious authorities to tell them right from wrong | **3. Effect on others**  
Felt responsible for others’ feelings and saw wrong decisions as those that hurt others (Drago-Severson, 2004) | **5. Goals and values**  
Made moral decisions based on personal values, understanding that choosing those values would sometimes cause others to be hurt |
| **2. Full confidence**  
Perceived no dissonance in moral decisions | **4. Crisis of confidence**  
Questioned their ability to judge anyone’s behavior as right or wrong | **6. Settled confidence**  
Had peace about decisions in the midst of uncertainty |

Initial

Generalization 1: Authority. Relied entirely on religious authorities to tell them right from wrong

At the initial level, participants’ understanding of morality depends entirely on external sources rather than beliefs and values they have personally weighed and considered (King & Kitchener, 2004).

Example:

Warafa stated that his understanding of right and wrong was based on the teaching of the Quaran and the sheiks who helped him understand it and that the beliefs of these authorities would never conflict.
Generalization 2: Full confidence. Perceived no dissonance in moral decisions

Because students at an initial level believe every decision is either right or wrong and rely on authorities to tell them what is right, they experience no confusion or questioning when making moral decisions (King & Kitchener, 2004).

Example:

Warafa stated that there has never been a time when he was unsure of the right thing to do because he “knows what is good and bad” to him, and his religion tells him what is right and wrong.

Intermediate

Generalization 3: Effect on Others. Felt responsible for others’ feelings and saw wrong decisions as those that made others feel bad

Participants at the intermediate level were so concerned with others’ approval that they judged a decision to be right or wrong based on how it made others feel. They assumed that right decisions were those that did not hurt anyone and felt guilty when others’ feelings were hurt (Drago-Severson, 2004).

Example:

Bee stated that she knew if a decision was right or wrong through seeing the effects of a decision on others. If another person “felt bad” because of a decision, then the action was wrong.

Generalization 4: Crisis of confidence. Used a relativistic philosophy that caused them to question their ability to judge anyone’s behavior as right or wrong
Students at an intermediate level of development favor multiplicity and use it to avoid committing to a position (Perry, 1970; King & Kitchener, 2004). Using the criteria of how a decision would make another person feel, they struggled to evaluate decisions with confidence, as they brought in multiplicity and found themselves with no basis to judge. This criterion did not give them a solid basis to form their own ethnical judgments, and the confusion created by trying to consider so many perspectives made them question their ability to make any judgment at all.

Example:

Bee demonstrated the necessary end of relying on others’ feelings about a decision to determine its rightness: a crisis of confidence in her ability to make moral decisions. She described hearing another student use what she felt was a disrespectful tone with a professor. Although she first thought the student’s behavior was wrong because she would be offended if someone used that tone with her, she then excused the student by saying, “Maybe she wouldn’t feel anything if someone else did that to her, so I shouldn’t judge that. I shouldn’t think it’s wrong, right?” She acknowledges that using this criteria, if the teacher was not offended, then the student did nothing wrong.

Bee went on to question her ability to make judgments about the actions of someone from another culture. She said, “So why I have to judge them if it’s right or wrong, because I’m still with my own culture?” Bringing in cultural relativism left her with no basis to judge the morality of an action.
Mature

Generalization 5: Goals and values. Made moral decisions based on personal values, understanding that choosing those values would sometimes cause others to be hurt.

Participants at a mature level understood that following personal values and priorities would sometimes cause others to be disappointed or hurt. However, they were able to recognize when others’ expectations were unreasonable or when a value was too important to them to ignore for someone else’s sake (King & Kitchener, 2004).

Example:

Melissa understood that pursuing her goals would require her to hurt her boyfriend in her native country by turning down his marriage proposal to come to the United States. Even though she loved him and did not want to hurt him, she knew that if she married him, she would never get to know her family in the United States or pursue her goals of finishing her education and becoming a nurse. She knew that doing these things was essential to her future happiness and that she had to disappoint him in order to achieve it.

Generalization 6: Settled confidence. Had peace about decisions in the midst of uncertainty.

The use of personally defined goals and values to judge the rightness of a decision is characteristic of a mature level of development (Baxter Magolda, 2001). Making decisions rooted in this personal belief system results in a sense of peace even in the midst of uncertainty or negative consequences arising from a decision.

Example:
Melissa experienced a high level of satisfaction with her decision to reject her boyfriend’s marriage proposal and come to America. She said, “I think I did make a good decision for that because me and my sister are very close; it’s more than I expected.” She was proud that she had been there for the birth of her sister’s baby and affirmed that the choice had been right for her. Her understanding of her goals and values and willingness to act on them shows intrapersonal and interpersonal maturity.

Intrapersonal Domain

The intrapersonal domain explores participants’ sense of identity and answers to the question, “Who am I?” especially their definition of personal goals and values. This sense of identity directly influences how they respond to people who are different from them, to views and cultures different from their own, and to obstacles that test their commitment to their goals and values. A strong sense of identity allows them to respond to difference and to obstacles without being threatened by them. The benchmarks in this domain include *Attitude toward Dissension, Attitude toward Obstacles,* and *Attitude toward Cultural Identity.*

1. *Attitude toward Dissension.* This benchmark explores how participants respond to contradictory or dissenting views that go against their personal opinion. It includes four generalizations as described in Table 4-7.
### 4-7. Intrapersonal Benchmark 1: Attitude toward Dissension, Generalizations

<table>
<thead>
<tr>
<th>Initial (n=2)</th>
<th>Intermediate (n=2)</th>
<th>Early Mature (n=3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rejection</td>
<td>2. Inconsistency</td>
<td>4. Engage and Persist</td>
</tr>
<tr>
<td>Rejected any advice that disagreed with what they had already decided to do</td>
<td>Alternately rejected, submitted to, and weighed dissenting views</td>
<td>Considered and addressed the objections of dissenters, but ultimately maintained a position grounded in personal beliefs and values</td>
</tr>
<tr>
<td></td>
<td>3. Engage and withdraw</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Addressed dissenters, then dismissed their view if they could not be won over</td>
<td></td>
</tr>
</tbody>
</table>

**Initial**

Generalization 1: Rejection. Rejected any advice that disagreed with what they had already decided to do.

Because students at the initial level see the world in black and white and do not yet understand the value of multiple perspectives, they tend to believe that their personal choices are the best ones and to dismiss the opinions of those who disagree with them (King et al, 2009).

Example:

Warafa believes advice is best for him if it is a “match to [his] idea” and insists, “If an idea requires me to change my idea, then I will not consider it. There has never been a time when I listened to someone who told me to do what I did not want to do.”

This emphasis on weighing decisions solely based on personal desire may have been shaped by the decision-making style used in his family. Before he was sixteen, he accepted the decisions of the elders in his family without question because “they always knew the reasons why before they made a decision.” When he reached sixteen, the age of
maturity in his culture, he was allowed to attend the family meetings in which everyone gave an opinion and the family voted. In these votes, the desire of the majority dominated, and any opinion disagreeing with that of the majority was not considered. Perhaps this is why Warafa stresses knowing what he wants and rejecting all contradictory opinions in order to single-mindedly pursue his goal. Even though Warafa is committed to achieving his goal, his outright rejection of any opinion different from his own provides further evidence that he is in the initial stage of cognitive development (King et al, 2009).

Generalization 2: Inconsistency. Alternately rejected, submitted to, and weighed dissenting views

At the intermediate level, participants were beginning to understand that they needed to consider even dissenting views in order to make a good decision (King et al, 2009). However, they still sometimes resorted to either outright rejection of or submission to views that went against their own opinions of what was best.

Example:

Fadumo demonstrated aspects of mature reasoning in her description of why she chose to become a nurse. She said that after receiving so much help from the government, social workers, and her family, she wanted “to help people and give back to the community.” This acknowledgement of her responsibility to work for the good of others can reflect a more mature level of interpersonal development (King et al, 2009.) However, Fadumo also said that in her decision to major in nursing, she consulted only her parents because they “knew more” than she did, and that she “ignored and did not
listen” to contrary advice, telling those who disagreed that she wanted to be a nurse and was “going to do it.” In this decision, Fadumo seemed to demonstrate less sophisticated ways of knowing, as she did not describe her thought process of weighing opposing views against her own values. Her inconsistency indicates an intermediate level of development (King et al, 2009).

Generalization 3: Engage and withdraw. Addressed dissenters, but then dismissed their views if they could not be won over

Participants at the intermediate level were at least willing to engage dissenters in conversation, listening to their reasoning and explaining to them the reasons for their own views. However, if this failed to persuade dissenters, they often dismissed their opinions and avoided consulting them in the future. Their need for approval caused them to shrink from consulting those who might disagree (Baxter Magolda, 2001).

Example:

In her choice to go to college, Ifrah encountered resistance from friends, who saw college as a waste of time that she could be using to work and help relatives in Africa. She addressed their objections by verifying that her older brothers would meet the needs of her family, and she assured them that her mother and brothers agreed with her decision. When they continued to disapprove, she concluded that the opinions of dissenting friends were not as important as those of her mother and brothers.

In this instance, Ifrah’s prioritization of advisors allowed her to resolve the disequilibrium caused by the disapproval of those outside her inner circle. However, this may not indicate self-authorship because, in choosing to weigh her mother and elder
brothers’ opinions most, she seemed to be following a cultural formula of respect for elders rather than aligning with a personally defined value system.

Later, during her career decision process, Ifrah avoided consulting the friends who had disagreed with her decision to go to college and only consulted those who had been supportive in the past. Unsure of how to handle negative reactions to her choices, she avoided them altogether. Still reliant on the approval of others, she avoids exposing herself to disapproval whenever possible. This discomfort with disagreement and need for approval suggests that she still relies on eternal formulas in the intrapersonal realm (Baxter Magolda, 2001).

Mature

Generalization 4: Engage and Persist. Considered and addressed the objections of dissenters, but ultimately maintained a position grounded in personal beliefs and values.

Individuals at higher levels of intrapersonal development have an internally grounded sense of beliefs, values, and identity that makes them willing to consider dissenting views, but not be dominated by them, especially when these dissenting views come from significant and trusted others (King et al, 2009). While students from collectivist cultures will never completely reject or be free of family and community influences and expectations, those who reach intrapersonal self-authorship learn to manage them without being controlled by them (Torres & Hernandez, 2007).

Example:

Fadumo encountered resistance from friends in her choice to marry because she rejected the traditional arranged marriage based on her observations of other arranged
marriages, in which she said “a lot of problems” came from not knowing each other. She had seen that in arranged marriages, “the husband did not seem to care about the wife, and the wife was miserable” because she was “just a wife, sitting there taking care of the kids, cooking and cleaning.” She knew that if she chose this life, she would not get an education. So she maintained her position against arranged marriage for the sake of her goals and the kind of relationship she wanted, in which she would be loved unconditionally for who she was and have an equal say in decisions. She explained her reasons to dissenters and maintained her position even when they continued to resist it.

In this process, Fadumo demonstrated several elements of mature, self-authored reasoning. First, in the interpersonal realm, she envisioned the kind of relationship she wanted, one which was based on mutuality and would allow her the freedom to pursue her goals of getting an education and becoming a nurse. Rather than thoughtlessly submitting to or rejecting the views of others, she explained her reasons to them and maintained her position even when they continued to resist it. This seems to indicate that Fadumo has defined her goals in the intrapersonal and interpersonal realms and has internalized them to such an extent that she is willing to interact with those who disagree and continue to pursue them even in light of disagreement. Perhaps her process of deciding on a career did not require her to use her most advanced level of knowing because her career choice had been fixed in her mind for so long that it was non-negotiable.
2. *Intrapersonal Benchmark 2: Attitude toward Obstacles.* This benchmark addresses how participants respond to challenges to their goals and setbacks that occur as they are putting their goals into action. It includes seven generalizations as seen in Table 4-8.

Table 4-8. Intrapersonal Benchmark 2: Attitude toward Obstacles, Generalizations

<table>
<thead>
<tr>
<th>Initial (n=2)</th>
<th>Intermediate (n=3)</th>
<th>Early Mature (n=4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not acknowledge any</td>
<td>Set goals and acted on them, but sometimes</td>
<td>Made allowances for</td>
</tr>
<tr>
<td>obstacles toward fulfillment</td>
<td>allowed the opinions of others to get in</td>
<td>external obstacles and</td>
</tr>
<tr>
<td>of goals</td>
<td>the way of their goals</td>
<td>revised goals based on personal needs,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>interests, and abilities</td>
</tr>
<tr>
<td>2. Avoidance</td>
<td>5. Formulas</td>
<td>7. Persistence</td>
</tr>
<tr>
<td>Resorted to flight or</td>
<td>Continued to pursue goals using formulas to</td>
<td>Persisted in their goals using a wide range</td>
</tr>
<tr>
<td>avoidance because they</td>
<td>temporarily resolve disequilibrium</td>
<td>of intrapersonal supports</td>
</tr>
<tr>
<td>could not cope with</td>
<td></td>
<td></td>
</tr>
<tr>
<td>difficulty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Fatalism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gave up based on fatalistic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>views that it was “not the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>right time” and they could</td>
<td></td>
<td></td>
</tr>
<tr>
<td>not succeed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Initial

Generalization 1: Unacknowledged. Did not acknowledge any obstacles toward fulfillment of goals

Participants at the initial level believed so strongly in the formulas they were following to achieve their goals that they did not acknowledge any obstacles that stood in their way.

Example:
Warafa focused on the success of his formulas in helping him achieve his goals and did not describe any obstacles toward achieving them.

Generalization 2: Avoidance. Resorted to flight or avoidance because they could not cope with difficulty

At the initial level, participants responded to difficulty with panic. Believing that they could not cope with it, they removed themselves from difficult situations.

Example:

When Pilar and her husband first moved to the US, she responded to the challenges of culture shock by fleeing back to her home country after six months because it was so hard for her to be separated from her family. She explained, “I was just homesick, and it’s a different world for me, and I was unable to adjust.” Just as she had done when she first dropped out of college, Pilar responded to difficulty with fear. This illustrates that at times, Pilar’s lack of self-efficacy led her from passivity to outright flight to avoid difficulty. However, she acknowledged that going home had only made her adjustment to America more difficult.

Generalization 3: Fatalism. Gave up based on fatalistic views that it was “not the right time” and they could not succeed

One of the major factors in participants’ ability to persist in their goals in spite of obstacles was their understanding of the limited nature of opportunity and the urgency of taking action to reach their goals. Without this understanding, participants at the initial level gave up in the face of difficulty, embracing the fatalistic view that they were not meant to achieve the goal they were attempting. Their understanding of urgency and
limited opportunity was rooted in their attitude toward time, which emerged as one of the major distinctions between collectivist and individualist cultures. Every participant except Warafa, who avowed a total ignorance of American culture, mentioned attitude toward time as one of the main differences between their native cultures and American culture. Pele described his culture’s present orientation and fatalism in this way:

“We don’t usually value timing. Time is not a big deal to us. We just do it. And we don’t value futures, like what you’re gonna do after two years, three years. We just let it go by, let things happen because we believe that you never know when you’re gonna die. Every blink is probably in the next blink, you will not be alive, so we don’t think about futures a lot. That’s why. I still view time this way. I can’t say we don’t think about the future, but we don’t value it at all, like we will not give up things that are present for future. Let’s say you attempt to do something, but in the future, that thing is maybe not gonna work out. We don’t actually think of it that way. We just do it.”

Fadumo explained, “In [our] culture we believe that things will happen whether you plan or not, so just don’t worry about it and live with whatever you have now.” She said she encountered and embraced an American attitude toward time while in high school, when she “saw how American people were about and time” and “liked it.” While she acknowledges, “Sometimes things will happen [that I cannot plan for]” she says, “still, I think I need to plan ahead and do reservations before the time comes.” As she avows, this future orientation has been essential to reaching her goals in the United States.
The idea of time, opportunity, and fatalism featured prominently in Pilar’s narrative as well. She repeatedly gave up in the face of difficulty, concluding that it was “not the right time” to pursue the goal she was attempting. She stated that she had always wanted to do two things in life: to get married and to become a teacher. However, when she did marry as a sophomore in college, she found that she was not used to balancing schoolwork and housework, as her mother had always done all the cooking and cleaning so she could focus on her studies. Her parents advised her to quit school so she could put her family first, saying, “You can go back someday when your kids are all grown up.”

Following their advice, she quit school so she could stay focused on her husband and the responsibilities of taking care of their son and their home. She explained her rationale this way: “It’s always family is the first priority. I put myself in that position, so I have to make sure that I do my responsibilities as a wife and mother. I guess this idea came from my family because my mom doesn’t really work and my dad always says to stay focused as a wife and mother. She went to college two years also and she didn’t finish. She didn’t pursue going back because her family grew too, and my dad just kinda decided to make sure she stays home and focuses on us and him.”

She said, “I did try pursuing my college, but it was just hard with married life, so I ended up just quitting. I really wanted to keep studying, but I just can’t put myself in that situation. It’s so hard, and you can’t really push yourself. It’s just not gonna function right. You won’t have time to focus on your husband or housework because you gotta have that time to study.” At that stage in life, Pilar retreated into passivity partly because she did not have a sense of self-efficacy in balancing home and school. She believed that
if she pushed herself to overcome difficulty, she would fail and cause her family to suffer. Looking back on this decision, she says, “I really wanted to get education right away, but it didn’t work out. I guess it just wasn’t the right time.”

Pilar’s attitude toward time and toward missed opportunities seems to echo Pele’s attitude that opportunities are not urgent and if they are missed today, they will come again tomorrow. Pilar also adds a sense that everything happens for a reason and that even disappointments and lost opportunities were meant to happen, as they were part of making her the person she is now. This allows her to conclude, when looking back on all of her missed opportunities to go to college, that it was simply “not the right time” for her to go and that without the experiences she has had since, she might not have been able to succeed in college. Throughout her four unsuccessful attempts to attend college, her attitude toward time and opportunity insulated her from regret, but also seemed to prevent her from acting on her goals and values.

Intermediate

Generalization 4: Postponement. Set goals and acted on them, but sometimes allowed the opinions of others to get in the way of their goals

Although participants at the intermediate level were developing an understanding of their goals and values and beginning to act on them, they had not yet fully internalized them. As a result, their pursuit of their goals could sometimes be thwarted by the resistance of significant others, a lack of self-efficacy, or other encounters with difficulty.

Example:
In 2007, Pilar again tried to return to college. Although she had always wanted to be a teacher, she took classes in accounting because her mother-in-law told her that office clerks were more in demand than teachers. However, she saw even before the end of the semester that this career did not suit her personality. She concluded, “[Accounting] is not for me because I know you sit in a cubicle and work by yourself, but I’m more of a people person. I like to talk.” Pilar initially showed a lack of self-awareness when she allowed the economy and the advice of trusted others, rather than her personal interests and abilities, to dictate her choice of major. However, this experience did seem to deepen her understanding of herself by showing her more about what she needed in a career.

At this time in life, she did not act on her new understanding. Although she was developing understanding of her needs and goals, she had not internalized them enough to act on them. As a result, her pursuit of her goals continued to be thwarted by passivity. She said, “I didn’t pursue it then, and then I waited. I don’t know why I didn’t change course right away back then. I guess it just wasn’t the right time.” In 2008, she thought about trying again, but decided not to because she was so busy.

Generalization 5: Formulas. Continued to pursue goals using formulas to temporarily resolve disequilibrium

At the intermediate level, some participants who continued to pursue their goals in spite of difficulty did so not because of a personally defined belief system, but because they allowed external formulas to temporarily distract them from the disequilibrium they faced.

Example:
When Pilar was diagnosed with cancer in 2009, she maintained hope and persistence by reminding herself of the religious formulas she had grown up with. She said, “I just had to trust God because He’s the only one in control of my life. I told God, ‘This is yours now. I’m not in control.’ I’m just gonna live life normally and not think about it. This peace comes from a deep relationship with the Lord. I’m not even depressed. When I first found out, I was shocked and depressed. I just had so many questions why. Just like I told my doctor, I don’t put toxic things on my body, and I take care of myself. He says, ‘I don’t know, but it happens to everybody, even to healthy people’. That I guess answers it. I wish I knew, but just like my family says, we have to trust the Lord. Things happen for a reason.”

One again, Pilar coped with difficulty by falling back on her view that everything happens for a reason. She resolved her disequilibrium by returning to the religious formulas she was used to. While acknowledging the absence of control and the impossibility of complete knowledge may be part of a mature view of uncertainty, deciding to “trust the Lord” as her family told her to do may not be. On one hand, she says that she has peace that comes from a “deep relationship with the Lord,” which may indicate that she has begun to internalize her religion based on her own life experience rather than simply accepting what her parents passed down to her. Either way, her dismissal of her questions in the name of surrender and trust may indicate that that she has chosen the path of least resistance rather than working through this experience to modify and deepen her previous concept of faith (Baxter Magolda, 2001).
Mature

Generalization 6: Persistence. Persisted in their goals despite difficulty and resistance

This study supports the conclusions of previous research that individuals at a mature level of intrapersonal development maintain their commitment to their goals and persist in pursuing them despite resistance (Pizzolato, 2007; Baxter Magolda, 2001).

Example:

Pilar came to value persistence after a long struggle to internalize it. But once she saw its benefits, she wanted to pass them on to her children. She said, “I want them to see that after all the struggle, you can still pursue your dreams. If someday they’re in my shoes, in the same situation, they can look at me and think of me and say to themselves, if my mom can do it, we can do it too.”

Interestingly, Pilar saw persistence as a uniquely American value contrasting with the passivity and fatalism she had grown up with. She said, “I want my kids to just be persistent and not give up, and that’s the American way. I love that. They’re just into it. If they fail the first time, they get back up and try again. They just have that. I just saw some Americans like that, and I was like, ‘Wow.’ Back home, the people that I know, they just kinda settle there. They will settle there or try other things and not pursue that same thing, but here in America, you can keep pursuing that one thing that you really wanted in life, and you just have that opportunity to keep pursuing it.” Pilar’s commitment to keep pursuing her goals despite difficulty demonstrates a mature level of development (Pizzolato, 2007).
Generalization 7: Accommodation. Made allowances for unavoidable obstacles and revised goals based on personal needs, interests, and abilities

Participants at a mature level of development understood that some obstacles were insurmountable. Rather than being defeated by them, however, they found ways to alter their goals in ways that were still consistent with their needs and values (Baxter Magolda, 2001).

Example:

When Pilar did return to college in 2009, she understood not only the limitations of the economy, but also her own interests and needs in a career. Although her friends encouraged her to pursue her dream of being a teacher, she chose not to because of the number of teachers she knew who were unemployed. Instead, she narrowed her choices to psychology or school counseling, two choices she felt would be in demand in this economy and fit her abilities and values of working with children, giving them advice, and showing them that adults could be trusted.

Intrapersonal Benchmark 3: Attitude toward Cultural Identity. This benchmark refers to participants’ reasons for identifying with a particular culture, their attitudes toward other cultures, and the extent to which they were willing to embrace a bicultural identity by weighing the positives and negatives of their native and adopted cultures and choosing values and traditions from both. It includes eight generalizations as described in Table 4-9.
Table 4-9. Intrapersonal Benchmark 3: Attitude toward Cultural Identity, Generalizations

<table>
<thead>
<tr>
<th>Initial (n=2)</th>
<th>Intermediate (n=3)</th>
<th>Early Mature (n=2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Association Defined identity by birthplace or environment rather than personal criteria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Rejection Threatened by difference; refused to embrace any aspect of a foreign culture (King et al, 2009)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Accommodation Adopted different cultural behaviors, but not the values behind them</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Need for approval Maintained native customs out of a desire for approval</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Chameleon Tried to satisfy the expectations of both cultures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Trial and error Tried something American to see if they liked it</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Balance Acknowledged positives and negatives of both cultures; suspended judgment while weighing beliefs from both cultures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Integration Created an integrated cultural identity by defining personal values adapted from both cultures</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Initial

Generalization 1: Association. Defined identity by birthplace, environment, or what others had told them about culture. Had not defined personal criteria for a cultural identity

Participants at the initial level relied on external characteristics like birthplace or on the formulas their parents or elders had given them, rather than personally defined values, to define their cultural identities. They had not yet identified the cultural values that were important to their concepts of self (Torres & Hernandez, 2007).

Example:
Pele classifies himself as fully African and states that he has never questioned his ethnic identity, that his culture affects everything he does, and that he connects so closely with his culture because he has grown up around African people. This seems to indicate a lower level of development because it arises from association rather than a careful weighing of values.

When asked how he decides what to accept or reject from American culture, Pele says, “I haven’t thought about that yet because I just let things come and decide what I’m gonna do when they come.” This laissez-faire attitude toward time, rooted in his cultural values, has kept him thus far from defining criteria for cultural choices.

His unfamiliarity with criteria used to weigh options may also be connected to his family’s decision-making style. In the hierarchical structure of his family, his grandmother made the decisions without explaining her reasons to him, and he accepted and followed her decisions because he reasoned that she cared about him and, therefore, had the right to make his decisions.

Generalization 2: Rejection. Threatened by difference; refused to embrace any aspect of a foreign culture

At an initial level of development, participants saw cultural differences as threats to their identity and their duty to maintain their native culture in another country. For some participants, this sense of danger was so extreme that it caused them to avoid even thinking about beliefs and values different from their own (King et al, 2009).

Example:
Even though Warafa did acknowledge differences between himself and other students in the area of religion and cultural beliefs, he stated that the differences did not affect him because he was determined not to let anything alter his commitment to stay true to his religion and culture. He said, “When coming to the USA, you meet a lot of different people, different cultures, different religions, but I believe you have to be strict with your religion and behaviors by not changing.”

Warafa felt that maintaining his religion and behaviors was his primary cultural duty. As a result, he rejected anything that would require him to change his culture or religion. He said, “If I look at certain things that may affect my religion or my culture, then I will not take it.” Consistent with prior research on students reasoning with external formulas, Warafa feels threatened by difference (King et al, 2009). While he is aware of different religions among students at the college, he refuses to think or talk about them, as he sees college as the realm of academics, where conversations must be limited to assignments and “the respectful thing is not to talk to someone about religion.” He says, “There are different religions, but I don’t consider about religions. It is not a matter to consider, about people’s religion. Every person has his own religion. That’s what I believe. Being in school, you don’t have to talk about religion. What you have to focus your time on is only books. When I talk to other people, I talk to them about assignments, something in class, to help each other understand it. Having different religions does not have to affect you, because every person has his own religion and will not interfere with your religion.”
While maintaining his commitment not to change anything he has learned in Africa, he dismisses other religions using the tenets of cultural relativism. He stated, “Other people have their thoughts, but I keep thinking my own thoughts.” By adopting this attitude, he avoids considering or even learning about beliefs and values different from his own. He insists that churches and mosques are the places for talking about beliefs, and he was reluctant to discuss religious, cultural, or ethical beliefs in the interview. When asked which ethnic group he most closely identified with, he said, “I cannot say that because every person has his own culture, so I cannot interview about culture.” He gave the same answer when asked about his expectations of America. Only when the interviewer assured him that she would not tell him anything about her own culture or beliefs, but merely wanted to understand his culture, did he consent to answer questions about culture and family decisions. Warafa’s extreme perception of threat from difference, reluctance to even talk about beliefs different from his own, and commitment not to let any outside influences affect his beliefs provide further evidence that cognitively, he remains at an initial level of development (King et al, 2009).

Generalization 3: Accommodation. Adopted different cultural behaviors, but not the values behind them

Participants who were less threatened by difference took a largely pragmatic approach to American culture. They adopted the behaviors needed to survive in the culture, but did not allow them to change their thinking. Although they did not completely reject American culture, their unwillingness to consider its values on a meaningful level showed that they were still relying on external formulas for cultural
identity and had not yet begun to define their own identities using values from other cultures as well as their own (King & Baxter Magolda, 2005).

Example:

Pele described how he had decided to modify his behavior to succeed in America, even though he continued to hold to an African attitude toward time: “In the past, I didn’t think about schedules. I just did whatever was next. If you can’t do it at that time, then you do it tomorrow. I changed because I would not be living here if I stuck with my old belief, which was if I can’t make it to an appointment with you today, then I will make it tomorrow. Probably that’s not gonna work out right now, here. If I can’t make the appointment, probably I’m not gonna get it again...I made some changes to succeed in this culture.”

Intermediate

Generalization 4: Need for approval. Considered other cultural views, but maintained native culture out of a desire for approval

Participants at an intermediate level of development chose to maintain aspects of their native cultures out of a desire to earn the approval of those from their native cultures and their host culture (Drago-Severson, 2004).

Example:

Bee said that she connects more with her native culture because she sees more good things in her culture and disapproves of how informal Americans are with people of any age, especially teachers. She chooses to maintain her culture because American people approve of how soft-spoken and respectful she is of older people.
Generalization 5:  Chameleon.  Tried to fulfill the expectations of both cultures

Some participants at the intermediate level did not reject external formulas completely, but rather tried to modify them in order to please people in both cultures. Although they were willing to embrace some American cultural values, they tried to maintain them alongside the values of their native cultures so that they would not have to choose between the two cultures.

Example:

After describing the dominance of her African cultural values in every one of her decisions, Ifrah said she connects most closely to American culture because she has an American education and because in her culture, she would not be able to get an education or go to work. This departure from traditional gender roles and gratitude for the opportunities she had in America were enough to make her feel close to this culture. Her choices to go to school and work involved a conflict between her native cultural values, which required her to stay home, and American cultural values, which encouraged her to pursue a career and an education. She resolved the tension caused by this conflict by trying to fulfill the responsibilities of both cultures, keeping up with the housework while working and going to school. Her ability to do this so far, as well as the hope that her work as a certified nurse’s assistant will help her in the future, reassured her that she had made the right choice.

In this choice to go against the external formulas she has always relied on in favor of personal goals and values, she is beginning to shape her own identity. However, she has not yet reached the Crossroads intrapersonally because so far, she has been able to
balance the responsibilities of African and American cultural formulas and has not experienced enough disequilibrium to define her own system of values distinct from both cultures.

Generalization 6: Trial and error. Tried something American to see if they liked it

Several participants described relying on the effects of a cultural decision to determine its rightness for them. This reliance on trial and error suggests that even though they have started to define their personal values, they are not aware enough of those values to use them to weigh cultural decisions before making them. Because they are not consciously choosing to weigh their values and bring their decisions into line with them, they are at an intermediate level of development (Baxter Magolda, 2001).

Example:

Fadumo says that she chooses what to accept or reject from American culture based on a trial and error method in which she tries something new, experiences the effects of it, and then either absorbs it into her life or returns to her old way of doing things. As an example, she describes partying with American and African friends during her senior year of high school and “losing the culture” by acting like “a typical American teenager.” Ultimately, she concluded that this decision was wrong for her because she was losing her closeness to her parents and her good grades, and she felt that she was “off balance” because she was “only worried about how to make happy my friends and do the things they wanted me to do.”

Although Fadumo did not use her values to weigh her decision beforehand, she had enough awareness of her own identity to recognize that she was sacrificing it in order
to please her friends. This experience appears to have been developmentally effective because it helped her to solidify her sense of identity, see the inadequacy of relying on others’ approval, and move toward making decisions based on her own values (King et al, 2009).

Mature

Generalization 7: Balance. Suspended judgment while weighing beliefs from both cultures

Students at a mature level of development are willing to suspend judgment while considering perspectives different from their own. The willingness not only to listen and weigh different perspectives but also to accept them even if they question long-honored traditions and challenge the beliefs of the majority is a hallmark of cognitive maturity.

Example:

Fadumo says she differs from others in her culture by “being open to other people’s ideas. If people tell me something, I trust people and see what they say. Maybe it’s right and I should give thought before I refuse or reject people.” She described how she had listened to an advocacy group working against female genital mutilation and become convinced that “we can make a difference if enough [African] women talk about this.” Although she knew that convincing others in her culture would be a challenge, she said she knew that attempting to do so was the right thing to do.

In this example, Fadumo distinguishes herself from Warafa and Pele, who are also from her culture, by suspending judgment while considering perspectives different from her own. Her willingness not only to listen and weigh different perspectives but also to
accept them even though they question long-honored traditions and challenge the beliefs of the majority shows a higher level of cognitive development than the one displayed in her description of academic decisions, in which she allowed the views of the majority to determine her choice of classes. Perhaps because the choice of classes is cognitively simpler than the choice to work against a cultural tradition and does not trigger any resistance, it may not require Fadumo to draw from her highest level of cognitive development. This choice in which Fadumo suspended judgment, considered different perspectives, and defined personal values that superseded cultural ones shows that in this benchmark of the cognitive domain, she may be approaching self-authorship as she defines the values by which to make cultural choices (Baxter Magolda, 2001).

Generalization 8. Integration. Created an integrated cultural identity by acknowledging the positives and negatives of both cultures and defining personal values that superseded cultural ones

Instead of accepting their culture without question, rejecting American culture completely, or accepting only aspects needed for survival, participants at a mature level acknowledge that there are positive and negative aspects of both cultures and that they must use these aspects to weigh their cultural decisions (King & Baxter Magolda, 2005).

Example:

When describing her cultural identity, Fadumo says, “I like to practice both, take what’s good and combine and see what I can get from there.” From her own culture, she rejects being controlled by her husband, submitting to an arranged marriage, and staying at home to cook and clean. She embraces the “freedom” of American culture, and she
tells people who challenge her that Americans are smart and right for doing the things she enjoys doing in America. Because of this, some of her friends and family see her as more American than East African. However, Fadumo understands that keeping her culture does not have to mean embracing every part of it and rejecting outside influences. In this, she demonstrates the mature characteristic of weighing the positives and negatives of both cultures and integrating them into a bicultural identity.

Interpersonal Benchmarks

The interpersonal domain explores how participants answer the question, “What kind of relationships do I want?” and how they apply those answers in their relationships with others. It examines not only how they handle close personal relationships, but also the extent to which they acknowledge their responsibility to advocate even for those outside their inner circles. The four benchmarks in this domain are Attitude toward Relationships, Attitude toward Mutuality, Attitude toward Conflict, and Attitude toward Advocacy.

Interpersonal Benchmark 1. Attitude toward Relationships. This benchmark describes the criteria participants used to choose relationships with friends and significant others. Initially, participants preferred to pursue relationships with those who were like them, could benefit them in some way, or measured up to formulas set by their families or cultures. At higher levels of development, they worked toward their own criteria for developing relationships. This benchmark includes five generalizations, which can be found in Table 4-10.
Table 4-10. Interpersonal Benchmark 1: Attitude toward Relationships, Generalizations

<table>
<thead>
<tr>
<th>Initial (n=3)</th>
<th>Intermediate (n=1)</th>
<th>Early Mature (n=1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Similarity</td>
<td>4. Inconsistency</td>
<td>5. Values</td>
</tr>
<tr>
<td>Preferred friends like themselves</td>
<td>Began to consider personal needs, but were still influenced by external expectations</td>
<td>Used personal values to shape the criteria by which they chose relationships</td>
</tr>
<tr>
<td>2. Personal Benefit</td>
<td>3. Formulas</td>
<td></td>
</tr>
<tr>
<td>Looked for benefits they could receive from others</td>
<td>Followed formulas provided by religion, culture, and parents</td>
<td></td>
</tr>
</tbody>
</table>

Initial

Generalization 1: Similarity. Preferred friends like themselves

At the initial level, participants were uncomfortable with difference and desired to surround themselves with others like themselves (King et al, 2009).

Example:

Warafa lived and spent most of his time with his high school friends from Africa. In the interpersonal domain, he was most comfortable with friends who were like him, with whom he had a personal history.

Generalization 2: Personal Benefit. Looked for benefits they could receive from others

Another aspect of an initial level of development is a focus on the personal benefits one can receive from relationships. Participants at the initial level emphasized helping others in order to receive help from them in the future (Drago-Severson, 2004).

Example:
Pele’s attitude towards friendship seems to be slanted toward its benefits to himself. He looks for friends he can count on to care about his problems and worry about him, and while he says it is important to be unselfish and help his friends, he thinks this is important because “if you give help, then you will get help.”

Generalization 3: Formulas. Followed formulas provided by religion, culture, and parents to choose relationships

When selecting relationships, participants at the initial level followed formulas provided by their cultures, families, or religions. They were not yet familiar enough with their own needs in a relationship to shape their personal criteria for relationships.

Example:

Pilar described the qualities she looked for in a husband by saying, “I always adored my father, and I wanted my husband to have my dad’s perspective, the way he is, and he has a job and I know he’s able to provide for me, and he’s a good person; he jokes around, and I can see a little resemblance between his character and my father’s. He has a strong religious belief; he’s a very grounded Christian. He has a job and the provision is there just like my dad, and so I thought this is just perfect.”

At the time she chose her husband, Pilar was following the external formulas provided by her religion, her culture, and her relationship with her father. She thought her husband would be “perfect” for her because he shared her religion, fulfilled the cultural gender role of provider, and reminded her of her father, who had always given her a formula for the success of a relationship. He told her that if she put family first by making time for them and fulfilling her responsibilities to them, then her relationships
would succeed. Pilar used this formula to justify dropping out of college to put her husband first and make time for him, and she used it again to explain why shortly after coming to America, her marriage had ended in divorce. She said, “Back then we had a happy marriage, but things changed when we moved here. That’s when everything fell apart, I think because of the culture too. It’s really busy here; we didn’t have time for family. When we got too busy to put family first, that’s what happened. And I ended up working too because here you have to work. And the time we spent together was not enough to keep our marriage happy or strong. I guess I admire those women who just stay home. It’s just the busyness of life that changes everything.”

Intermediate

Generalization 4: Inconsistency. Began to consider personal needs, but were still influenced by external expectations

At the intermediate level, participants were beginning to identify the kinds of relationships they wanted, but they could still be swayed by others’ opinions and a need for their approval.

Example:

Ifrah’s criteria for selecting a husband reveal that she is beginning to consider her personal goals in her choice of relationships. She said that she knew her potential husband “was a good man” because he was willing to postpone their marriage until after she graduated from high school and was willing to let her go to college. She also trusted him because of the length of their prior relationship, as they had known each other since childhood, and because he was nice to her. However, familial and cultural approval still
factored most heavily into her decision to marry. She said, “It was most important to me to make my family happy when I decided to get married...because they helped me a lot when I was young, and they even help me now that I am older. So I just give them the priority, and it’s my culture to respect them.” Again, a sense of gratitude and duty to her family and culture caused her to place her family first. However, she also desired the respect her culture afforded to married women, noting that marriage “makes me a woman, an adult, so it helps me a lot. People respect me more now that I’m married. I feel better about myself more too.” The fact that Ifrah’s respect for herself grew out of the respect of others suggests that she has not yet developed a sense of confidence rooted in personal identity.

Mature

Generalization 5: Values. Used personal values to shape the criteria by which they chose relationships

Participants approaching maturity pursued relationships with those who would support their goals and sense of identity. They allowed their internal sets of beliefs, goals and values to shape the criteria by which they chose a relationship (Baxter Magolda, 2001).

Example:

About her criteria for a husband, Fadumo said, “I knew my husband would support me, would let me go to school and work and would not control me. In my culture, a lot of men try to control their wives, but my husband was not like that. I knew he was a good man because he was patient.”
Interpersonal Benchmark 2. *Attitude toward Mutuality.* This benchmark addressed the extent to which participants valued mutuality in a relationship and applied their views of mutuality to their relationships. It includes three generalizations, which are described in Table 4-11.

Table 4-11. Interpersonal Benchmark 2: Attitude toward Mutuality, Generalizations

<table>
<thead>
<tr>
<th>Initial (n=5)</th>
<th>Intermediate (n=1)</th>
<th>Early Mature (n=1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Formulas</td>
<td>2. Inconsistency</td>
<td>3. Equality</td>
</tr>
<tr>
<td>Did not see</td>
<td>Idealized mutuality, but did not consistently apply it</td>
<td>Valued individual perspectives regardless of age and gender; suspended judgment while weighing options using mutually-defined criteria</td>
</tr>
<tr>
<td>mutuality as essential; accepted hierarchical cultural formulas</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Initial

Generalization 1: Formulas. Did not see mutuality as essential; accepted hierarchical cultural formulas

Participants at the initial level preferred hierarchy over mutuality and saw no reason to change the hierarchical formulas they had grown up with (King et al, 2009). They did not seek out mutuality in their relationships.

Example:

Pilar did not include mutuality or support for her goals as part of her criteria for a husband. Although her goal in her home country had always been to finish her education and become a teacher, she gave up this goal because she feared that going to college was taking too much time away from her husband and would threaten their relationship.
When they arrived in America, she again gave up the chance to return to school so that she could help support her husband and son financially.

Pilar saw having to work as a financial obligation that had contributed to the failure of her marriage. Perhaps because of her reliance on her father’s formula for marital success, she did not consider how a lack of mutuality in her marriage may have also weakened it. Interestingly, her husband had insisted that they come to America in order to be closer to his family, who was living there already. He responded to her overwhelming homesickness and longing for her family by telling her, “You have to fight missing your family and adjust to the culture here.”

Pilar did not question this, but said, “It was hard because he had a job here and couldn’t leave his job and his parents. It’s just hard for me because I missed my family a lot, but I had to come [to the US] because he’s my family now.” While she sacrificed her career aspirations and her proximity to her family for his sake, he was unwilling to give up his job as a carpenter or his closeness to his own family for her, suggesting that their relationship may not have been equal. However, Pilar still relies on her father’s formula about avoiding busyness and putting family first to explain why her marriage failed. This indicates that in the interpersonal realm, she may not have embraced mutuality as essential for a marital relationship.

Intermediate

Generalization 2: Inconsistency. Idealized mutuality, but did not consistently apply it.
Participants at the intermediate level understood that mutuality was important in their relationships and listed it as something they desired. However, they were still working to apply it consistently in their relationships.

Example:

Like the families of all the other East African participants, Fadumo’s family used a hierarchical structure to make decisions, with her father at the head of it, followed by her mother. She explained, “That’s the culture. It’s the man’s biggest responsibility. It’s up to him to make decisions and do what’s best for his family.” While her father often asked for her mom’s advice, he had the final say and could “overpower her” if he wished.

Notably, Fadumo is the only East African participant to say she would depart from her family’s decision-making style by sharing equally with her husband in decision-making. She sees mutual decision-making as a benefit of living in America. She explained that in her marriage, “We both make the decisions. It’s different. We are here now, so I like to share. I want him to share with me before he makes the decision, and he has been doing that. It’s the American way, they say, but if it’s right, I like it.” Fadumo deeply desires mutuality in her relationship with her husband. She said that one of the reasons she rejected a traditional arranged marriage was that she wanted a husband who would love and adore her for who she was and would let her share equally in decisions.

But although Fadumo idealizes mutual decision-making, her own likes and desires still seem to dominate the input she gives her husband. After she started attending college, her husband, who had been laid off, was offered a “real-nice-paying job” in a city two hours away. However, she did not want to move to an unfamiliar college where
she did not know the teachers, the students, or where to go for academic support. So she told him, “This job, you can find it here, if you are patient.” Ironically, her sense of urgency and fear of missed opportunity in her own career vanished when advising her husband about this rare opportunity in a poor economy.

She explained, “Starting over in school I think is hard for me, so that’s the only reason I told him we’re not gonna move to the city.” She acknowledges that her motivation in this case was completely one-sided and that as a result of taking her advice, her husband is still unemployed. However, she continues to hope that the situation will be redeemed in the long run. She said, “I think it will pay off after a while. That’s what I told him and he believes that too. Hopefully, I am not wrong.” This seems to indicate that in the interpersonal realm, Fadumo has not yet transferred her ideals of mutuality into action.

Mature

Generalization 3: Equality. Valued individual perspectives regardless of age and gender; suspended judgment while weighing options using mutually defined criteria

Participants at a mature level were committed to valuing the perspective of every individual and suspending judgment while weighing options using criteria they had defined (King & Kitchener, 2009). They were willing to engage all members of their families in the decision-making process regardless of age or gender.

Example:

Pilar demonstrates a belief in mutuality in her interactions with her children. In her decision to go back to school, Pilar eagerly elicited the opinions of her children and
asked them to share the reasons for their opinions just as she explained her reasons to them. When her children shared that they were worried they would not have enough time with her when she returned to school, she suggested setting aside at least a half hour each day with each child to do an activity of their choice, which eased their fears and enlisted their support. This was because she believed, as her family had, that “kids have different wisdom. The younger ones might make more sense.” Rather than allowing majority vote to rule, Pilar urged her children to suspend judgment and “weigh the pros and cons” and “rethink” the decisions they were suggesting for at least a week, after which the family would vote again. She explained, “Everyone votes, but we still have to decide together what is best in the situation” by weighing each option using criteria of “what makes more sense and what will help a person out more” as well as whether an idea “works from every angle.”

Just as her father had done, Pilar encouraged mutual respect by telling her children that even though it was not appropriate for them to talk back to her in a disrespectful way, she would give them a time to share their opinions with her in a family meeting at the end of the day. While other participants talked about mutual respect, Pilar’s descriptions of her conversations with her children and their decision-making practices show that she has internalized these values enough to apply them, even though she does not yet apply them to marital relationships.

*Interpersonal Benchmark 3. Attitude toward Conflict.* This benchmark addresses how participants view and respond to conflict, especially in their closest relationships. It contains three generalizations as shown in Table 4-12.
Table 4-12. Interpersonal Benchmark 3: Attitude toward Conflict, Generalizations

<table>
<thead>
<tr>
<th>Initial (n=1)</th>
<th>Intermediate (n=1)</th>
<th>Early Mature (n=2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Abdication Relied on family members to resolve their conflicts; had not developed criteria for resolution</td>
<td>2. Avoidance Avoided conflict whenever possible; saw the absence of conflict as evidence of mutual respect</td>
<td>3. Resolution Resolved conflict through suspending judgment and weighing both perspectives</td>
</tr>
</tbody>
</table>

Initial

Generalization 1: Abdication. Relied on family members to resolve conflicts; had not developed criteria for resolution

Participants at the initial level relied on the authority of significant others to resolve conflict in their relationships (King et al, 2009). Consequently, they had not developed their own criteria for weighing options and resolving conflict.

Example:

Ifrah and her husband do not resolve conflict on their own. When they disagree about something, they rely on their family to tell them which idea is best, and they both submit to the family’s decision.

Intermediate

Generalization 2: Avoidance. Avoided conflict whenever possible; saw the absence of conflict as evidence of a healthy relationship

Whether because of limited experience with resolving conflicts or reliance on the approval of others, participants at the intermediate level tended to avoid conflict and exposing themselves to disapproval whenever possible This fear of disagreement and
need for approval are characteristic of an intermediate level of development because knowers see conflict as a threat to the relationships that are essential to identity (Drago-Severson, 2004).

Example:

In addition, Ifrah says a marriage is happy when “you both agree on the same thing, no fighting, no arguing. Just make him happy and he will make you happy.” While she says that a good marriage is based on mutual respect, she sees the absence of conflict as evidence of this respect. This understanding of relationships shows that she has not yet achieved mutuality, even though she claims to value it. Similar to Pele’s mantra to help friends so they will help him, this approach is not rooted in true mutuality, seeking to understand each other’s perspective and work through conflict to a solution that honors the viewpoints and goals of both partners.

Mature

Generalization 3: Collaboration. Resolved conflict through suspending judgment and weighing multiple perspectives

Participants at a mature level understood that conflict is part of a healthy relationship and that it can be resolved by suspending judgment and listening to both sides (Drago-Severson, 2004).

Example:

Pilar described her approach to resolving conflict in this way: “I tell my kids, ‘Put yourself in their shoes. How would you feel? Would you think that’s best in that situation? No? Then don’t do it.’ How it’s best is how it will affect other people. They’ll
learn and from it, it will shape them up too because it’s not just seeing it from their point of view, but if you’re that person, you’ll see it from a different view. You’re seeing a picture at a different angle, so you will learn the situation. That’s the only way you can understand the situation because it’s not just one person’s deal. When there’s conflict it involves two people, and you can’t just see things from your point of view. You have to step in the other person’s shoes to see their point of view. And once you see both sides, then you will be able to put the puzzle together. You see what would be the best to do, the best action, how you’re gonna fix things. Seeing both views, you’ll be able to find a solution. Pilar’s emphasis on understanding and considering both sides demonstrates maturity in her approach to conflict.

*Interpersonal Benchmark 4. Attitude toward Advocacy.* This benchmark addresses the extent to which participants are aware of racism and their responsibility to advocate for others. It includes five generalizations as shown in Table 4-13.

**Table 4-13. Intrapersonal Benchmark 4: Attitude toward Advocacy, Generalizations**

<table>
<thead>
<tr>
<th>Initial (n=2)</th>
<th>Intermediate (n=4)</th>
<th>Early Mature (n=1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Unaware</td>
<td>3. Need for Approval</td>
<td>5. Engagement</td>
</tr>
<tr>
<td>Unaware of racism or the need for advocacy</td>
<td>Response mediated by a need for approval</td>
<td>Were willing to work for the rights of others</td>
</tr>
<tr>
<td>2. Self-centered</td>
<td>4. Dismissal</td>
<td></td>
</tr>
<tr>
<td>Did not acknowledge responsibility to a wider world</td>
<td>Dismissed racism through relativism: “Oh, it’s their opinion. Just leave it.”</td>
<td></td>
</tr>
</tbody>
</table>
Initial

Generalization 1: Unaware. Unaware of racism or the need for advocacy

Participants at the initial level did not describe any sort of racism, injustice, or responsibility for advocacy.

Example:

The only responsibility toward others Warafa described was helping classmates with assignments. However, he lived and spent most of his time with other East African students. His isolation within his own cultural group may be keeping him from recognizing negative attitudes towards immigrants or the need for advocacy.

Generalization 2: Self-centered. Considered the impact of advocacy on self; did not acknowledge responsibility to a wider world

When participants at an initial level did acknowledge racism, they “[viewed] social problems egocentrically,” focusing only on how responding to racism and advocating for others would impact themselves (King et al, 2009, p. 7). If they were willing to advocate, it was to avoid personal regret. If they chose not to advocate, it was to avoid personal consequences.

Example:

In his job at the factory, Pele described seeing factory workers blame immigrants for their own mistakes because they did not speak English well enough to defend themselves and seeing immigrants accept verbal abuse from supervisors out of fear of losing their jobs. However, he did not acknowledge this treatment as racism or perceive his own responsibility to advocate for those who were experiencing it. Instead of calling
this behavior racism, he called it “rude.” Although he admitted the situation was “sad,” he was not motivated to speak up for those who could not speak for themselves. Instead, he concluded that it was “not any of [his] business” to intervene, because even though there was freedom of speech in America, a supervisor might misinterpret his words as a challenge to authority. Consequently, he shifted the blame for this treatment to the immigrant workers who “could actually do something about it” by getting an education and learning English. He stated, “If they want to survive in America, they should know the language.” In this way, he seemingly internalized negative stereotypes of immigrants and failed to recognize the circumstances that might keep them from getting an education or learning English. When evaluating this experience, Pele focused only on his desire to avoid the fate of those he met by getting an education so that he would not have to work at the factory forever.

At the same time, Pele claimed to value speaking up about things he saw as wrong. He said, “You should say what you think because if something happened wrong and you didn’t do anything about it, you’re gonna regret it. ‘Why did I do that?’ But if you did and it didn’t work, at least you know you tried. At least you know you tried and did the good thing, even if it didn’t work. I can’t really remember a time when I spoke up and told someone something was wrong, but yeah, that’s what I think.”

By his own admission and his reaction to seeing people mistreated at work, Pele demonstrates that although he claims to believe speaking up for others is the right thing to do, he is not yet acting on that belief. He may have heard the value of advocacy promoted in his classes, but he has not yet internalized it enough to put it into action.
Pele stated that in Africa, people “minded their own business” and did not confront others about actions they saw as wrong because they felt that doing so would not change the behavior and would more likely provoke a fight. He acknowledged that because people preferred fighting with words in America, there was a better chance that speaking up could cause a person to change a behavior. In the end, however, he chose to return to his former value of “minding his own business” and not speaking out against his co-workers’ behavior for fear of negative consequences to himself. It could be that his current motivation for advocacy, a self-centered avoidance of regret, is not strong enough to translate this value into action. Only when he values advocacy for its own sake and understands his responsibility to a wider world will advocacy become a driving force in his life.

Intermediate

Generalization 3: Need for Approval. Response to racism mediated by a need for approval

At the intermediate level, participants’ desire to be accepted by the group was often stronger than their desire to advocate. Because the approval of others was integral to their identity, they tended to see education as a way to earn the respect of others and avoid becoming victims of discrimination (Drago-Severson, 2004).

Example:

Another reason for Pele’s failure to confront perpetrators of racism could be the emphasis he places on being accepted, respected, and included in the group. He states that wants education so that people will “look at [him] as a somebody and respect [him]
because [he] did that for [himself].” Regarding his interactions with others, he says, “If the people you’re with are all blind, then you have to act blind. You don’t want to be outsiders and have different actions and attitudes than other people, so you try to act how other people act so you can live with them and get along with them. You shouldn’t confront them about what they’re doing, but you can chose not to do it.” At this point, his desire to be accepted is stronger than his desire to advocate.

Generalization 4: Dismissal. Dismissed racism through relativism: “Oh, it’s their opinion. Just leave it.”

Participants at the intermediate level used relativism to avoid having to wrestle with beliefs that made them uncomfortable. Although they experienced and were hurt by prejudice and stereotyping, they did not acknowledge them as such, confront them, or advocate for an accurate view of members of their culture. Instead they used a relativistic view that “everyone has his own opinion” to dismiss and avoid processing prejudiced views.

Example:

Ifrah encountered racism when people questioned her right to be in the US, asking, “Why don’t you stay in your country?” and thinking she was in the US “for fun” rather than survival. Initially, she tried to resolve the negative feelings provoked by these questions by attributing them to ignorance and trying to educate people about the situation in her country. Some people accepted her explanation, but others challenged it, asking, “How can we know this is true?” She advised them to do their own research to prove it.
Ifrah acknowledged that even after trying to excuse people based on ignorance, she still was “not okay.” So she tried to empathize with them, comparing their ignorance of her country with her ignorance of some other countries. When that didn’t work, she resorted to relativism, saying, “They have their own opinion. Leave them. Everyone has his or her idea, what they believe. It takes time to understand.” At first, Ifrah tried to confront racism by educating prejudiced people. When they remained resistant, however, she gave up and retreated into relativism. She did not yet recognize racism or know how to respond to it in a way that advocated for herself and others and reinforced her ethnic identity.

Mature

Generalization 5: Engagement. Were willing to work for the rights of others

Participants at the mature level understood the value of advocacy and their responsibility to advocate for others. They distinguished themselves from those at the intermediate level by their willingness to apply that ideal and make advocacy part of their lives (King et al, 2009).

Example:

Melissa described confronting a racist patient at the hospital who would not allow her to help him because she was “different.” After trying for months to win him over with kindness, she finally told him that her father had been American and that he should not judge people by the way they look. To her surprise, he apologized. Looking back on this experience, Melissa said, “He is the first patient that I ever, ever said that to. I felt mean to myself, saying that, but on the other hand, I felt good because whoever’s on the next
shift, we have other nationalities that will probably have him, and it will be better for him or her the next time they have him.”

This experience was developmentally effective for Melissa because it caused her to see advocacy as something positive that could potentially help others. Of all the participants, Melissa was the only one who described an experience of advocating for others and making advocacy part of her life in the present. While Pele and Fadumo claimed to value it, they had not yet made it part of their lives. Although Melissa’s experience of advocacy was unplanned, it helped to show her the value of advocacy in her life and in others. In this way, it was developmentally effective in leading her to embrace a mature view of advocacy (King et al, 2009).
Contributions of the Survey to the Interview Data

This section explores how the findings of the quantitative *Career Decision-Making Survey* supported and contradicted the findings of the qualitative interviews. A summary of the sections of the survey and the domains and benchmarks they addressed can be found in Table 4-14.

Table 4-14. Domains and Benchmarks Assessed in the *Career Decision-Making Survey*

<table>
<thead>
<tr>
<th>Section</th>
<th>Domains and Benchmarks Assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factors in Career Choice (First three sections)</td>
<td>Cognitive:</td>
</tr>
<tr>
<td></td>
<td>• Attitude toward Insecurity</td>
</tr>
<tr>
<td></td>
<td>Interpersonal:</td>
</tr>
<tr>
<td></td>
<td>• Attitude toward Cultural Identity</td>
</tr>
<tr>
<td>Advisors in Career Choice (Middle four sections)</td>
<td>Cognitive:</td>
</tr>
<tr>
<td></td>
<td>• Attitude toward Competence</td>
</tr>
<tr>
<td></td>
<td>• Attitude toward Authority</td>
</tr>
<tr>
<td></td>
<td>• Attitude toward Multiple Perspectives</td>
</tr>
<tr>
<td></td>
<td>Intrapersonal:</td>
</tr>
<tr>
<td></td>
<td>• Attitude toward Dissension</td>
</tr>
<tr>
<td>Influences on Career Choice (Last two sections)</td>
<td>Cognitive:</td>
</tr>
<tr>
<td></td>
<td>• Attitude toward Competence</td>
</tr>
<tr>
<td></td>
<td>• Attitude toward Insecurity</td>
</tr>
<tr>
<td></td>
<td>• Attitude toward Authority</td>
</tr>
<tr>
<td></td>
<td>Intrapersonal:</td>
</tr>
<tr>
<td></td>
<td>• Attitude toward Cultural Identity</td>
</tr>
<tr>
<td></td>
<td>Interpersonal:</td>
</tr>
<tr>
<td></td>
<td>• Attitude toward Mutuality</td>
</tr>
</tbody>
</table>

Support and Triangulation of Interview Data

First, the survey supported the results of the interview data that participants were generally at initial to intermediate levels of cognitive development in which all opinions, even contradictory ones, were seen as equally valid (Perry, 1970; King & Kitchener, 2004). Although these participants are from three different cultures, their similar
responses to these questions seem to indicate that they do not recognize contradictions between mutually exclusive responses; they tend to express equal levels of agreement with all of them. Perhaps because of their levels of cognitive development, they do not seem to have clear criteria for identifying one response as more valid than another (King & Kitchener, 2004).

For example, four out of seven participants agreed both that “Facts are the strongest basis for a good decision” and that, “It is not a matter of facts or expert judgment, but a match between my values, interests, and skills and those of the job.” In another question meant to measure cognitive development, three out of seven agreed equally that all interpretations of a book could be correct and that some were closer to the truth than others.

Next, the survey confirmed participants’ level of development in the cognitive benchmark of Attitude toward Insecurity. It demonstrated that Warafa’s motivation in choosing a career was its perceived benefits to himself. While he indicated in the first two sections of the survey that he wanted to be a doctor to help people and make a good salary, he went on to say that the most important factor in his career choice was that his career would be interesting and fun. This further confirms that Warafa has only partially embraced the value of helping people; he is still primarily concerned with personal benefits.

Contradiction of Interview Data

In two important ways, the survey responses contradicted those of the interview data. First, students portrayed themselves as more independent in the surveys than they
did in the interviews (Pizzolato, 2007; Laughlin & Creamer, 2007). This supported the findings of previous research that students are sensitive to social expectations that they make decisions independently. Three out of seven participants downplayed the impact of their parents’ advice in the surveys after describing the importance of parental approval in the interviews.

While Fadumo said in the interview that her parents’ approval was important to her, she disagreed with the survey statement that she wanted her parents to approve of her career choice. She fully agreed with the statement that her parents wanted her to make her own decisions. This may suggest that she is sensitive to the expectations of her native culture that she make her own decisions after reaching the age of maturity. After attending high school in the United States, she may also have absorbed the American value of independence, causing her to deny a desire for parental approval on the survey even though she emphasized its importance in the interview.

In addition, some students who claimed a great deal of confidence in their decision-making on the survey exhibited lower levels of epistemological development in the interview. This supported previous research that confidence in decision-making does not necessarily indicate self-authorship (Pizzolato, 2007; Laughlin & Creamer, 2007). Warafa, for example, indicated full agreement with the statements that he was confident about his ability to set his own priorities about schoolwork, his personal life, and his career and that he had a plan for what he would like to do as a career. This confidence in decision-making can be an indicator of having a self-authored internal foundation (Pizzolato, 2007). However, his answers to most other questions on the survey indicated
an initial level of reasoning consistent with his answers in the interview. Warafa’s confidence seemed to grow out of the dogmatism of a dualistic way of knowing rather than the presence of an internal foundation.

Information on Benchmarks Not Addressed in the Interview

Although Bee did not directly address her Attitude toward Competence in the interview, her responses to the survey provide insight into her views in this area. While she slightly disagreed that she would be likely to change her decision if her parents disapproved of it, she slightly agreed that she would change her decision if her friends disapproved of it. These responses suggest that while she does not overly rely on her parents as authorities in her decision-making process, she may still rely on the approval of her friends and peers, indicating that, as her interview answers suggested, she is operating at an intermediate level of development (Kegan, 1994; Drago-Severson, 2004).

Discussion

The next section will explore the answers suggested by the interview and survey data to the research question: To what extent do these seven Asian and East African immigrant community college students between the ages of eighteen and thirty-one demonstrate self-authorship, the use of an internal system of beliefs and values to guide their learning, decisions, and relationships, and how did they arrive at this stage of development? This question is answered by first exploring subquestion a: Which levels of epistemological development do these participants demonstrate in which domains?

Table 4-15 reflects the findings of the surveys and interviews by summarizing the levels of thinking participants demonstrated in each benchmark of the three domains of
epistemological development: cognitive, intrapersonal, interpersonal. Using the rubrics offered by previous research, participants’ thinking in each benchmark was labeled as initial (1), intermediate (2), or early mature (3). These labels address participants’ dominant way of knowing in that benchmark based on the experiences they described. If participants used a more advanced level of thinking inconsistently, the more advanced level was placed in parentheses, indicating their potential in that benchmark. For instance, Fadumo described a more mature response to dissenting opinions in her decisions to marry and go to college than in her career decision. Therefore, her level in this benchmark is 2 (3). If a participant did not address a particular benchmark in the interview, then his or her score in that benchmark was given based on the results of the survey. However, the interpersonal benchmarks of Attitude toward Relationships, Conflict, and Advocacy were not addressed by the Career Decision-Making Survey (Creamer, personal communication, 2010). If participants did not address them in the interview, they were labeled N/A for Not Addressed. For instance, Bee did not describe any major decisions involving relationships or conflicts in relationships, while Warafa did not describe any conflicts in relationships.
Table 4-15. Survey and Interview Findings by Participant

<table>
<thead>
<tr>
<th></th>
<th>Warafa</th>
<th>Pele</th>
<th>Ifrah</th>
<th>Bee</th>
<th>Fadumo</th>
<th>Melissa</th>
<th>Pilar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competence</td>
<td>1</td>
<td>1 (2)</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2 (3)</td>
<td>2</td>
</tr>
<tr>
<td>Perspectives</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Authority</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2 (3)</td>
<td>2 (3)</td>
</tr>
<tr>
<td>Insecurity</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2 (3)</td>
<td>2 (3)</td>
<td>2 (3)</td>
<td>2 (3)</td>
</tr>
<tr>
<td>Morality</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Dissension</td>
<td>1</td>
<td>1 (2)</td>
<td>2</td>
<td>2</td>
<td>2 (3)</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Obstacles</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Cultural Identity</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Relationship</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>N/A</td>
<td>3</td>
<td>N/A</td>
<td>2</td>
</tr>
<tr>
<td>Mutuality</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>N/A</td>
<td>2</td>
<td>2</td>
<td>2 (3)</td>
</tr>
<tr>
<td>Conflict</td>
<td>N/A</td>
<td>1</td>
<td>1</td>
<td>N/A</td>
<td>2 (3)</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Advocacy</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2 (3)</td>
<td>2 (3)</td>
<td>2</td>
</tr>
<tr>
<td><strong>Average by Participant</strong></td>
<td>1</td>
<td>1</td>
<td>1.58</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2.41</td>
</tr>
</tbody>
</table>

Overall, Warafa, Pele, and Ifrah displayed a dominant epistemological level of initial, while Bee, Fadumo, and Melissa reasoned predominantly at the intermediate level, and Pilar appeared to be at the Crossroads between the intermediate and mature levels.

While she displayed some aspects of intermediate reasoning, she was beginning to work through them to define her own values.
Conclusion 1: Advancement of the Intrapersonal Domain

Overall, the group scored highest on the benchmarks of the interpersonal domain, suggesting that, in accordance with previous research, the process of ethnic identity development may encourage the development of self-authorship (Torres & Baxter Magolda, 2004; Torres & Hernandez, 2007). Table 4-16 summarizes the results of the Intrapersonal Benchmarks.

Table 4-16 Intrapersonal Benchmarks (all participants)

<table>
<thead>
<tr>
<th></th>
<th>Initial</th>
<th>Intermediate</th>
<th>Early Mature</th>
<th>Benchmark Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissension</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>1.86</td>
</tr>
<tr>
<td>Obstacles</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2.14</td>
</tr>
<tr>
<td>Cultural Identity</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Intrapersonal Domain Average: 2

Consistent with prior research, those at the most mature levels of thinking were not threatened by dissenting opinions, but were willing to consider them for their potential benefits and to answer and explain their views to dissenters, and to modify their views after weighing dissenting opinions (King et al, 2009).

Bee, Fadumo, and Pilar displayed a mature response to obstacles in their ability to acknowledge their own limitations and set goals that considered those limitations and persist in their goals by mentally rehearsing the ways in which the goal corresponded to their personal values, looking to past experiences of overcoming hardships to bolster their self-efficacy in new situations, identifying role models who had faced similar challenges, and consistently reminding themselves that the long-term benefits of the goal for themselves and their families would outweigh temporary sacrifices.
In their criteria for choosing what to accept or reject from different cultures, participants at the initial and intermediate levels were still heavily influenced by cultural formulas even if they were open to influences from other cultures. At the greatest extreme, Warafa saw other cultures as a threat to his own and would not consider or engage with them. However, Ifrah, Fadumo, and Pilar acknowledged positives and negatives about their own cultures and described weighing what to accept and reject from both American culture and their own culture. Ifrah and Fadumo, citing fewer opportunities for women in their culture, chose to pursue education and work opportunities in America. Fadumo also desired a relationship in which she could share equally in decision-making and her husband would not try to control her. Pilar described realizing that people in her culture tended to give up on their goals easily and choosing to make persistence, which she saw as an American value, part of her life. Three participants were beginning to shape their own criteria and values for choosing what to accept and reject from different cultures, and two had already defined several personal criteria. In accordance with previous research, this process of weighing cultural values and choosing which ones to integrate into their identity encouraged epistemological development (Torres & Baxter Magolda, 2004; Torres & Hernandez, 2007).

Conclusion 2: Lateness of the Cognitive Domain

The benchmarks of the cognitive domain developed later than those of the interpersonal domain for these participants. Table 4-17 displays the levels of thinking demonstrated in each benchmark of the cognitive domain as well as the average for the benchmark.
In the category of Attitude toward Competence, all but one participant, Melissa, preferred the advice of parents and close friends, even if these advisors had no prior experience and expertise with the subject in question. Even if they did consult more experienced others outside their inner circles, they still tended to prefer and weigh most heavily the advice of those closest to them because they believed that they cared most about them and knew what was best for them. Only Pilar consistently applied a mature approach to multiple perspectives in her attitude toward class discussions and her interactions with her children in decisions outside of the academic realm. While she actively sought out multiple perspectives for their inherent value, other participants at the initial and intermediate levels either avoided seeking multiple perspectives, sought them in order to gain approval for their decisions, or sought them only to fulfill an instrumental goal such as getting better grades on a test or homework assignment.

If mature levels of thinking were demonstrated in one of these benchmarks, they were demonstrated inconsistently. For instance, Melissa demonstrated a mature approach to authority when she questioned the opinions of doctors at the hospital, but also showed a preference for expert authority in the surveys, indicating that she may not consistently
apply her cognitive potential in this area. While she valued the multiple perspectives of her colleagues at the hospital, she did not seem to value the perspectives of her classmates as highly, as she saw class discussions primarily as a tool for achieving better grades.

On the surveys, all participants displayed a preference for expert authority by agreeing with statements about the importance of expert opinion in their decisions. They ranged from believing at one extreme that the opinions of experts never conflicted to believing that even if they did consider their own views and goals in their decisions, experts would have a better idea than they would about what was important for them.

Participants were still shaping the criteria they used to make academic and moral decisions; none of them consistently demonstrated the self-authored trait of using criteria they had developed in accordance with their sense of identity to weigh decisions. By and large, participants tended to derive security in academic decisions from the approval of their friends, as Warafa did in choosing a college, from the consensus of the majority, as Fadumo did in choosing classes, or from formulas they had developed for achieving good grades. Like other students in initial and intermediate levels of development, they were preoccupied with grades and saw them as evidence that the formulas they had applied were effective (Drago-Severson, 2004).

In moral decisions, participants generally used the effects of a decision on themselves or on the feelings of others to determine its rightness for them. They had not yet developed internal criteria that would allow them to weigh and evaluate the rightness of a decision before they carried it out, and they did not understand that at times, making
an ethically “right” decision could have negative effects on themselves or others. Consistent with previous research, those at the initial level of development perceived no conflict in making moral decisions, as they felt that every decision could be neatly labeled as right or wrong, and those at the intermediate level found themselves confused because basing their decisions on how they would affect others or how others would feel left them with an inconsistent measure of ethics that could not account for why they experienced negative feelings about a decision others were neutral or positive about (King & Kitchener, 2004). For instance, Bee could not understand why she was offended by what she perceived as disrespect for a teacher when the student and teacher did not seem to perceive it as offensive. By acknowledging that her divorce was the right thing to do even though it caused her and her husband pain and that decisions could be right even if they failed, Pilar seemed to be questioning her previously-held formulas for gauging morality, suggesting that she may be approaching the Crossroads in this benchmark (Baxter Magolda, 2001). If she moves from this state of questioning to an intentional process of defining her own criteria for morality, she will be on her way to achieving self-authorship in this area.

**Conclusion 3: Lateness of the Interpersonal Domain**

Interpersonal benchmarks, especially those involving advocacy and mutuality, averaged slightly higher than cognitive benchmarks (1.68 vs. 1.66), but were still later to develop than intrapersonal ones.

Table 4-18 summarizes the results of benchmarks in the Interpersonal Domain.
Table 4-18. Interpersonal Benchmarks (all participants)

<table>
<thead>
<tr>
<th></th>
<th>Initial</th>
<th>Intermediate</th>
<th>Early Mature</th>
<th>Benchmark Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationships</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1.83</td>
</tr>
<tr>
<td>Mutuality</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>1.67</td>
</tr>
<tr>
<td>Conflict</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1.8</td>
</tr>
<tr>
<td>Advocacy</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>1.43</td>
</tr>
</tbody>
</table>

**Interpersonal Domain Average: 1.68**

None of the participants who addressed the benchmark of Attitude toward Relationships in their interviews had fully achieved mature criteria for relationships.

Consistent with prior research, those at the initial level of development saw relationships as tools for helping them achieve their personal goals (Kegan, 1994; Drago-Severson, 2004) and tended to surround themselves with friends who were similar to them, as their identity was not secure enough to allow them to embrace difference (King et al, 2009).

Overall, participants tended to rely on criteria supplied by their parents and their cultures to help them identify positive relationships. However, Fadumo and Ifrah did deliberately seek out relationships that would be conducive to their goals and husbands who would allow them to get an education and work outside the home.

Similarly, none of the participants consistently applied mature principles of mutuality to their relationships. While Fadumo described mutuality in decision-making as one of her ideals in a relationship, she still allowed her own personal interests to dominate the advice she gave her husband. Although Pilar demonstrated mutuality in her relationship with her children, she did not recognize how a lack of mutuality may have contributed to the failure of her marriage. Instead, she continued to attribute it to busy schedules, thus falling back on the formula for relationships that her father had given her.
Only Pilar described a mature approach to conflict resolution in which the needs, goals, and perspectives of both sides were considered in understanding the conflict and finding a mutually beneficial solution. While Fadumo described listening to each other and talking things out as important elements of conflict resolution in marriage, she also stated that she sometimes “ignored and did not listen” to those who disagreed with her decisions. Thus, she applied this ideal inconsistently. At the initial level of development, Ifrah relied on elders in her family to resolve disagreements between her and her husband.

Finally, none of the participants displayed a fully mature understanding of racism and their responsibility to advocate for others. Pele, Ifrah, and Bee did not identify discriminatory behavior as racism: Pele described it as rude, Ifrah assigned it to ignorance, and Bee saw it as the inevitable disrespect that came with working in jobs that demanded little education. Pele denied his responsibility to advocate for others by blaming the victims for the discriminatory treatment and getting an education so he would not end up like them. Similarly, Bee determined to get a better education so she could get a job in which people would respect her. Ifrah at first tried to advocate for those from her culture by educating those who questioned her right to be in America, but when this did not work, she retreated into multiplicity, concluding that because “everyone has his own opinion,” she did not have to be concerned about the views of others. While Fadumo expressed a desire to advocate against female genital mutilation, she had not yet acted on this belief. Melissa was the only participant to identity discriminatory treatment as racism. Although she used several formulas and rationalizations to avoid advocating
for herself at first, she finally spoke up and defended herself and was surprised that she
felt good about the results instead of just “mean.” She even acknowledged that by
standing up for herself, she might have helped to improve the treatment of her coworkers
from different cultures. If she continues to make advocacy part of her life, she will be on
her way to achieving self-authorship in this area.

Subquestion b: Characteristics of Developmentally Effective Experiences

The next section will explore the answers suggested by the interview and survey
data to subquestion b: What types of pivotal pre-collegiate life experiences have created
dissatisfaction with previous ways of making meaning and led to participants’ current
levels of epistemology?

Previous researchers have defined a developmentally effective experience as one
that causes a participant to advance epistemologically in any domain (King et al, 2009).
In past research among mostly Caucasian college students, developmentally effective
experiences have helped students become more aware of and open to diversity, explore
their own beliefs, define their goals, needs, and values, and take personal responsibility
for their continued growth and learning (King et al, 2009). In this study of first-
generation immigrants from collectivist cultures, it was equally important that
developmentally effective experiences help participants define their own goals, needs,
beliefs, and values. In order to do this, however, they also needed to question the external
formulas provided by their cultures and families, experience a jarring that caused them to
acknowledge the reality of uncertainty, prioritize their personal values in light of this
uncertainty, and come to value relationships based on mutuality and equality. For
participants in this study, developmentally effective experiences prompted questioning, jarring, prioritizing, defining, and equalizing. One example from the data is given here for each characteristic, but more examples of each kind of developmentally effective experience can be found in Appendix G.

1. Questioning: Promoted the questioning of external formulas

Perhaps because they were all from collectivist cultures that emphasized the importance of the family, all participants described receiving from their families and from cultural elders a great number of external formulas about how to define and assess their values, relationships, and actions. All participants except Warafa described experiences that caused them to question the external formulas that had previously guided their approach to knowledge, relationships, and identity. When they resolved the disequilibrium created by these questions by actively seeking to define their goals and values apart from these formulas, they advanced epistemologically (Baxter Magolda, 2001; 2004).

*Example.* Overall, Pilar demonstrated the greatest change in epistemology over time; she also described the greatest number of developmentally effective experiences. One experience that challenged Pilar’s external formulas was her diagnosis of cancer. When she first received the diagnosis, Pilar was shocked because she had always followed a formula for staying healthy. She said, “I don’t drink, I don’t smoke, I eat right, and so when the doctor told me you’re not going home; you’re going straight to the hospital, I thought he was kidding.” This experience was effective because it caused her to realize the formula she had been on relying on to stay healthy was inadequate.
2. Jarring: Presented participants with the reality of uncertainty

Participants at the initial level of development relied on familial and cultural formulas for a sense of security and certainty. Developmentally effective experiences showed them that uncertainty was part of life.

*Example.* Although Pilar had often mentioned being sure of things in the past, cancer brought her face to face with the unpredictability of life. She explained, “It really hit me that things can happen to a person anytime. You don’t even know it. Who would think when I was sitting there that Friday feeling that lump that I would end up in the hospital the next Friday night? You never know what tomorrow may bring.”

3. Prioritizing: Presented a sense of urgency that catapulted participants out of passivity and fatalism by prompting them to prioritize and act on their personal values.

Every participant except Warafa described a present orientation to time that discouraged them from planning for the future and often encouraged a sense of passivity and fatalism. Developmentally effective experiences created a sense of urgency that caused them to abandon passivity by acknowledging and acting on personal values. This rejection of passivity for self-efficacy and replacement of a present orientation with a future one seemed especially crucial for enabling students from collectivist cultures to succeed in individualist Western ones.

*Example.* In the past, Pilar had concluded that encounters with difficulty meant it was “not the right time” to pursue her goal of going back to school. After her diagnosis of cancer, she realized, “Life is unpredictable, and I have all these things that I wanna do in life. I’d rather start now, act on it now.” Where she had once been willing to postpone
her goals indefinitely, she now told her children, “You better make the most of today and not wait for tomorrow.”

She explained, “I got really, really sick, and I thought, ‘Gee, I always wanted to finish college. That’s one of my desires,’ and I said, ‘What if I live only for a few years? I gotta get to school!’ I told my kids I wanted to get my degree or diploma before I die. I just can’t die without having that diploma or certificate. So I really inquired again and put everything together.”

Since dropping out of college during her sophomore year, Pilar had valued education and hoped to finish her degree. But although she acknowledged this goal, she did not prioritize it enough to act on it despite resistance. In three subsequent attempts to go back to school, she had become overwhelmed by financial obstacles, a lack of self-efficacy, and a sense of duty to her family and had retreated into passivity, justifying the postponement of her dream because it was “not the right time.”

However, the urgency of a potentially terminal illness caused her to move from fatalism and passivity to proactive action toward her goal and to persist in pursuing it even though many of the obstacles that had thwarted her in the past were even more intense. Where the financial and medical needs of one child had caused her to give up college in the past, she was now solely responsible for the needs of three children, as divorce had left her a single mother. In the past, balancing home and school had overwhelmed her, she was now adding the duties of a full-time job. However, the diagnosis of cancer caused her to recognize the urgency of pursuing her goals and to prioritize them over the obstacles she faced.
Because of this new understanding of urgency, Pilar gained the ability to prioritize her goals enough to act on them, even setting them above romantic relationships. In the past, she had dropped out of college to devote more time to her husband and son, allowing culturally determined roles of wife and mother to take precedence over her long-held-dream of finishing her education. Now, however, she allows this dream to take precedence over being in a relationship. While she does hope to be married in the future, she is currently putting that dream on hold for the sake of her education. When a man shows interest in her, she tells him, “It won’t be fair for you because I won’t have time for you right now. I just want to be fair.” She is determined not to allow relationships to compete with her schooling.

4. Defining: Prompted students to define their views of knowledge, identity, or relationships

Previous research has shown that as part of the journey to self-authorship, individuals answer the questions, “How do I know? Who am I? and What kind of relationships do I want?” in ways that correspond with their sense of self (Baxter Magolda, 2004). In addition to helping participants challenge the formulas provided by their families and cultures for answering these questions, developmentally effective experiences allowed them to define their answers in ways that were true to their internal foundations and encouraged self-authored ways of knowing.

This study’s findings that developmentally effective experiences promoted rejection of external formulas, prioritization of personal goals and values, and personal answers to questions about knowledge, identity, and relationships correspond to studies
of developmentally effective experiences among mostly Caucasian students (King et al, 2009). Among both groups, developmentally effective experiences helped students “explore and establish a basis for beliefs, choices, and action” and “develop a sense of identity to guide choices” which included taking responsibility for their own decisions rather than allowing others to make decisions for them (King et al, 2009, p. 112).

**Example.** Before her divorce, Pilar repeatedly dropped out of school because she believed she was not strong enough to balance family and academics. However, her experience of staying in the United States after her divorce caused her to redefine herself as a strong person. Looking back on this experience, she said, “I’m glad I didn’t [go back to my country] because I wouldn’t be where I’m at right now. Staying here really made me a strong person, and I’m proud of myself just knowing I survived through all the difficulties I have been through. I have the confidence now that I will [finish my degree] whether or not I have people helping me, because I think of myself now that I am a strong person, that I can tackle anything.”

Pilar’s divorce and her experience of choosing to stay in America on her own after the divorce convinced that she was strong enough to balance the demands of not only work and family, but school as well. Both of these experiences showed Pilar that she was a strong person who could survive in another country on her own, thus building her self-efficacy. These experiences of overcoming hardship helped her answer the question, “Who am I?” in ways that encouraged the further pursuit of her goals.

5. Equalizing: Introduced students to mutual decision-making and questioning authority
Because of the hierarchical structure of many of participants’ families and emphasis on submission to authority, making their own decisions often involved rejecting the decision-making structures they had grown up with after encountering mutual decision-making in new environments. Developmentally effective experiences for these students exposed them to mutual decision-making and encouraged them to embrace equality by questioning authority.

Example. Fadumo described how observing American marriages caused her to reassess her parents’ marriage and her expectations for her own. She explained, “In my parents’ marriage, my father has the last word. My mother gives him advice, but he can overpower her. In my marriage, we both make the decisions. It’s different. We are here now, so I like to share. I want him to share with me before he makes the decision, and he has been doing that. It’s the American way, they say, but if it’s right, I like it.”

Fadumo’s experiences of observing American marriages helped her answer the question “What kind of relationships do I want?” in a way that rejected the unequal power structure of her parents’ relationship and pursued a relationship based on mutuality. When describing her marriage today, Fadumo says, “My marriage is happy because my husband and I respect each other. We talk about disagreements. I know I have become more patient and willing to listen to his point of view without judging or thinking I am right. I know I might not be right.” This description reveals that perhaps because Fadumo sought out a relationship based on mutuality, her marriage itself has been developmentally effective. Within it, she has learned to suspend judgment, consider her husband’s perspective, and embrace uncertainty, acknowledging that her position
might not be right. Thus, this relationship has encouraged her growth cognitively, intrapersonally, and interpersonally.

Discussion

Conclusion 1: Impact of Ethnic Identity Development on Intrapersonal Self-authorship

In accordance with previous research, the process of ethnic identity development seemed to encourage the development of self-authorship (Torres & Baxter Magolda, 2004; Torres & Hernandez, 2007). As participants shaped their cultural identities, they were constantly challenged to weigh competing values from their own culture and American culture and decide which values they would accept. Many times, accepting American cultural values caused them to face resistance from those inside their culture; this resistance caused them to commit further to their own goals and values (Pizzolato, 2003; 2004; 2005). As a result, participants demonstrated the highest levels of development in the intrapersonal domain.

Conclusion 2: Impact of Familial and Cultural Formulas on Cognitive Self-authorship

Perhaps because of the strong influence of family in high-context, collectivist cultures, family-decision-making style and the cultural, relational, and academic formulas provided by the family seemed to influence participants’ late cognitive development. In the families of every participant except Pilar, decisions were made in a hierarchy determined by age and gender. Usually, the oldest male family member had the last word in decisions. Or, if the oldest family member was female, she shared decision-making authority with her oldest sons. In Warafa’s family, only those who had reached sixteen, the age of maturity, could participate in family decisions, and the opinions of those who
disagreed with the majority were ignored. In these families, the elders made decisions without explaining their reasoning to their children, and their children accepted their decisions without question, as they had been taught to do. Older children were involved in the decision-making process only if a decision directly concerned them.

This pattern may explain why participants in this study did not achieve maturity in many benchmarks of the cognitive domain. Because their cultural formulas stressed submission to elders and authority, and because they had not actively participated in the decision-making process before reaching late adolescence or young adulthood, they still tended to prefer their parents as advisors, accept without question the opinions of experts, consult only those in their inner circles, fail to grasp the value of multiple perspectives, be unfamiliar with criteria used to weigh decisions, and seek the approval of others, lacking confidence in their own ability to make decisions.

Conclusion 3: Impact of Familial Hierarchy on Interpersonal Self-authorship

The hierarchical structure of their families may also have influenced participants’ development in the interpersonal realm. Perhaps these participants did not value or consistently apply principles of mutuality because their relationships were so structured and defined by cultural expectations of gender. They may have lacked an understanding of conflict resolution because they had been taught to rely on elders to resolve conflicts for them or, in situations where they disagreed with those higher up in the hierarchy, to submit to them out of respect rather than working toward a solution that met the needs and honored the perspectives of both parties.
Additional Findings

The following findings do not directly answer the research questions, but do directly affect the study’s implications by suggesting factors that influence persistence, impede epistemological growth, and promote advocacy for self and others. Additional examples of each finding can be found in Appendix G.

Additional Finding 1: Abilities of Persistence

Participants’ descriptions of their responses to obstacles revealed the following abilities that characterize a mature response to obstacles and enabled these participants to continue pursuing their goals despite resistance.

*Ability 1: Set goals that consider personal limitations.* Participants demonstrated mature intrapersonal reasoning and persistence when they realistically acknowledged limitations and shaped their goals with them in mind (Baxter Magolda, 2001).

Example:

When Bee made her career choice, she recognized that she was living in a rural area and that most jobs in her previous field of study, environmental science, were in the city. She also acknowledged that because of her discomfort with English, she wanted a job that relied less on English fluency, and she ruled out teaching and business in favor of becoming a radiology technician. Even though she had always wanted to get a master’s degree, she understood that because her bachelor’s degree from her home country was not as trusted in the US and she needed to improve her English, she had to start with an associate’s. She enrolled at the community college and took only one English class at a time to make sure she had time to devote to it.
Ability 2: Look to past experiences of overcoming hardships and role models in similar situations. Another strategy that helped participants persist in their goals was looking to past and vicarious experiences to assure them that they could overcome the hardships they were facing.

Example:

Pilar’s confidence that she would be able to handle challenges in college came from prior experiences with difficulty: her divorce and her struggle with cancer. She explained, “Through experiences in my life, like my divorce and being sick, I’m like, if I was able to be strong in those situations, mentally strong, and here there’s help with my studies; you have teachers to help you, I told myself I would be able to be strong during school.” Past experiences with even greater challenges than the ones she was currently facing caused Pilar to believe she had what it took to accomplish her goals.

Ability 3: Remind themselves of long-term benefits that would outweigh temporary sacrifices. Participants who persisted in pursuing their goals also consistently reminded themselves that the benefits, both to themselves and to others, would be greater than the trials they were currently facing.

Example:

Fadumo described how reminding herself of the long-term benefits of going to college helped her persist through the resistance of those who told her she was abandoning her child and her culture by putting her son in day care to go to work and school. She said, “I tell myself that this is only temporary, that I am doing this for my son so I can be a model for him of having a career and working through challenges. I
think if I did not have a career and tried to tell my son to have one, he might not listen to me.”

Additional Finding 2: Attributes of Persistence

Examing the abilities that allowed students to persist identified the following attributes of persistence among these participants.

_attribute 1: Self-efficacy._ In order to replace passivity and fatalism with proactive action, participants had to believe that they were capable of achieving their goals.

Example:

By the time Pilar enrolled in college in 2009, she had become convinced that she could balance work and school. She said, “First [my mother-in-law] asked me, ‘Can you do it? Can you do work and school?’ I said, ‘I can do it,’ and she said, ‘Ok, I’ll be here for you.’” Reflecting on the role of her mother-in-law, Pilar said, ‘She helped me have confidence, but I had the confidence too that I will do it whether or not I have people helping me, because I think of myself now that I am a strong person, that I can tackle anything.”

Reflecting on her journey to self-efficacy, Pilar says, “Here [in America], I learned the ‘you-can-do-it’ attitude. Even if you fail, you can do it. Through all my experiences, my sister-in-law always tells me, ‘You can do it. You are a strong woman. You can do it.’ I just need to put myself in a mindset that I can do it. I know that a person can do it if they just stay focused and put their hearts and minds to it. It’s just a determination. If you fail once, it doesn’t mean it’s not for you. So you just have to climb up that ladder. I know that my first marriage failed, but I know deep in my heart,
someday when I find a man that is for me, that my marriage will succeed. It doesn’t mean that I will never get married because I failed that first marriage or I can’t be in a relationship because I failed that first relationship.”

Because of her newfound self-efficacy, Pilar was able to persist and adapt through difficulties in college. She admitted, “In the first month, I struggled. I had a hard time learning. But I told myself if I put time into learning and just studied and studied and just got my schedule straight, I would be able to adjust to the situation.” Instead of focusing on the level of difficulty and how she could avoid it, she focused on steps she could take to manage and work through it. By making sure she had enough study time, taking advantage of academic support, and maintaining realistic expectations of herself, she was able to conclude that “I’m really happy with my grades, and I think I do very well. I love college.”

Attribute 2: A future orientation. Participants who persisted were able to trade the present orientation they had grown up with for a future orientation in which they focused on why accomplishing the goal would be worthwhile in the long run. In the face of opposition from friends and relatives, they comforted themselves with the thought that in the end, even those who resisted their choices would come to see the wisdom of them. Example:

Fadumo described how, when she decided to go to college after marrying and having a baby, she encountered resistance from those within her culture, who accused her of abandoning her family and acting like an American. Even though she said she did not worry about what other people thought, she was concerned about the time she would
spend away from her family. To counter these worries, she reminded herself of the reasons she knew this decision was right for her: her baby would be safe, she would be back home with him by the end of the day, she would avoid feeling useless because she was earning money and getting an education, and she would be a better role model for her child in the future. The reasons she used to defend her decision to go to college seem to be rooted in her personal values, her understanding of herself and her needs, and the present and future needs of her child and may indicate a mature, self-authored choice. By relying on these self-authored reasons, she was able to continue pursuing her goals in the face of resistance, a characteristic of mature intrapersonal and interpersonal development (Baxter Magolda, 2001).

Attribute 3: A Sense of urgency that propelled participants from passivity and fatalism to proactive action. Understanding the limited nature of opportunity gave participants the courage to pursue their goals in the face of opposition and obstacles.

When asked why she had chosen to go back to college in the face of opposition from friends and relatives, Fadumo said, “Time flies. After ten years from today, I don’t know what’s gonna happen, I don’t know if I’m gonna live, but if I make change and do what’s right and go to school and finish school and get education, that person who tells me I’m doing wrong, I’m sure will say, ‘Oh my goodness! How did you do that? You did well!’” She explained, “My dream gave me this confidence, because before I could only dream, when I wasn’t here in America, but now I’m here and I go, ‘You’ve got the opportunity. Either you take advantage and do the right thing, or you sit here and it will
pass and time will run and more kids will come and I wouldn’t get the chance I have now.”

Fadumo knew, based on her experience longing for education in Africa, that opportunity was fleeting. She was able to distinguish between the temporary sacrifices of giving up time with her son and the permanent future benefits education would provide for her and for him. Her acceptance of life’s uncertainty and confidence in her goals and ability to achieve them are all characteristics of a mature level of intrapersonal development (King et al, 2009).

Fadumo’s future orientation contrasts sharply with Pele’s passive attitude toward time and opportunity, in which he takes things as they come and does not value planning for the future. Before getting a job at the factory, Pele did not understand the urgency of getting an education or the fact that it might not always be available to him. He valued making money in the present more than planning for his future. But Fadumo clearly understands that opportunities will not last forever and exist in only a limited window of time. She may understand this better than Pele because, as a woman in a culture where women are expected to stay home with children, she knows that the coming of more children will limit her opportunity for education. Perhaps Pele understood less about the limited nature of opportunity because, as the oldest son in an elite East African family, he had received the best education his family could afford in Africa. While he assuredly faced hardships, the inaccessibility of education was not one of them.
Additional Finding 3: Models of Persistence

This study also shed light on the kinds of role models that helped participants persist in their goals. It revealed that while the advisors students turned to in decision-making tended to be from their Inner Circle, those who served as role models did not have to be close friends, relatives, or even people from their cultures. They simply needed to have enough perceived similarity, or perhaps the same shared obstacle, to inspire participants that they did not have to be held back by the obstacle and could achieve the goal they desired. These role models were vital to students’ persistence because they helped them develop self-efficacy for what they could achieve if they continued to try.

Acquaintances. Pilar said, “I saw I could [go back to school] because there’s a lady I met at work who has seven kids, and she just got divorced too, and she’s going to school, and I’m like if she can do it, then for sure I can do it. I knew I had the desire to go, but she just really encouraged me. And the only person that helps her with her younger kids is her older kids, and here I have my mother-in-law willing to help out in many ways, and I’m like, you know what, I’m going for it. I guess it was the right time.” Even though Pilar continues to attribute this decision to the presence of a favorable time, her description makes it clear that knowing an acquaintance with similar obstacles and goals helped give her confidence that she could pursue her goals as well.

Strangers. Almost every participant described having a role model whom they did not know personally, but who gave them the courage to attempt their goals. Pele listened to co-workers at the factory and decided to return to school even though he had
no prior relationship with the men who advised him, and Ifrah started believing she could
go to college when she heard other high school students talk about college. Fadumo
believed she could leave her son and go to work and school because other women who
loved their children also did those things, and Pilar handled her illness and the stress of
balancing work, home and school by thinking of other sick people who had persevered
and other women trying to balance home and school. Even though these people did not
have a prior relationship with participants, they were able to serve as role models and
increase their sense of efficacy in pursuing their goals.

Additional Finding 4: Obstacles to Growth

While this study revealed several characteristics of developmentally effective
experiences, it also highlighted behaviors that rendered a potentially effective experience
ineffective in participants’ lives, causing them to stagnate in their development
(Pizzolato, 2005).

Obstacle 1: Tranquility. Ironically, a relative lack of obstacles kept participants
from recognizing uncertainty and caused them to feel that the formulas they had been
living by were effective, so there was no need to stop relying on them. This aligns with
previous research findings that high-risk students who encounter little resistance during
the college application process or who arrive in college on scholarships are less likely to
develop self-authorship (Pizzolato, 2005).

Example:

Warafa does not describe any developmentally effective experiences, perhaps
because he does not acknowledge any life events that have provoked disequilibrium or
uncertainty, and therefore, has not been forced to recognize the complexity inherent in decision-making or to question the external formulas that have guided his life so far.

Cognitively, he has built his life on crafting and applying a formula for academic success, and he is singularly focused on achieving good grades in order to be successful in the career he has chosen. Because of this, his most important pre-and post-college decisions center on academics, from deciding to improve his English skills to deciding to accept financial aid. Before college, he focused on getting good grades in order to earn a scholarship to come to the United States. Now that he is in the US on a scholarship, he focuses on getting good grades so he will not lose what he has worked so hard for.

So far, Warafa’s formula has been successful: his family had been fully supportive of all his choices, and his formula for academic success has enabled him to get the grades and the scholarships needed to go to America and pursue his goals. As a result, he does not see a need to stop relying on his formula.

Obstacle 2: Encountering racism without support. In this study, participants who stagnated in the face of discrimination failed to identify it as racism and tried to resolve it independently. Lacking the resources needed to respond to it effectively or advocate for themselves or others, they resorted to external formulas like multiplicity or meritocracy to try to resolve it. This supports the findings of previous research that identification of and response to racism are crucial to the epistemological development of students from cultural minorities (Torres & Hernandez, 2007; Pizzolato, 2003; Baxter Magolda, 2008).

Formula 1: Multiplicity. Ifrah felt that some Americans had stereotyped women in her culture as “slaves who did not have choices.” She explained, “When people say we
are slaves, I feel bad about that. I know we are not slaves. We can do whatever we want. But still they feel that way, so I say, ‘Oh, it’s their opinion. Just leave it.’”

Ifrah used multiplicity to avoid having to wrestle with beliefs that made her uncomfortable. Although she experienced and was hurt by prejudice and stereotyping, she did not acknowledge it as such, confront it, or advocate for an accurate view of women in her culture. Instead, she processed disequilibrium internally by acknowledging the negative feelings created by the stereotype, assuring herself that the stereotype was wrong and she did have choices, and then dismissing the stereotype through the multiplistic belief that because “every person has his own opinion,” offensive opinions can be ignored. However, even she admitted that using this formula was not working. She said, “I say this, but I am still not okay.” Without adequate support, she found that her formulas left her powerless instead of empowered to confront racism.

*Formula 2: Meritocracy.* When Bee experienced racism at a retail store where she worked, she comforted herself with the thought that if she improved her education and her English skills, people would come to respect her. She said, “I think people will accept me if I speak English well and have a good job. I feel like they will accept me like, ‘Wow, she’s from another country and she can do this job, and her English is really excellent.’” Hoping for future respect kept her from advocating for herself in the present. Although it allowed her to temporarily restore equilibrium, it also caused her to remain at an intermediate level of development. She was not pushed to the crossroads of defining her own beliefs and values about her identity that could withstand challenges from others.
Additional Finding 5: Steps to Advocacy

One participant’s journey to advocacy suggests steps that may lead students from regressing in the face of racism to advocating for themselves and others.

Step 1: Hope of redemption. When a patient at the hospital refused to allow Melissa to wait on him because she was “different,” her first impulse was to try to win him with kindness, hoping that he would redeem himself by recognizing the error of his ways. She explained, “I decided to respond in a good way...to show him I was not what he thought I was. I told myself, ‘If he says some stuff, if he doesn’t like you, that’s fine because he doesn’t know you. When he finally knows you, he’ll probably change his mind.’”

Step 2: Acknowledgement of reality. After months of trying to respond to the patient in the kindest way possible and come whenever he needed help, Melissa acknowledged reality. She said, “I realized he was not going to change his mind.” However, she also recognized the reality of American history. She knew that because most Americans were descended from immigrants, he had no right to judge or feel superior to her. She said, “Knowing what really happened, the history [of immigration in America], helped me to be strong.”

Step 3: Experience of advocacy. Bolstered by the confidence that came from her acknowledgement of reality, Melissa confronted the racist patient and experienced advocacy for herself. She explained, “I told him my father was American and he should not judge people for the way they look.” To her surprise, the man responded to this by apologizing to her.
Step 4: Embracing of advocacy. Because of her positive experience with advocacy, Melissa became convinced that it was worthwhile, both for herself and others. She said, “He is the first patient that I ever, ever said that to. I felt mean to myself, saying that, but on the other hand, I felt good because whoever’s on the next shift, we have other nationalities that will probably have him, and it will be better for him or her the next time they have him.”

Conclusion

This chapter has outlined the development of the rubric for assessing the qualitative interview data, including the benchmarks that emerged from the literature as well as those that were added to represent more completely the data. It also detailed the results of the interviews and surveys by giving samples from the data for each generalization within a benchmark, describing how survey results supported the interview data, and explaining the contradictions that emerged between the surveys and interviews. Conclusions were presented in answer to the research question and its two subquestions, and additional findings related to the study’s implications were described.

The next chapter will address the limitations of the study and present suggestions for future research in light of its findings. The implications of the study for college educators, administrators, and advisors will also be discussed.
CHAPTER 5: CONCLUSIONS

In this mixed methods case study of the epistemological development of seven East African and Southeast Asian immigrant college students between the ages of nineteen and thirty-one, ninety-minute semi-structured interviews were triangulated with a short background questionnaire and Laughlin and Creamer’s Career Decision-Making Survey to identify the level of epistemological development students had reached in the cognitive, intrapersonal, and interpersonal domains and the experiences that had challenged their ways of knowing and caused them to advance epistemologically in each domain.

Analyzing the interview results using constructivist grounded theory and comparing them with the results of the survey suggested that in accordance with previous research, the process of ethnic identity development seemed to encourage the development of self-authorship (Torres & Baxter Magolda, 2004; Torres & Hernandez, 2007). However, participants’ hierarchical family structures and emphasis on submission to authority in decision-making seemed to delay participants’ development in the cognitive and interpersonal domains. Additional findings related to the study’s implications suggest factors that influence persistence, impede epistemological growth, and promote advocacy for self and others. This chapter addresses the limitations of the
study and offers suggestions for further research. It also examines the implications of the study for college instructors, administrators, and academic counselors.

Limitations and Suggestions for Future Research

This study explored self-authorship among under-researched East African and Southeast Asian cultures. Since it was one of the first of its kind and involved such a small sample, future research must test its conclusions with larger groups of participants, especially in more longitudinal studies, as this one spanned a single semester. Interviewing students more than once over a longer time frame will also help to track epistemological development and identify developmentally effective experiences that occur once immigrant students begin college. It should be noted also that participants in the study volunteered to participate for extra credit in developmental writing classes or the change to learn, at the end of the study, about the thinking skills they possessed. The relatively small immigrant population at the college made random selection impossible and may have skewed the results.

In addition, the fact that the researcher did not share the cultural background of these students may have influenced their level of openness and the kinds of experiences they were willing to discuss. One of the participants in particular, Warafa, felt extremely threatened by outside influences; this may be why he chose to limit his description of pivotal life events to those that centered on academics. With an interviewer from his culture or religion, he may have been more open to discussing more personal experiences that portray his epistemological development in more depth. Similarly, gender differences between the interviewer and the two male East African participants, whose
families emphasized gender stratification, may have caused them to resist being vulnerable in the interviews and to assert more confidence in their cultural identity than they actually felt, which in turn caused them to be ranked as relying on the external formulas provided by their culture.

Although generalizable conclusions cannot be drawn from a sample as small as the one used in this study, it does offer intriguing questions for further research. Future investigators should continue to explore the impact of ethnic identity development on the development of self-authorship, especially among immigrants (Torres & Hernandez, 2007), as well as whether the immigration experience itself is developmentally effective in leading students out of External Formulas to the Crossroads. In addition, the impact of family decision-making styles on epistemological development, especially among students from collectivist cultures, must be explored in more depth, particularly with students from other East African cultures. Finally, because this study supports the findings of previous research that privilege can impede epistemological development by shielding students from dissonance (Pizzolato, 2003; Torres & Hernandez, 2007), research with students from patriarchal and matriarchal cultures should explore whether the privileged gender is slower to develop epistemologically. In addition, future research should examine the impact of fatalism and a present orientation on epistemological development and whether a future orientation encourages persistence in and prioritization of one’s goals.
Implications

The findings of this study have direct implications for college instructors, administrators, and support staff. This section will describe underlying assumptions and principles that facilitate cognitive development and promote effective pedagogy. It will present diagnostic tools to assess students’ current levels of reasoning and pedagogical strategies to respond to the needs of students at every developmental level. Finally, considerations in curriculum design will be proposed to help students persist through internal and external obstacles and advance in their intellectual development.

Core Assumptions

This study’s conclusions, as well as those of previous research, suggest that in order to promote self-authorship, college faculty and personnel should begin with three core assumptions (Baxter Magolda, 2001):

1. *Epistemologically, that knowledge is complex and socially constructed.* Because students from collectivist cultures may be accustomed to relying on the elders in their families to make decisions for them, they may lack experience developing personal criteria for weighing choices. They must learn not only how experts in a discipline construct knowledge, but also how to construct what they personally believe.

2. *Intrapersonally, that the self is central to knowledge construction.* Although immigrant students from collectivist cultures may possess strong identities based on the obstacles they have overcome and their experiences weighing two cultures, they must understand how this sense of identity can be used to help them construct knowledge in the classroom.
3. Interpersonally, that authority and expertise are shared in the mutual
construction of knowledge among peers. Because students from collectivist cultures may
struggle to see themselves or their peers as authorities in knowledge construction,
instructors must be willing to share authority with students by involving students in the
process of weighing and critiquing perspectives and deciding which to support (Baxter
Magolda, 2001).

Principles for Educational Practice

These three foundational assumptions give birth to three principles for educational
practice.

1. Learners must be validated as knowers capable of making knowledge claims.
When this happens, learners at the initial stage will begin to realize that they do not
always need to follow authority, students at the intermediate stage can build confidence
in their personal values, and mature learners can solidify their belief systems (Baxter
Magolda, 2001).

2. Learning must be situated in learners’ experience. Using learners’ experiences
as a starting point encourages students at the initial stage to begin reflecting on them,
intermediate learners to strengthen their concepts of identity, and those who are mature to
actively process their experiences as they build on and apply their internal foundations
(Baxter Magolda, 2001).

3. Learning must be defined as mutually constructing meaning. Inviting learners
to share authority and expertise will challenge those in the initial stage to participate in
choosing the direction of their learning, help intermediate learners to become more aware
of their internal voices, and guide those who are mature to further explore and define their belief systems.

Assessing Epistemological Development

To gain an initial idea of students’ epistemological levels and design appropriate instruction, a writing assignment based on this study’s interview protocol can be used. In either narrative or expository writing, participants can reflect on an important life decision, describing the criteria that were important to them as they made the decision, the people they consulted for advice, how their family and friends reacted to their decision, and how they evaluate the decision today. A sample assignment description can be found in the Appendix H. Appendix I contains a sample brainstorming tool for the assignment that encourages students to consider their personal values and criteria rather than relying only on the advantages and disadvantages of each choice.

Instructors can also use the Career Decision-Making Survey as a supplement to the writing assignment. Using the survey alone to assess self-authorship is not recommended because of the complex nature of epistemological development and the impossibility of measuring it with a single quantitative instrument (Baxter Magolda, personal communication, February 2010). When used to complement a writing assignment, however, the survey can be a valuable assessment tool (Laughlin & Creamer, 2007; Pizzolato, 2007). In order to clarify participants’ meaning in these assessments, instructors can discuss them in conferences, either as part of the grade for the assignment or for extra credit.

Pedagogical Strategies
Three specific pedagogical strategies can be used to implement the three assumptions and principles in the classroom in a way that can be especially effective with students traditionally marginalized and disengaged in school (Baxter Magolda, 2001):

1. **Interactive lecture.** In this method, the instructor introduces a phenomenon and invites learners to interpret data related to it, guiding them as they make knowledge claims based on their interpretations. For example, a science instructor might present the concept that one side of a mountain gets less rain than the other and ask students to use their knowledge of science to hypothesize about the causes of this (Baxter Magolda, 1999).

2. **Investigating together.** This form of shared research begins when the instructor provides a topic, then invites learners to explore different aspects of it and share with the class the insights and hypotheses they have gleaned from their research. Based on the results of their research, the class constructs knowledge claims about the topic. For instance, a math teacher might have small groups investigate different aspects of a proof, then construct knowledge claims about why the proof works (Baxter Magolda, 1999).

3. **Narrative.** Building on learners’ experiences naturally lends itself to the use of narrative, as “students use relevant personal experiences to shape a narrative of the emerging self” (Maher & Tetrealt, 1994, qtd. in Baxter Magolda, 2001, p. 215). An instructor can introduce a topic using narratives, then invite learners to craft their own narratives exploring how the topic relates to their lives. Collectively, the class can interpret the narratives in the context of the issues being studied and develop knowledge
claims based on their interpretations (Baxter Magolda, 2001). For example, an education class could begin a unit on philosophies of education by reading nonfiction narratives describing educational experiences. After making observations about the philosophies of education present in the narratives and their effects on students, they could write their own narratives about philosophies they have seen in action. Finally, the class could evaluate philosophies that seemed to be more effective than others (Baxter Magolda, 1999).

**Transformative Curriculum**

The findings of this study have implications not only for pedagogy, but also for curriculum development. Because recognition of and response to racism play such a crucial role in students’ development, and because support is so essential in this process, instructors must aid students in discussing and responding to racism so that they are prepared to identify it and empowered to respond in a way that honors their cultural identities and allows them to advocate for themselves and others (Torres & Hernandez, 2007; Pizzolato, 2003; Baxter Magolda, 2008). A 2009 curriculum developed by Lynne Ackerberg, Pat Eliason, and Jenise Rowecamp to help college instructors promote meaningful discussions of race and racism can be found at


Because support is so essential in this process of confronting and responding to racism and forging an ethnic identity, students must be connected with mentors to help them build enough self-efficacy and awareness to handle the disequilibrium caused by racism without regressing back into external formulas (Torres & Hernandez, 2007). This
study suggests that those mentors do not have to be from their own culture, but can be people from any culture who have encountered similar obstacles. Students must be exposed to the true stories of those who have overcome tremendous obstacles in order to achieve their goals.

While people who serve as role models may not have to have close relationships with students, those who serve as advisors do. Instructors and student services staff members must make a concerted effort to build relationships with students so that they will be allowed into their inner circles and able to help when a crisis of identity arises (Torres & Hernandez, 2007). Rather than giving them direct advice about academic and career choices, they should work with students to identify and trust their personal goals, values, and interests. A Reflective Conversation Gude created by Baxter Magolda and King (2008) can help to facilitate these kinds of discussions.

Conclusion

This study of epistemological development among students from under-researched collectivist cultures is meant to help instructors design curriculum, pedagogy, and advising practices that accommodate students’ current levels of development, consider the experiences that have shaped them, and support and challenge them as they reach their cognitive potential. By taking the time to understand students’ developmental levels and how they have attained them, college instructors and support staff can help students not only achieve academic learning objectives of critical thinking, persistence, and motivation, but also develop an internal foundation for success in every aspect of life beyond the classroom.
APPENDIX A. Preliminary Background Questionnaire

This questionnaire was developed by the researcher to gather basic demographic information about participants and verify their eligibility for the study (Pizzolato, personal communication, 2010).

1. **Basic background information.** This asked about participants’ native countries and languages, ages, and when and why they immigrated to the US in order to establish a basic understanding of participants’ backgrounds and confirm their eligibility for the study.

2. **Education** contained questions about the levels of education they had achieved in their home countries and the disciplines they had studied as well as how many semesters they had completed at the community college and the levels of education their parents attained. These questions were asked because research suggests that expertise in the rules and criteria of one discipline can contribute to epistemological development (Kitchener & Fischer, 1990; King & Kitchener, 2004) and that learners are more likely to embrace multiple perspectives in the social sciences than in authority-driven fields like math and engineering (Palmer & Marra, 2005). Finally, the researcher inquired about their parents’ educational levels to gain further insight into how parental education may have influenced family decision-making (Pizzolato, personal communication, 2010; CDMS, 2006).
3. **College experience.** These questions explored why participants had enrolled at the community college, how their families responded to their decisions to enroll, and the greatest difficulties they had encountered since beginning college because of previous research findings that understanding motivation is key to identifying self-authored decisions and that encountering resistance from family and friends may forge the development of self-authored identities (Pizzolato, 2003; 2007). Below is the complete background questionnaire:

Background Questionnaire                                        Pseudonym__________________

**A. Basic Background Information**

1. What is your native country?

2. Which languages do you speak fluently?

3. Please write in your age:

4. Why did you decide to immigrate to the US? Check as many reasons as apply.
   
   ___ War or violence in my country
   ___ Religious freedom
   ___ Job opportunities
   ___ Educational opportunities
   ___ Join family members already here
   ___ Create a better life for my family
   ___ Other (Please write in):

5. In what year did you come to the United States? (Please write in.)
B. Education

6. For how many semesters have you attended this college, including Spring 2010?

7. What was your highest level of education before coming to the US? (Circle one.)
   1. Less than high school
   2. High school or equivalent
   3. Associates/community college degree
   4. Bachelor’s degree
   5. Masters, doctorate, or professional degree like medical doctor, veterinarian, or lawyer
   6. Other (Please write in):

8. If you have university or graduate degrees from your home country, please write in the degrees you received:

   Associates/community college degree in__________________.

   Bachelor’s degree in_________________________________

   Master’s, doctorate, or professional degree in____________________________.

9. What is the highest level of education completed by your father/male guardian? (Please circle one.)
   1. Less than high school
   2. High school or equivalent
   3. Associates/community college degree
   4. Bachelor’s degree
   5. Masters, doctorate, or professional degree like medical doctor, veterinarian, or lawyer
   6. Other (Please write in:)

10. What is the highest level of education completed by your mother/female guardian? 
   1. Less than high school
   2. High school or equivalent
   3. Associates/community college degree
   4. Bachelor’s degree
   5. Masters, doctorate, or professional degree like medical doctor, veterinarian, or lawyer
   6. Other (Please write in):
C. **College Experience**

11. Why did you decide to come to this college? Mark as many reasons as apply.

- [ ] To improve my English
- [ ] To get a two-year (associates/community college) degree
- [ ] To prepare for a four-year college or university
- [ ] To get a better job
- [ ] Other (Please write in):

12. How did your family feel about your decision to start college? (Please choose one.)

- [ ] They supported me completely.
- [ ] They supported me, but had some concerns.
- [ ] Some family members supported me, but others did not.
- [ ] They did not support me.
- [ ] My decision to go to college did not matter to them.
- [ ] They did not know about my decision.
- [ ] Other (please write in):

13. What have you found to be difficult about attending college in the US? Please mark all that apply.

- [ ] Finding time to do homework
- [ ] Balancing school and work
- [ ] Balancing school and family
- [ ] Getting financial aid for college
- [ ] Getting to and from the college
- [ ] Reading in English
- [ ] Writing in English
- [ ] Listening to lessons in English
- [ ] Speaking English in class discussions
- [ ] Differences between teaching styles in the US and my native country
- [ ] Differences between assignments given in the US and my native country
- [ ] Differences between writing styles in the US and my native country
___Knowing what teachers want me to do
___Making friends at the college
___Other (Please write in):
APPENDIX B. The Career Decision-Making Survey

This section contains the portions of the Career Decision-Making Survey (2006) used in the study. Questions specific to Laughlin and Creamer’s original study about factors influencing women’s choices to major in science or technology were omitted (Creamer, personal communication, 2010).
## SECTION 2: GENERAL CAREER QUESTIONS

### 2-1. YOUR CAREER INTERESTS

Please list the three jobs that you are most interested in. (Write in your replies)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2.</td>
<td>3.</td>
</tr>
</tbody>
</table>

What are the reasons these jobs interest you? (Write in your reply)

### 2-2. IMPORTANT FACTORS IN CAREER CHOICE

The following questions are about factors that influence career choice. Circle the number that shows how important each item is in your choice of a career.

<table>
<thead>
<tr>
<th>How important are the following factors in your choice of a career?</th>
<th>Completely Unimportant</th>
<th>A Little Important</th>
<th>Somewhat Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Opportunity to help people</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Good salary</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Ability to balance work and family</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Opportunity to interact with others</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Job security</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. High status or prestige</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. Opportunity to solve interesting problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. Opportunity to use creative skills</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. Pleasant working environment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. Flexible hours</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
2-3. Of the following factors that influence career choice, which is the single most important one to you? (Mark only one).

1. Challenging work
2. Good salary
3. Ability to balance work and family
4. High status or prestige
5. Interest/fun
6. Quality of work life and environment
7. Opportunity to make a difference in society
8. Job security

2-4. YOUR PARENTS’ OPINIONS OR VIEWS

The following questions are about parents’ or guardians’ attitudes. Circle the number that indicates how much you disagree or agree with the following items. Circle NA if the item does not apply to you.

<table>
<thead>
<tr>
<th>Item Description</th>
<th>NA</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is important to my mother/female guardian that I have a career.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>It is important to my father/male guardian that I have a career.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My mother/female guardian has a clear idea about careers that would suit me.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My father/male guardian has a clear idea about careers that would suit me.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My parents/guardians encourage me to make my own decisions about my future career.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I would like my parents to approve of my choice of career.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My parents have encouraged me to talk to others about career options.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My parents have encouraged me to explore a variety of career options.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>When we disagree, my parents will listen to my point of view.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

2-5. SOURCES OF CAREER INFORMATION

The following questions concern sources of career information. Circle the number that shows how often you have discussed career options with the following groups of people.

<table>
<thead>
<tr>
<th>How often have you discussed your career options or plans with others?</th>
<th>Never</th>
<th>Once or twice</th>
<th>Several times</th>
<th>Many times</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mother/female guardian</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Father/male guardian</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Teacher or professor</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Counselor or advisor</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Other family members</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Male friends</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. Female friends</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. Significant other</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. Employer or boss</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. Family friends</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
2-7. CREDIBILITY OF INFORMATION SOURCES

The following questions are about how you judge the credibility of advice you receive. Circle the number that shows how likely you are to consider advice about careers offered by different people.

<table>
<thead>
<tr>
<th>How likely are you to consider career advice when it is offered by these people?</th>
<th>Very Unlikely</th>
<th>Unlikely</th>
<th>Likely</th>
<th>Very Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mother/female guardian</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Father/male guardian</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Other family members</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Teacher or professor</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Counselor or advisor</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Male friends</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. Female friends</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. Significant other</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. Employer or boss</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. Family friends</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

2-8. RESPONSE TO INPUT

The following questions are about reaction to advice or the influences of others. Circle the number that shows how much you disagree or agree with each of the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I find it helpful to listen to the input of others before I make an important decision.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. When I make an important decision, I often seek the input of members of my family.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. When I make an important decision, I often seek the input of my friends.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. I like to have my parents input before I make a big decision.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Even when the advice is contradictory, I try to consider the information people gave me before I make a big decision.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
2.9. MAKING DECISIONS AND SETTING PRIORITIES

The following questions are about setting priorities and making decisions. Circle the number that shows how much you disagree or agree with each of the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am confident about my ability to set my own priorities about schoolwork.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. I am confident about my ability to set my own priorities about my personal life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. I am confident about my ability to choose a career.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. I am unsure about my ability to make my own decisions about a future job.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. I am unsure about my ability to make my own decisions about my personal life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. If my parents disagree with a decision I have made, I am likely to change my decision.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. If my close friends disagree with a decision I have made, I am likely to change my decision.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. I am most likely to trust the advice of people who know me best.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. There are times when even authorities are uncertain about the truth.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. When it comes to choice of a career, my parents know what is best for me so I am inclined to go with what they suggest.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11. I have given a good deal of thought to choosing a career that is compatible with my values, interests, and abilities.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12. I have a plan for what I would like to do as a career.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

2.10. DIVERSE VIEWPOINTS AND DECISION MAKING

The following questions are about your viewpoints toward diverse situations. Circle the number that shows how much you disagree or agree with each of the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My primary role in making an educational decision, like the choice of a major or career, is to</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>1-1 acquire as much information as possible</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>1-2 seek direction from informed experts</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>1-3 make a decision considering all the available information and my own views</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>1-4 consider my own views</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. If a teacher or advisor recommended a career in a field that I have never considered before,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-1. I would listen, but I probably wouldn't seriously consider it because I have already made a decision.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2-2. I would try to understand their point of view and figure out an option that would best fit my needs and interests.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2-3. I would give it some thought because they probably know better than I do about what might suit me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2-4. I would try to explain my point of view.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
## 2.10. DIVERSE VIEWPOINTS AND DECISION MAKING – Continued

The following questions are about your viewpoints toward diverse situations. Circle the number that shows how much you disagree or agree with each of the following statements.

<table>
<thead>
<tr>
<th></th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. To make a good career choice good choice about a career, I think that</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-1. facts are the strongest basis for a good decision.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3-2. it is largely a matter of personal opinion.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3-3. experts are in the best position to advise me about a good choice.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3-4. it is not a matter of facts or expert judgment, but a match between my values, interests, and skills and those of the job.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

4. In my opinion, the most important role of an effective career counselor or advisor is to ____________

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4-1. be an expert on a variety of career options.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4-2. provide guidance about a choice that is appropriate for me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4-3. help students to think through multiple options.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4-4. direct students to information that will help them to make a decision on their own.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

5. When I am in the process of making an important decision and people give me conflicting advice, ____________

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5-1. I get confused.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5-2. I don’t listen.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5-3. I try to listen and consider all of their advice carefully.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5-4. I try to make a judgment if they are someone I should listen to.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

6. When people have different interpretations of a book, I think that ____________

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6-1. the author has done a poor job of communicating the true meaning.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6-2. some books are just that way. It is possible for all interpretations to be correct.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6-3. only the expert(s) can really say which interpretation is correct.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6-4. multiple interpretations are possible, but some are closer to the truth than others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

7. Experts are divided on some scientific issues, such as the causes of global warming. In a situation like this,

<p>| | | | | |</p>
<table>
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</tr>
</thead>
<tbody>
<tr>
<td>7-1. I rely on the experts to tell me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7-2. I would have to look at the evidence and come to my own conclusions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7-3. I think it is best to accept the uncertainty and try to understand the principal arguments behind the different points of view.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7-4. I try not to judge as long as different scientists have different opinions on these kinds of issues.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
APPENDIX C. Semi-structured Interview Protocol

Below are the questions used in the semi-structured interviews. All participants were asked the series of questions listed here with the exception of the Post-College Experience/Decision, as some participants had just begun college and could not think of a significant decision they had made. Additional follow-up questions such as “Tell me more about that experience,” “What do you mean by _____?” or “How did that affect you?” were used when more clarification was needed (Pizzolato, personal communication, 2010).

1. Pre-College Experience/Decision

   Please tell me about an important decision you have made or experience you have had before coming to college.

   How did you make this decision? or Why was this experience important to you?

   Whom did you talk with about this decision/experience?

   Why did you choose to talk with these people?

   What advice did each of these people give you?

   Whose advice did you think about most carefully and why?

   Whose advice did you think about least carefully and why?

   Did anyone give you advice that went against what you had heard from others? If so, how did you handle it?

   Did anyone disagree with the decision you made or how you handled the experience? If so, what did you do?
What was most important to you when you made this decision or in the midst of this experience?

How did your family respond to your decision?

How did your friends respond to your decision?

How did the results of this decision/experience affect you?

When you thought about those effects, what did you tell yourself? (How did you make sense of/process them?)

If you could do this over, would you make the same decision again or how would you handle this experience?

2. College Decision Process

How did you become a college student?

When did you decide college was possible for you?

How did you choose to come to this college?

What was most important to you when you made this decision?

Whom did you talk with about this decision?

Why did you choose to talk with these people?

How seriously did you consider each person’s perspective?

Did anyone give you advice that went against what you had heard from others? If so, how did you handle it?

Did anyone disagree with the decision you made? If so, what did you do?

How did your family respond to your decision to come to college?

How did your friends respond to your decision to come to college?

Where were you living at the time that you applied for college?
Did anyone help you with the admissions process?

Think about the last school you attended before coming to college. What was a typical week at that school like for you?

What did you expect college to be like?

What made you think that college would be like this?

So far, how does your first year compare to your expectations?

How is college going for you so far academically?

How is college going so far socially?

For many people, college is a time of meeting people who are different from them and think differently. Has it been that way for you?

3. Career Decision Process

Which options are you considering for your major?

What careers are you thinking of pursuing with these majors?

What has your decision process been like so far?

Whom have you talked with about this decision?

Why did you choose to talk with these people?

What advice did each of these people give you?

Whose advice are you thinking about most carefully and why?

Whose advice are you thinking about least carefully and why?

Did anyone give you advice that went against what you had heard from others? If so, how did you handle it?
Did anyone disagree with the decision you made or how you handled the experience? If so, what did you do?

What does your family think about your career choices?

What do your friends think about your career choices?

How strongly do you feel about your choice of career? (How likely do you think you will be to change it?)

What is most important to you as you make this decision?

Do you have any concerns about this career? If so, how are you handling them?

4. Post-college Decision/Experience

Please tell me about an important experience you have had or decision you have made since coming to college.

How did you make this decision? or Why was this experience important to you?

Whom did you talk with about this decision/experience?

Why did you choose to talk with these people?

What advice did each of these people give you?

Whose advice did you think about most carefully and why?

Whose advice did you think about least carefully and why?

Did anyone give you advice that went against what you had heard from others? If so, how did you handle it?

Did anyone disagree with the decision you made or how you handled the experience? If so, what did you do?

What was most important to you when you made this decision or in the midst of this experience?

How did your family respond to your decision or how you handled this experience?

How did your friends respond to your decision or how you handled this experience?
How did the results of this decision/experience affect you?

When you thought about those effects, what did you tell yourself? (How did you make sense of/process them?)

If you could do this over, would you make the same decision again or how would you handle this experience?

5. Cultural Influences

Which ethnic group do you most closely identify with?

What does your culture mean to you?

What are some of the greatest differences you have seen between your native country and the US?

What parts of American culture have you chosen to make part of your life?

What are some traditions from your native culture that you have chosen to make part of your life in America?

What are some traditions from your native culture that you have changed since coming to America?

In general, how do you decide what you will accept or reject from American culture?

6. Family Decision-Making

How did your family make decisions?

How much did your family involve you in their decisions?

Do you think you will use this way of making decisions with your own family? Will you make any changes to it?
APPENDIX D: Benchmarks from the Literature in each Domain

Below is a more detailed explanation of the benchmarks that emerged from the literature, either from the compiled rubrics or from other studies of self-authorship, along with examples from the interview data to illustrate how these benchmarks fit the data.

Cognitive Benchmarks

Cognitive Benchmark 1: Attitude toward Competence

<table>
<thead>
<tr>
<th>Initial</th>
<th>Intermediate</th>
<th>Early Mature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inner Circle</td>
<td>Personal Characteristics</td>
<td>Contextual Criteria</td>
</tr>
<tr>
<td>Advisors from close circle of family and friends</td>
<td>Advisors’ personal qualities more importance than level of competence</td>
<td>Evaluated advisors based on competencies needed to address the situation</td>
</tr>
</tbody>
</table>

Among collectivist students at the initial level of cognitive development, family and known peers are most trusted as the source of knowledge and information (Torres and Hernandez, 2007). At the intermediate level, they evaluate their advisors according to personal characteristics, and they conclude that “good” teachers are those who care about them, support them, and are kind, patient, and encouraging (Drago-Severson, 2004). By the mature stage, their sources of knowledge have shifted from trusted family members and peers to their own internalized formula shaped by the context of the decision and the combination of personal and cultural values they have chosen (Torres & Hernandez, 2007).
For each major decision or experience addressed in the interview, participants described whom they had talked with about the experience, why they had chosen to talk with these people, whose advice they had considered most carefully, and why they had preferred that person’s advice. Their answers to these questions were coded as Attitude toward Competence. For example, when students said they trusted their parents’ advice most in their college decision process because their parents “knew them better than anyone else” and “knew what was best for them” even though they had never been to college, this was coded as a marker of an initial level of development (Torres & Hernandez, 2007).

Cognitive Benchmark 2: Attitude toward Multiple Perspectives

<table>
<thead>
<tr>
<th>Initial</th>
<th>Intermediate</th>
<th>Early Mature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rejection</td>
<td>Comparison</td>
<td>Evaluation</td>
</tr>
<tr>
<td>Reject perspectives</td>
<td>Recognize how other perspectives are similar to or different from their own</td>
<td>Evaluate multiple perspectives according to personally defined criteria</td>
</tr>
<tr>
<td>different from theirs as wrong</td>
<td></td>
<td></td>
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</tbody>
</table>

Knowers at the initial level of cognitive development are unable to consider the perspectives of others even though they know others have different views (Drago-Severson, 2004). Because they assume that knowledge is certain, they label all perspectives as either right or wrong and are more likely to reject perspectives differing from their own (King et al, 2009). In the intermediate stage, they begin to recognize and understand multiple perspectives, to make choices that consider the needs of others, and to consider how their perspectives are similar to or different from others’ (Torres & Hernandez, 2007; Drago-Severson, 2004). By the mature stage, they are able to use multiple frames of reference to understand alternate worldviews (King et al, 2009). They
justify their beliefs by comparing multiple perspectives evaluated with criteria such as what is most reasonable or probable according to current evidence, and they are willing to re-evaluate their beliefs in light of new evidence (King & Kitchener, 2004).

One participant explained, “If you make your decision by yourself, sometimes you don’t make a good decision, so I usually talk to people, get some opinions. I know what I want, but I have to ask them if it’s fine, ask for their opinion. If my mom and my brothers say it’s good, then I have some confidence. If everyone says that, then I can go for it. But if they say, ‘That’s bad,’ then I have to ask another one. It’s gonna be confusing. So I have to have some approval.” Because of this participant’s need for approval and confusion in the face of disagreement, she was coded at an intermediate level in attitude toward multiple perspectives.

Cognitive Benchmark 3: Attitude toward Authority

<table>
<thead>
<tr>
<th>Initial</th>
<th>Intermediate</th>
<th>Early Mature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submission</td>
<td>Qualification</td>
<td>Evaluation</td>
</tr>
<tr>
<td>Submit unquestioningly to</td>
<td>Authorities possess some, but not all, valid</td>
<td>Evaluate authorities according to internal criteria</td>
</tr>
<tr>
<td>authority</td>
<td>perspectives</td>
<td></td>
</tr>
</tbody>
</table>

At the initial stage, learners accept absolutely the viewpoints of authority, believing that these views are certain and never conflict (King & Baxter Magolda, 2005). Therefore, they justify their own beliefs based on their “correspondence with the views of an authority figure” (King & Kitchner, 2004, p. 7). In the intermediate stage, a growing awareness of uncertainty and of diversity in worldviews prompts them first to assume that knowledge claims are relative to the individual and then gradually to develop a “personal process for adopting knowledge claims” (King et al., 2009, p. 110). They begin
to consider that authorities possess some, but not all, valid perspectives (Torres & Hernandez, 2007). At the mature stage, they generally follow their own standards and values to reach their goals, but also recognize and seek out others’ expertise when needed. They see teachers are one source of knowledge among others, including their classmates. They are willing to offer feedback to help teachers improve, and they desire for teachers to help them meet their goals (Drago-Severson, 2004).

One participant described her view of authority by saying, “In the past, I used to think the doctor was always right.” But after working at the hospital and seeing how doctors used trial and error to diagnose and treat patients, she sought out nurses who could correctly and accurately question the doctor’s authority. This experience deepened her understanding of the fallibility of authority and the necessity of questioning it, causing her to be coded as mature in this benchmark.

Cognitive Benchmark 4: Attitude toward Insecurity

<table>
<thead>
<tr>
<th>Initial</th>
<th>Intermediate</th>
<th>Early Mature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formulas Security in following formulas to achieve goals</td>
<td>Possibilities Consider multiple paths to goal achievement</td>
<td>Evaluation Use personal criteria to select the most logical path to goal achievement</td>
</tr>
</tbody>
</table>

At the initial level, knowers base life on concrete rules that must be followed in order to do things the right way (Drago-Severson, 2004). Thus, they perceive only one path to the fulfillment of their goals, and they have trouble recognizing alternate routes. They are inclined to take the easiest or most recommended route to goal achievement, even if it is not the one best suited to their goals, because they do not explore different choices or interests. By the intermediate stage, however, they acknowledge that there could be more
than one path to achieving their goals, and they actively seek out other choices to consider. In the mature stage, they move from making choices proposed by others to designing their own plan of action and advocating for themselves and others. They recognize their own limitations and make alternative plans that consider those limitations. They independently conceive their goals, try to consider all possible ways to accomplish them, and consider multiple perspectives to see which one makes the most sense considering their goals, talents, and resources (Drago-Severson, 2004). Their choices are weighed within the context of their internal values, culture, and life plan (Torres & Hernandez, 2007).

Learners’ view of security also affects the way they view knowledge. Students at the initial level see knowledge as an accumulation of facts that can be used to achieve their goals. Good grades are seen as proof that they can succeed by following the right formula. Because they believe knowledge is an accumulation of facts rather than a lifelong process, they conclude, “Once I get it, then I have it” (Drago-Severson, 2004, p. 29). At the intermediate level, they start to see knowledge and education as tools for meeting cultural and social expectations, being accepted into social roles, and feeling a greater sense of belonging. They recognize that they have learned when a teacher affirms the learning they sense they have achieved (Drago-Severson, 2004). However, a mature learner seeks knowledge out of an internal curiosity, recognizing that learning enriches life and allows people to achieve greater competence, understand themselves and the world more deeply, and participate in society. These learners see education as the path to becoming who they want to be, not just achieving their goals. They know independently
when they have learned something, and they are able to teach it to others (Drago-Severson, 2004).

When describing his academic goals, one participant explained, “When a person is starting a certain thing, he has to have the main thing he wants to do...that’s all. I have not made any difficult decisions since coming to college because I came to college only to have my career, and that’s what I wanted to do. Once I decided on my career, I didn’t have to worry about anything else.” He spoke often of “knowing what is best” and not questioning his decisions once he had made up his mind. For example, he said that he was “100% sure” of his career choice “because the reason why I came to college is only to have a certain career. It’s not to change my career choice.” Further, he stated that he had no concerns about this career choice because “I know what is important and what is good to me. It is good to me because I know my decision, as I made before, and it has a lot of advantages, as I said.” Because this student saw every decision as having one correct choice, he did not perceive any conflict in making decisions. He was operating from an initial level of development (King & Kitchener, 2004).

Cognitive Benchmark 5: Attitude toward Morality

<table>
<thead>
<tr>
<th>Initial</th>
<th>Intermediate</th>
<th>Early Mature</th>
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<tbody>
<tr>
<td>Dualism</td>
<td>Relativism</td>
<td>Contextualized Criteria</td>
</tr>
<tr>
<td>Every decision is either right or wrong</td>
<td>Morality is relative to the individual.</td>
<td>Because values can conflict, the right decision depends on the application of personal criteria to the context.</td>
</tr>
</tbody>
</table>
Generally, students at an initial level of development do not struggle with moral decisions. Since they assume that every moral question has only one right answer, they experience “little or no conflict in making decisions about disputed issues” (King & Kitchener, 2004, p. 7). They adamantly defend their beliefs as personal opinions because they have no other basis on which to evaluate a belief as credible. They fail to recognize not only the link between beliefs and evidence, but also the connection between actions and consequences. As a result, negative consequences do not necessarily motivate them to change their views or behavior (Torres & Hernandez, 2007). In the beginning of the intermediate stage, they still see moral and knowledge claims as relative to the individual (Kitchener & King, 2004). Over time, they begin to develop personal criteria for evaluating the worth of a decision (King et al, 2009). By the mature stage, they have defined their personal beliefs in the context of existing knowledge, decided whether to make religious faith a part of their lives, and begun acting on that choice. They are able to defend their beliefs in light of negative consequences. However, they understand that establishing beliefs is an ongoing process based on changing contexts. Because they realize there is more to learn, they are not dogmatic about their beliefs.

One student stated that his understanding of right and wrong was based on the teaching of the Quaran and the sheiks who helped him understand it and that there has never been a time when he was unsure of the right thing to do because he “knows what is good and bad” to him, and his religion tells him what is right and wrong. Because he relied entirely on the external formulas provided by religion in moral decisions, he was coded as demonstrating an initial level of development in this benchmark.
Intrapersonal Benchmarks

Intrapersonal Benchmark 1: Attitude toward Dissension

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<tr>
<th>Initial</th>
<th>Intermediate</th>
<th>Early Mature</th>
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</thead>
<tbody>
<tr>
<td>Rejection</td>
<td>Relativism</td>
<td>Engagement</td>
</tr>
<tr>
<td>Reject dissenting views</td>
<td>Consider dissenting views,</td>
<td>“Openly engage in challenges to their views</td>
</tr>
<tr>
<td>outright</td>
<td>but ultimately dismiss them because “everyone has</td>
<td>without being dominated by them</td>
</tr>
<tr>
<td></td>
<td>his own opinion”</td>
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Because they are threatened by difference, learners at the initial level resist challenges to their own beliefs, often preferring to reject them outright rather than to consider them (King et al., 2009). In the intermediate stage, they become more willing to consider alternate views, but because of their inclinations toward multiplicity, are likely to dismiss them on the basis that “everyone has his own opinion.” By the mature stage, they have a set of internally grounded beliefs and values that allow them to openly engage in challenge (King et al., 2009). They are able to evaluate others’ expectations and criticism according to their personal standards (Drago-Severson, 2004).

One student described how, when she decided to go to college after marrying and having a baby, she encountered resistance from those within her culture, who accused her of abandoning her family and acting like an American. Even though she said she did not worry about what other people thought, she was concerned about the time she would spend away from her family. To counter these worries, she reminded herself of the reasons she knew this decision was right for her: her baby would be safe, she would be back home with him by the end of the day, she would avoid feeling useless because she
was earning money and getting an education, and she would be a better role model for her child in the future. She explained, “I tell myself that this is only temporary, that I am doing this for my son so I can be a model for him of having a career and working through challenges. I think if I did not have a career and tried to tell my son to have one, he might not listen to me.” The reasons she used to defend her decision to go to college seem to be rooted in her personal values, her understanding of herself and her needs, and the present and future needs of her child and may indicate a mature, self-authored choice.

By relying on these self-authored reasons, she was able to continue pursuing her goals in the face of resistance, a characteristic of mature intrapersonal and interpersonal development (Baxter Magolda, 2001).

Intrapersonal Benchmark 2: Attitude toward Obstacles

<table>
<thead>
<tr>
<th>Initial</th>
<th>Intermediate</th>
<th>Early Mature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surrender</td>
<td>Tension</td>
<td>Persistence</td>
</tr>
<tr>
<td>Give up in the presence</td>
<td>External influences cause</td>
<td>Able to work around obstacles and persist through them to achieve</td>
</tr>
<tr>
<td>of obstacles</td>
<td>internal conflict</td>
<td>their goals</td>
</tr>
</tbody>
</table>

Learners at the mature stage are able to prioritize competing values (Drago-Severson, 2004). Although they may still experience internal battles, these will be caused not by external influences, but by the conflict between internal priorities. Even in the midst of this struggle, they still maintain a strong internal foundation (Baxter Magolda, 2001). In the initial stage of self-authorship, Trusting the Internal Voice, they can distinguish between reality and their reaction to it. They acknowledge what they cannot control, but take ownership of how they make meaning of it. They know when to make something happen and when to simply allow it to happen. They begin to trust the internal
voice and the commitments they are making because of it, and they become aware of and confident in internal voice in every dimension and context, from work and relationships to parenting. Although they may experience times of confusion, fear, and despair when some aspects of identity have to be reconstructed, personal reflection and an established support system can mediate times of confusion. In this way, individuals at the initial stage of self-authorship are able to make the best of life, acknowledging the less than ideal, but maintaining hope. Consequently, they are able to accept unfulfilled dreams and disappointments (Baxter Magolda, 2001).

As individuals advance to the stage of Building the Internal Foundation, they develop a framework to guide their beliefs and reactions to reality. In this framework, all dimensions are gradually integrated into cohesive identity. As learners act according to their internal foundations while building them, they use the feedback from these actions to refine them. In the final and highest stage of self-authorship, Securing Internal Commitments, individuals cross over from understanding to living their internal commitments. Living their convictions becomes natural, and they move forward with faith and trust in them, giving them a greater sense of freedom. At the same time, however, they are increasingly open to reconstructing parts of identity as new experiences and evidence present themselves (Baxter Magolda, 2001).

One participant stated that she had always wanted to do two things in life: to get married and to become a teacher. However, when she did marry as a sophomore in college, she found that she was not used to balancing schoolwork and housework, as her mother had always done all the cooking and cleaning so she could focus on her studies.
Her parents advised her to quit school so she could put her family first, saying, “You can go back someday when your kids are all grown up.” Following their advice, she decided to quit school so she could stay focused on her husband and the responsibilities of taking care of their son and their home. She explained her rationale this way: “It’s always family is the first priority. I put myself in that position, so I have to make sure that I do my responsibilities as a wife and mother. I guess this idea came from my family because my mom doesn’t really work and my dad always says to stay focused as a wife and mother. She went to college two years also and she didn’t finish. She didn’t pursue going back because her family grew too, and my dad just kinda decided to make sure she stays home and focuses on us and him.”

This decision to drop out of college was not a self-authored choice between conflicting values, but rather a reliance on the external formula her father had required her mother to follow. These formulas, in turn, were dictated by cultural tradition in which strict gender roles required women to be homemakers and men to be providers and asked to sacrifice their education once they became mothers. Therefore, this response to obstacles suggests an initial level of development.

Intrapersonal Benchmark 3: Attitude toward Cultural Identity

<table>
<thead>
<tr>
<th>Initial</th>
<th>Intermediate</th>
<th>Early Mature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formulas</td>
<td>Consideration</td>
<td>Evaluation</td>
</tr>
<tr>
<td>Base identity on cultural formulas; view different cultures as wrong</td>
<td>Willing to consider the beliefs of different cultures</td>
<td>Acknowledge positives and negatives of their culture and others; weigh aspects of culture based on personal values</td>
</tr>
</tbody>
</table>
Students reasoning at the initial level are naive about different cultures and values and inclined to view differing cultural perspectives as wrong (King & Baxter Magolda, 2005). Their beliefs and values about their cultural identity come from what others have told them are important, and they depend on others to interpret their experiences and affirm their sense of self (King et al, 2009; Kegan, 1982). As a result, students at this level define their cultural identity by geographic markers or what their family has taught them about their culture. They maintain a strict cultural dichotomy, avoiding influences from other cultures, and fail to evaluate their own assumptions about other cultures (Torres & Hernandez, 2007).

In the intermediate stage, they become more willing to suspend judgment while interacting with diverse others and reflecting on their views (King& Baxter Magolda, 2005). At the mature stage, they recognize their own cultural reality and internalize choices between cultures to create their own principles (Torres & Hernandez, 2007). At the mature stage, they make deliberate choices about what they accept and reject from their own culture and others in order to create an informed cultural identity. Further, they are able to integrate these cultural choices in everyday life as their personal cultural choices become embedded in their behavior (Torres & Hernandez, 2007). They also reevaluate life experiences using their internal voice and find themselves reacting differently than before, reflecting on how new experiences add to their sense of identity (Baxter Magolda, 2001).

One participant said that she chooses what to accept or reject from American culture based on a trial and error method in which she tries something new, experiences
the effects of it, and then either absorbs it into her life or returns to her old way of doing things. As an example, she describes partying with American and African friends during her senior year of high school and “losing the culture” by acting like “a typical American teenager.” Ultimately, she concluded that this decision was wrong for her because she was losing her closeness to her parents and her good grades, and she felt that she was “off balance” because she was “only worried about how to make happy my friends and do the things they wanted me to do.” This student had enough awareness of her own values and identity to recognize that she was sacrificing it in order to please her friends. However, her reliance on trial and error in cultural decisions may indicate that even though she has started to define her personal values, she may not be aware of those values enough to activate and use them to weigh cultural decisions before she makes them. If she is not making a conscious choice to weigh and consider values and bring her decisions into line with them, she is most likely in an intermediate level of development (Baxter Magolda, 2001).

As they define their identity, immigrants have the additional challenge of making meaning of societal images of people from their culture, which can be positive or negative. Initially, they tend to internalize some of these negative stereotypes, such as the belief that people from different races will never get along or be equal (Torres & Hernandez, 2007). They fail to recognize how these beliefs and values are influenced by social class and racial and ethnic identity (King & Baxter Magolda, 2005). In the intermediate stage, they recognize stereotypes and make deliberate choices about how these stereotypes will influence their identity. At the mature stage, they understand the
social factors that create stereotypes and work to challenge those that do not fit with their understanding of themselves (King & Baxter Magolda, 2005).

One participant classified himself as fully African and stated that he had never questioned his ethnic identity, that his culture affected everything he did, and that he connected so closely with his culture because he had grown up around African people. This seems to indicate a lower level of development because it arises from association rather than a careful weighing of values. His understanding of his culture moves beyond external features to values of collectivism and its emphasis on family, hospitality to strangers, and fatalism, not planning for the future because a person never knows when he or she will die. He states that he still holds this view of time and the future despite having to stick to a schedule to survive in American culture.

In fact, his attitude toward American culture is largely pragmatic. He admits that he “made some changes to succeed in this culture:” he started adhering to a schedule so that he would not miss opportunities to get a job or an education, he started learning about other cultures so he could get along with people at work, and he stopped fighting in order to stay out of trouble. He adopted the behaviors he needed to survive in a new culture, but he did not allow them to change his thinking. His unwillingness to consider the beliefs of other cultures on a meaningful level shows that he may still be relying on external formulas provided by his family and friends for his cultural identity and has not yet begun to define his own identity using values from other cultures as well. Therefore, he was coded as initial in this benchmark (King & Baxter Magolda, 2005).
Interpersonal Benchmarks

Interpersonal Benchmark 1: Attitude toward Relationships

<table>
<thead>
<tr>
<th>Initial</th>
<th>Intermediate</th>
<th>Early Mature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formulas</td>
<td>Tension</td>
<td>Balance</td>
</tr>
<tr>
<td>Choose relationships based on similarity to self or formulas provided by others</td>
<td>Begin to recognize tension between personal desires in a relationship and the expectations of others</td>
<td>Manage the expectations of others and choose relationships that respect personal needs.</td>
</tr>
</tbody>
</table>

Learners at the initial level interpersonally tend to avoid anything outside of their comfort zone (Torres & Hernandez, 2007). As a result, they form relationships with people who are much like them, and they depend on these relationships for identity and affirmation (King et al, 2009). Because learners’ concept of self depends on relationships at this stage, students from collectivist cultures are especially susceptible to allowing the needs and expectations of their families to dictate their choices (Kegan, 1982; Torres & Hernandez, 2007).

In the intermediate stage, they begin to incorporate diversity into their social circles, often because a change in environment puts them in greater contact with diverse others. While students from collectivist cultures will never completely ignore family expectations, they begin to manage them rather than be driven by them, using multiple perspectives (Torres & Hernandez, 2007). At the mature stage, they rely less on their parents’ thinking about important relationships and seek to put themselves in contexts that will help them act on their self-authored sense of self. They learn when to express and suppress their internal voice, recognizing and changing negative aspects of a relationship to be more consistent with informed cultural identity (Baxter Magolda, 2001;
Torres & Hernandez, 2007). They also recognize how the blending of cultures that form their “Americanized identity” translates to their friendships (Torres & Hernandez, 2007).

One participant described the qualities she looked for in a husband by saying, “I always adored my father, and I wanted my husband to have my dad’s perspective, the way he is, and he has a job and I know he’s able to provide for me, and he’s a good person; he jokes around, and I can see a little resemblance between his character and my father’s. He has a strong religious belief; he’s a very grounded Christian. He has a job and the provision is there just like my dad, and so I thought this is just perfect.”

At the time she chose her husband, this participant was following the external formulas provided by her religion, her culture, and her relationship with her father. She thought her husband would be “perfect” for her because he shared her religion, fulfilled the cultural gender role of provider, and reminded her of her father, who had always given her a formula for the success of a relationship. Her father told her that if she put family first by making time for them and fulfilling her responsibilities to them, then her relationships would succeed. Her strict adherence to the formulas he provided may indicate an initial level of development (Torres & Hernandez, 2007).
Interpersonal Benchmark 2: Attitude toward Mutuality

<table>
<thead>
<tr>
<th>Initial</th>
<th>Intermediate</th>
<th>Early Mature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Benefit</td>
<td>Approval</td>
<td>Interdependence</td>
</tr>
<tr>
<td>See people as assets or obstacles to accomplishing personal goals</td>
<td>Subordinate personal needs to gain others’ approval</td>
<td>Ground relationships in mutual understanding and appreciation of differences</td>
</tr>
</tbody>
</table>

Learners at the initial stage are incapable of forming relationships based on mutuality. Their identity is dominated by their personal needs, and they cannot fully consider the needs and interests of others. Rather, they consider others’ needs only as far as they impact personal needs, and they see people as either assets or obstacles to accomplishing their goals. Their attitude towards others is, “What do you have that can help me?” and vice versa (Drago-Severson, 2004).

In the intermediate stage, learners become more able to empathize with others and subordinate personal needs for their sake. However, because their sense of self is overshadowed by their need for approval, they tend to form independent rather than interdependent relationships in which they acknowledge the perspectives of others, but cannot coordinate them with their own (King et al, 2009). Instead, they make decisions based on loyalty to others and concern with how their decisions will affect others’ acceptance and approval of them (Drago-Severson, 2004; Love & Guthrie, 1999). They feel “responsible for others’ feelings and [hold] others responsible for their own feelings” (Drago-Severson, 2004 p. 29). By the mature stage, learners have an internal sense of self that is not threatened by new experiences, so they are able to establish mutual relationships (Baxter Magolda, 2001). They are able to control and reflect on their emotions instead of blaming them on others (Drago-Severson, 2004). They are learning
to make mutual decisions, recognizing that relationships enrich life, but do not require redefinition of identity. In the mutual relationships they pursue, both partners express their desires and work together to meet them (Baxter Magolda, 2001). They maintain meaningful, diverse interdependent relationships grounded in understanding and appreciation for differences (King et al, 2009).

One participant described looking for friends he could count on to care about his problems and worry about him and said it was important to be unselfish and help his friends because “if you give help, then you will get help.” This emphasis on helping others for the benefits he can receive from them is characteristic of an initial level of development (Drago-Severson, 2004).

Interpersonal Benchmark 3: Attitude toward Conflict

<table>
<thead>
<tr>
<th>Initial</th>
<th>Intermediate</th>
<th>Early Mature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoidance</td>
<td>Fear</td>
<td>Acceptance</td>
</tr>
<tr>
<td>Avoid conflict by claiming to be saddened rather than angered</td>
<td>Fear conflict as a threat to the relationships that define them</td>
<td>See conflict as inevitable and necessary for growth</td>
</tr>
</tbody>
</table>

In the initial stage, learners may completely subsume their personal interests and desires for the sake of the relationships that define them. They tend to avoid conflict at this stage because they do not acknowledge anger or the violation of personal rights. They are more likely to describe themselves as feeling sad or empty, rather than angered, by conflict (Kegan, 1982).

In the intermediate stage, reliance on others for identity and validation causes learners to fear conflict as a threat not only to their relationships, but also to their concepts of self (Kegan, 1994; Drago-Severson, 2004). In the mature stage, however,
they accept conflict and differences as necessary opportunities for growth (Drago-Severson, 2004)

One student described her approach to resolving conflict in this way: “I tell my kids, ‘Put yourself in their shoes. How would you feel? Would you think that’s best in that situation? No? Then don’t do it.’ When there’s conflict it involves two people, and you can’t just see things from your point of view. You have to step in the other person’s shoes to see their point of view. And once you see both sides, then you will be able to put the puzzle together. You see what would be the best to do, the best action, how you’re gonna fix things. Seeing both views, you’ll be able to find a solution.” This emphasis on understanding both sides in a conflict seemed to indicate that she was willing to consider both sides in a conflict and find a solution that honored both parties. This suggests a mature approach to conflict in relationships.

Interpersonal Benchmark 4: Attitude toward Advocacy

<table>
<thead>
<tr>
<th>Initial</th>
<th>Intermediate</th>
<th>Early Mature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unaware</td>
<td>Exploration</td>
<td>Engagement</td>
</tr>
<tr>
<td>Unaware of racism or the need to advocate for others; concerned primarily with self</td>
<td>Recognize the presence of racism and begin to explore causes and solutions</td>
<td>Become actively involved in advocating for others</td>
</tr>
</tbody>
</table>

At the initial stage, learners “view social problems egocentrically” (King et al, 2009, p. 110). They are “still concerned primarily with pursuit and satisfaction of their own interests” and “not yet able to own membership in a wider community than the one defined by self-interest” (Love & Guthrie 1999 p. 69). Because they surround themselves with similar others, they experience little dissonance that would require them to examine the meaning of racism or oppression. Although they may acknowledge the
existence of it, they do not challenge or make meaning of it (Torres & Hernandez, 2007). They lack awareness of how societal factors affect the attitudes and behavior of their group and its interactions with other groups (King et al, 2009). In the intermediate stage, however, they recognize the reality of racism and the need to grapple with it (Torres & Hernandez, 2007). They begin to explore how societal conditions affect the way their group interacts with others (King et al, 2009). By the mature stage, they are able to consider their social identities of race, class, and gender in a global and national context (King & Baxter Magolda, 2005). They recognize that education can be a mechanism for social mobility or a tool of repression, begin to advocate for others from their culture, and desire to give back to the community and help others (Torres & Hernandez, 2007). They understand the ways individual and community practices affect social systems (King & Baxter Magolda, 2005) and are willing to work for rights of others (King et al, 2009).

In his job at the factory, one student described seeing factory workers blame immigrants for their own mistakes because they did not speak English well enough to defend themselves and seeing immigrants accept verbal abuse out of fear of losing their jobs. However, he did not acknowledge this treatment as racism or perceive his own responsibility to advocate for those who experienced it. Instead of calling this behavior racist, he called it “rude.” Although he admitted the situation was “sad,” he was not motivated to speak up for those who could not speak for themselves. Instead, he concluded that it was not his responsibility to intervene because a supervisor might misinterpret his words as a challenge to authority. Instead, he shifted the blame for mistreatment to the immigrant workers who “could actually do something about it” by
getting an education and learning English. He said, “If they want to survive in America, they should know the language.” In this way, he seemingly internalized negative stereotypes of immigrants and failed to recognize the circumstances that might keep them from getting an education or learning English. When evaluating this experience, he focused only on his desire to avoid the fate of those he met by getting an education so that he would not have to work at the factory forever. This indicates that he is still at an initial level of development (Drago-Severson, 2004).
APPENDIX E. Additional Examples of Developmental Levels

This section contains additional data samples from the interviews to verify the levels of development participants demonstrated in each domain.

Cognitive Benchmark 1: Attitude toward Competence

Initial Stage

Generalization 1: Inner circle 1. Participants preferred advisors within close circle of friends and relatives, especially when they had previous experience making the same decision or had cultural capital.

In his college decision process, Warafa chose close friends as advisors because of their past experience with college. Fadumo chose to consult female relatives and close friends about her marriage because they had experienced marriage themselves.

Generalization 2: Parental preference. Participants prized parental advice most because of cultural formulas elevating the parents’ role and wisdom and necessitating respect for parents.

Even though he consulted his friends with prior college experience, Warafa did not consider their advice as seriously as his parents’ because they had not known him as long and therefore, he reasoned, were less able to help him choose a college major. He saw his parents as the foremost authority in his college decision process despite the fact that they had never been to college because he felt that they knew what was best for him and had been working hard to help him mature.
In her choice to finally go back to college in the US, Pilar confided in her mother-in-law because she saw her as wise, partly because of her cultural value that “usually older people are wise.”

Intermediate

Generalization 3: Parental preference 2. Attributes of parents or closeness of relationship were equal to or more important than parents’ level of experience.

In her decision to marry during college and later drop out of school, Pilar consulted her friends who had experience with college, but weighed her parents’ advice most heavily, even though they had not gone to college themselves, because of her closeness to her family, their history of giving wise advice and being “there for her,” and the high value her father placed on education. She also confided in her aunt because of how close their relationship was and her history of “always being there” for Pilar in childhood.

Fadumo stressed the importance of parental approval in her decision to become a nurse. Although she consulted nursing advisors when choosing classes, she valued her mother’s opinion most, even though she had not been to college, because she felt she knew more than she did and her approval was very important.

However, there were notable differences between Fadumo’s choice to value her mother’s advice and Ifrah’s. Instead of saying her mother’s approval was important in her culture, as Ifrah had done, Fadumo said it was important to her, which may indicate that this is a value she had personally internalized. In addition, Fadumo’s mother’s advice “not to jump to conclusions and to be patient” encouraged her to suspend
judgment and be willing to consider multiple perspectives in her marriage, thus promoting her cognitive development. In this case, preferring her mother’s advice did not hinder her development because the advice itself encouraged her to move toward a more mature way of knowing.

Generalization 4: Inner circle 2. Preferred the advice of other relatives if parents did not have relevant experience, but still prioritized the closeness of the relationship and the personal attributes of the advisor over the advisor’s competency to address the decision. Unlike all participants described thus far, Bee and Melissa did not weigh their parents’ advice most heavily in their decisions to attend college. Bee recognized that because her parents did not have experience with college, she would need to turn to other, more experienced advisors. She chose to consider her cousin’s advice most seriously because he had gone to college and was teaching at an Asian university at the time she decided to attend one. Similarly, Melissa chose to weigh her sister’s advice most in her college choice because even though her parents had gone to college in Asia, her sister had grown up in the United States and gone to college there.

Similarly, Fadumo said that in choosing advisors, she looked for “someone expert, someone that knows better, a teacher, a close friend, a boss, someone that I know, like a nice person that I know I can talk to because she knows better.” Fadumo valued advisors not only for their experience, but also because she “knew” them, suggesting a prior relationship, and because they were “nice.”

Mature

Generalization 5: Outer circle. Willing to look outside of inner circle for advice
Only one example was present in the data.

Generalization 6. Contextual criteria. Evaluated advisors based on competencies needed to address the situation

Only one example was present in the data.

Cognitive Benchmark 2: Attitude toward Multiple Perspectives

Initial

Generalization 1: Tools. Valued multiple perspectives as tools to help them accomplish academic and professional goals

Pele values learning about other cultures so that he will be better able to work with others in his job, to succeed in America, and to “have less trouble with [people].” He described how learning that Americans prefer to fight with words rather than fists had kept him out of trouble at work and school.

Intermediate

Generalization 2: Approval. Sought multiple perspectives out of a need for approval in order to have confidence in decisions

Bee consistently sought affirmation from the interviewer that her viewpoint was correct. When describing how hard her aunt and uncle worked to support the family, she said, ‘So it’s important for me to take care of myself. It is, right?’ When describing how shocked she was about the disrespectful tones American students used with their teachers, she asked, “Do you agree with me?”

Generalization 3: Inconsistency. Began to weigh multiple perspectives based on personal goals and values, but sometimes reverted to lower views of them.
When Fadumo consults college advisors about her choice of classes, she says, “I see if what they tell me I can do, I see if it fits my schedule, if it’s right, then I take it. I go around and ask people, and if most people say, ‘Oh, that’s a good [class]; that class is so easy,’ then I take it. I always trust people, what they say, if they had a bad experience.” Fadumo’s consideration of whether advisors’ suggestions fit with her goals may indicate that at an intermediate level of development, she is beginning to weigh multiple perspectives based on her goals and values. Like others at an intermediate developmental level, however, she does not consistently put her goals first; she also allows the consensus of the majority to help her decide if a class is “right” for her. In this instance, she determines if a class is “right” and “good” if everyone says it is easy. Her preference for easy classes may indicate that cognitively, she is preoccupied by grades and hesitant to take the risk of getting a bad grade in a more difficult class. This view of knowledge as the key to good grades, characteristic of an initial way of knowing, may be causing her to inconsistently apply her cognitive potential to weigh advice according to her goals (Drago-Severson, 2004).

**Mature**

**Generalization 4: Growth and transfer.** Wanted to learn from multiple perspectives and apply them to new situations.

Only one example was present in the data.
Cognitive Benchmark 3: Attitude toward Authority

**Initial**

Generalization 1: Blind submission. Accepted decisions of authorities without questioning or even understanding them

Warafa stated that the Quran and the religious leaders who interpreted it were infallible authorities whose opinions never conflicted because there was only one Quaran and only one possible interpretation of it.

**Intermediate**

Generalization 2: Inconsistency. Need for approval sometimes overshadowed sense of personal authority

Fadumo openly challenged cultural traditions by leaving her baby to go to work and school, but still said it was very important to her that her mother approved all of her choices.

**Mature**

Generalization 3. Questioning. Believed authorities were fallible and should be questioned

Melissa described how her concern with the doctor’s decision not to operate on her mother caused her to pursue a CNA license and a job at a hospital in order to find out for herself if their decision was correct. She said, “In the past, I used to think the doctor was always right.” But after working at the hospital and seeing how doctors used trial and error to diagnose and treat patients, she sought out nurses who could correctly and accurately question the doctor’s authority. This experience deepened her understanding
of the fallibility of authority and the necessity of questioning it. Her older sister encouraged this mature attitude toward authority by involving her equally in decisions and helping her to trust her personal ability to evaluate authority.

Cognitive Benchmark 4. Attitude toward Insecurity

Initial

Generalization 1: False security. Made decisions out of a desire for security and did not question them. Saw every decision as having only one right choice

Warafa’s choice of a college illustrates his need for security and familiarity. Initially, he said he had chosen his college because the strength of its academic programs supported his goal of becoming a doctor. However, he later revealed that he based his assessment of “strength” on the programs’ correspondence to the English, math, and science curriculum he had studied in Africa. He said he had chosen the college also because he did not know anyone attending the other local university, and his high school friends from Africa were also going to the college he chose. Because he did not have any friends at the other university, he did not speak to anyone in person about it; he decided to go where his friends were going.

At the initial level of cognitive development, Warafa chose a college primarily because of its perceived similarity to colleges in their home countries and because his friends were going there. Because none of his friends were attending the local university, Warafa dismissed it even though it may have offered similar academic programs and course content to the college he chose. His motivation to follow his friends and stay in a comfort zone of familiar course content and classmates shows that he may still be
resistant to difference, reliant on relationships with similar others, and likely to see something as better if it correlates with what he is used to. These are all indicators of an initial level of cognitive development (King et al, 2009).

Generalization 2: Personal benefits. Chose careers based on personal benefits rather than chances to help others

Despite his closeness to his parents, Warafa did not struggle with the decision to move away from his family to attend college. He reported that his family was happy he was going to college and “did not care which college I went to” or even “feel sad” that he was leaving. It seems that his family placed such a high value on education that they prioritized it over the value of family togetherness. His singular focus on education and academic success may mirror that of his family.

Generalization 3: Familial dominance. Made academic decisions based on familial approval of them. Had not yet developed personal criteria for evaluating choices

Pilar’s decision to drop out of college was not a self-authored choice between conflicting values, but rather a reliance on the external formula her father had required her mother to follow. These formulas, in turn, were dictated by cultural tradition in which strict gender roles required women to be homemakers and men to be providers.

Intermediate

Generalization 4: Openness to change. Willing to alter their plans in light of new experiences

Both examples given in the description of the data.
Generalization 5: Inner circle altruism. Set goals based on a desire to help family members.

Bee chose to live with her aunt during high school to take some of the financial burden off of her father. When she came to the United States, she looked for a job that would allow her to send money home to her relatives.

Generalization 6: Familial tension. Become aware of the tension between familial and personal expectations.

In his decision to go to college, Pele again encountered tension between the financial needs of his family and his own desire for education. Ultimately, he chose education, assuming that while money was temporary, education was something that would “stay with you forever.” He also reasoned that his family had survived financially before he started working to support them and that they would once again be able to get by without his aid. Further, if he got an education, he would be able to make more money and help his family more in the long run. This may further indicate that he is starting to clarify his own values as distinct from familial expectations and to find a balance between the needs of his family and achieving his goals. However, it could also indicate that he is still operating at an instrumental level in which self-interest is the primary motivator of his decisions (Drago-Severson, 2004).

Generalization 7: Openness to insecurity. Willing to leave familiar surroundings or traditions to pursue their goals.
Bee’s desire to help her family caused her to leave her father and sister during high school and go to live with her aunt, who promised to financially support her and her family and pay all her high school and college fees if she would help her with her business. Bee was so committed to helping her family that she gave up the security and comfort of living with them to go and live in another city, a place that never felt entirely like home to her. The desire to make more money and better support them also factored into her decision to go back to college. Her willingness to act on her values demonstrates that she has internalized them enough to make decisions based on them, which may indicate that she is moving toward maturity intrapersonally. In this case, putting her family first did not hinder her pursuit of her goals; rather, it motivated her to pursue goals that gave her greater independence and ability to provide for her family.

Bee again asserted her independence and embraced insecurity when, out of a desire to “have my own life and be myself,” she moved out of her aunt’s house and traveled to her country’s capital city alone at the age of eighteen. She said, “I saw some of my cousins out of control, lazy, don’t wanna work, so they run away and then come back, and I think, ‘If you’re gonna run away, just go! Take care of yourself!’ They come back and ask for money, but I think I don’t wanna be that kind of person. If I go, then I wanna come back in a good way, be able to take care of myself.”

After living with her aunt and being supported by her throughout high school, Bee became dissatisfied with feeling that she had to do what people told her and work from morning until night because she felt obligated to help them. Seeing her cousins leave home and always come back wanting money, she became strongly committed to financial
independence, and she knew the only way she could achieve it was by getting the education she needed to get a better job. She had enough understanding of her own needs and desires to know she could never be happy helping with her aunt’s business and being financially dependent on her, as her cousins had done. Her cousins’ example shaped her concept of what she wanted for herself, just as the positive example of a cousin who had become a college professor helped her to find a path out of an undesirable situation and closer to her goals.

In a collectivist culture, Bee demonstrated and longed for a surprising amount of independence. Unlike Pele, Ifrah, and Warafa, who purposely chose colleges close to their families, she chose to leave everything that was secure and familiar in order to achieve the kind of life she wanted. Her dissatisfaction with the formulas provided by her family, understanding of her needs and goals, and willingness to leave familiarity to achieve them demonstrate a mature ability to define and act on her own goals and values (Baxter Magolda, 2001).

Generalization 8: Outer circle altruism. Made career decisions based on desire to help people in wider world

Ifrah desired to become a nurse to be able to help people all over the world.

Generalization 9. “Familial Balance” Learned to manage familial influences

Only one example present in the data
Cognitive Benchmark 5: Attitude toward Morality

Initial

Generalization 1. “Authority” Relied entirely on religious authorities to tell them right from wrong

Only one example present in the data

Generalization 2: “Full confidence” Perceived no dissonance in moral decisions

Pele said that he had never faced a situation when he did not know the right thing to do, other than class assignments. When asked how he made moral decisions, he grew almost defensive, stating, “God gave me a brain to decide what is right and wrong, and besides, I’m not a kid anymore.” Pele’s lack of dissonance in moral decisions and insistence on being taken seriously as an adult in decision-making are indicators of an initial level of development (Drago-Severson, 2004; King & Kitchener, 2004). However, they may also reflect his cultural upbringing. In his family, the ability to make decisions for himself was a privilege that came with maturity. He may have thought that by asking how he made decisions, the interviewer was questioning his ability to make decisions. This reliance on the effects of a decision to determine its rightness may indicate that Pele has not yet defined the personal values that allow him to gauge the rightness of a decision for him before he makes it and sees its effects.

Intermediate

Generalization 3: Effect on others. Felt responsible for others’ feelings and saw wrong decisions as those that made others feel bad
Fadumo says she knows what she is doing is right if it is what she wants, if she enjoys it, and if it is “not causing any trouble or hurting anyone.” She interprets American freedom as the ability to do “whatever you want as long as you’re not doing anything harmful to anyone or unlawful or any bad things.” She knows that her desires to get an education, work and earn money and take care of her family are good because “everybody else is doing it.” Seeing other American women do what she wants to do gives her confidence that her choices are right. However, this source of confidence may indicate that her awareness of ethics is still immature, as she is still driven by what she wants and may not understand that she may sometimes have to prioritize other values over what she wants or that at times, doing the “right” thing may cause others to be hurt. In this cognitive benchmark, she is still at an intermediate level of development.

Generalization 4: Crisis of confidence. Used a relativistic philosophy that caused them to questioned their ability to judge anyone’s behavior as right or wrong

Only one example was present in the data

Mature

Generalization 5. Goals and values. Made moral decisions based on personal values, understanding that choosing those values would sometimes cause others to be hurt

When asked how she evaluated moral decisions, Pilar began by describing criteria characteristic of an intermediate level of development. She said, “To know if it’s good advice, you just kinda look at it two different ways: first, would it give a good impact, and if I don’t see any negative impact to it, then I know for sure that it’s good advice.” She said that first that she tried to look at decisions from different angles to determine if
it would hurt others or herself and that if a decision would “cause someone to hurt or fail, then I know for sure it’s a wrong decision. You know it’s the right decision if it doesn’t hurt anyone because you have to make sure the people are not affected in a negative way, in a wrong way.”

However, Pilar went on to question these intermediate criteria during the interview, stating that failure is a part of life and does not necessarily mean a decision is wrong and that sometimes, a decision can be right even if it hurts someone else, as in her decision about her divorce: “Even though it hurts, it is the right decision to let go because that’s the only way you can make the person you love happy. If we had continued in our marriage, we would just hurt more, and it would eventually go on to more hurtful things.”

Pilar is still defining the criteria by which to evaluate a decision as good or bad, and she has not fully embraced moral uncertainty, as she still believes that she can know “for sure” whether a decision is good or bad. However, she is able to identity contexts in which her current criteria fail to explain her experiences. This shows that in the cognitive domain, she may be moving toward maturity. She is beginning to realize that her current criteria are based on external formulas that are not sufficient for every decision. If she continues to weigh and challenge her criteria against personal experience, she will be on her way toward self-authorship (Baxter Magolda, 2001).

Generalization 6: Settled confidence. Had peace about decisions in the midst of uncertainty

Pilar expressed confidence in her decision to divorce her husband when she said that even though it hurt, it was the right decision.
Intrapersonal Domain

Intrapersonal Benchmark 1: Attitude toward Dissension

**Initial**

Generalization 1: Rejection. Rejected any advice that disagreed with what they had already decided to do

Pilar said that even though her parents, other relatives, and friends had urged her to finish college before marriage, she chose to marry anyway. Looking back on this decision, she says that love made her blind and that if she could make the decision again, she would choose to finish school first. “Given the chance, I would try to balance both of them or even finish college before I got married. The hard work here changed my mind about that, because I know when you have a profession, you don’t work hard in the factory. I needed to finish school to get a much better job and get paid more.”

Pilar’s rejection of advice about marriage was not a self-authored choice based on careful consideration of her own values. Rather, it was an impulsive one in which she allowed her emotions to overrule any of her other goals and values. Later in life, when Pilar was divorced and trying to support three children on her own in America, she regretted this choice and wished she had finished school so that she would have more options for employment than factory work. At the time that she made this decision, she had not yet developed enough of an understanding of her goals and values to temper her emotions in pursuit of her goals.

Generalization 2: Inconsistency. Alternately rejected, submitted to, and weighed dissenting views
In his decision to major in accounting, Pele encountered some resistance from his mother, who felt that health care was the most noble and necessary profession. While he did consider his mother’s advice because of the salary available in health care, he ultimately rejected it because he knew that he did not like science or dealing with blood, and he reasoned that his friends who were accountants would be better able to advise him in this career choice than his mother would. Pele’s willingness to at least consider dissenting perspectives may indicate that he has developed more than Warafa in the cognitive realm. Although his reason for considering his mother’s advice is based on his desire to earn a high salary rather than an understanding of the inherent importance of differing perspectives, his determination that a health care career was not right for him because of his interests and abilities may indicate that he is beginning to develop his sense of identity and make choices based on it, which is characteristic of an intermediate level of intrapersonal development (King et al, 2009).

Generalization 3: Engage and withdraw. Addressed dissenters, but then dismissed their views if they could not be won over.

When people questioned her right to be in the US, asking, “Why don’t you stay in your country?” and thinking she was in the United States “for fun” rather than for survival, Ifrah initially tried to educate them about the situation in her country. Some people accepted her explanation, but others challenged it, asking, “How can we know this is true?” She then dismissed their opinions, saying, “They have their own opinion. Leave them. Everyone has his or her idea, what they believe.” Ifrah does try to address the situation by educating prejudiced people. When they remain resistant, however, she
gives up this effort and retreats into relativism. She does not yet recognize racism or know how to respond to it in a way that advocates for herself and others and reinforces her ethnic identity.

Mature

Generalization 4: Engage and persist. Considered and addressed the objections of dissenters, but ultimately maintained a position grounded in personal beliefs and values.

When Fadumo decided to go to college after marrying and having a baby, she again encountered resistance from those within her culture, who accused her of abandoning her family and acting like an American. Even though Fadumo said she did not worry about what people said, she was concerned about the time she would spend away from her family. To counter these worries, she reminded herself of the reasons she knew this decision was right for her: her baby would be safe, she would be back home with him by the end of the day, she would avoid feeling useless because she was earning money and gaining an education, and she would be a better role model for her child in the future.

She said, “I tell myself that this is only temporary, that I am doing this for my son so I can be a model for him of having a career and working through challenges. I think if I did not have a career and tried to tell my son to have one, he might not listen to me.” The reasons she used to defend her decision to go to college seem to be rooted in her personal values, her understanding of herself and her needs, and the present and future needs of her child and may indicate a self-authored choice. By relying on these self-authored reasons, she was able to continue pursuing her goals in the face of resistance, a
characteristic of mature intrapersonal and interpersonal development (Baxter Magolda, 2001).

Intrapersonal Benchmark 3: Attitude toward Obstacles

Initial

Generalization 1: Unacknowledged. Did not acknowledge any obstacles toward fulfillment of goals

Only one example present in data

Generalization 2: Avoidance. Resorted to flight or avoidance because they could not cope with difficulty

At first, Melissa was so nervous about her lack of English skills that she did not talk to anyone. But the second year, students started initiating conversations with her about class assignments, and her ability to talk back to them made her feel like “Wow, I can talk to them; I can communicate. I will be fine.” From then on, she had the confidence to initiate conversations with them and to participate in class discussions.

Generalization 3: Fatalism. Gave up based on fatalistic views that it was “not the right time” and they could not succeed

The cultural formulas that caused Pilar to drop out of school after marriage demanded the sacrifice not only of a woman’s education, but also a man’s if he was the eldest son. Pilar’s father, as the eldest son, had given up his education for the sake of his family. When he was in sixth grade, his father became ill, and he dropped out of school to support the family and pay for the education of his siblings. Similarly, Ifrah was able
to go to college only because her oldest brothers had sacrificed their education to pay for
their siblings.’

These narratives suggest that the requirements of family, especially for the eldest
child, can be a powerful obstacle to college for students from these collectivist cultures.
Interestingly, Pele, the oldest son in his family, did not seem to be constrained by them.
Instead of agonizing over his choice to either support his family or go to school, he
offhandedly assumed, “They survived before [I started working], and they will survive
without me.” He may have had other relatives who were willing to work to support the
family, or his mother’s passion for education may have allowed him to go to school.

Every participant described having parents who had never been educated, but had
encouraged them throughout their lives to get the education they had missed, stressing the
long-term, permanent benefits of it. However, when the requirements of education
conflicted with the needs of family, parents often encouraged their children to sacrifice
education for family. Even though Pilar’s father dreamed that all of his children would
finish college, he also urged her to drop out by stressing that family had to come first, and
that if she could not balance the demands of school and family, school would have to be
sacrificed. Similarly, Ifrah’s family specified that she could attend college only as long
as she could balance school, work, and family. Interestingly, Warafa and Pele were not
constrained by family responsibilities from completing their education. There was no
one telling them that their ability to finish their degree would depend on their ability to
support their siblings or meet their family’s needs. Perhaps this was because their
families reasoned that the man’s role was as provider, and they could provide better for
their families with a better education. Pele did say that the desire to better provide for his family influenced his decision to return to school.

**Intermediate**

Generalization 4: Postponement. Set goals and acted on them, but sometimes allowed the opinions of others to get in the way of their goals.

When Pilar and her husband moved to the United States, she hoped that her husband’s steady job and her mother-in-law’s willingness to baby-sit would make it possible for her to balance school and home. “I thought this is a good idea. He’s there to provide, she’s there to baby-sit, and I’ll have time to study.”

However, the needs of her family again prevented her from pursuing her goals. “My son got sick all the time with the weather changes and we needed money for the doctor, so I had to work.” Since her husband was self-employed, her family had no health insurance. When her son developed asthma, she had to put school on hold once again and find a job to pay for his care. The higher cost of non-resident tuition also prevented her from pursuing college at that time, as she felt she could not take that money away from her family.

Generalization 5: Formulas. Continued to pursue goals using formulas to temporarily resolve disequilibrium.

One example present in the data.

**Mature**

Generalization 6: Persistence. Persisted in their goals despite difficulty and resistance.
When asked why she had chosen to go back to college in the face of opposition from friends and relatives, Fadumo said, “Time flies. After ten years from today, I don’t know what’s gonna happen, I don’t know if I’m gonna live, but if I make change and do what’s right and go to school and finish school and get education, that person who tells me I’m doing wrong, I’m sure will say, ‘Oh my goodness! How did you do that? You did well!’” She explained, “My dream gave me this confidence, because before I could only dream, when I wasn’t here in America, but now I’m here and I go, ‘You’ve got the opportunity. Either you take advantage and do the right thing, or you sit here and it will pass and time will run and more kids will come and I wouldn’t get the chance I have now.’”

Fadumo’s understanding of the limited nature of opportunity gave her the courage to pursue her dream in the face of opposition. She knew, based on her experience longing for education in Africa, that opportunity was fleeting. She was able to distinguish between the temporary sacrifices of giving up time with her son and the permanent benefits education would provide for her and for him. Her acceptance of life’s uncertainty and confidence in her goals and ability to achieve them are all characteristics of a mature level of intrapersonal development (King et al, 2009).

Generalization 6: Accommodation. Made allowances for unavoidable obstacles and revised goals based on personal needs, interests, and abilities

When Bee made her career choice, she recognized that she was living in a rural area and that most jobs in her previous field of study, environmental science, were in the city. She also recognized that because of her discomfort with English, she wanted a job
that relied less on English fluency, and she ruled out teaching and business in favor of becoming a radiology technician. Even though her goal had always been to get a master’s degree, she understood that because her bachelor’s degree from her home country was not as trusted in the US and she needed to improve her English, she had to start with an Associate’s degree. Accordingly, she enrolled at the community college and took only one English class at a time to make sure she had time to devote to it. She also showed mature intrapersonal reasoning when she realistically acknowledged limitations and shaped her goals with them in mind (Baxter Magolda, 2001).

Intrapersonal Benchmark 3: Attitude toward Cultural Identity

Initial

Generalization 1: Association. Defined identity by birthplace, environment, or what others had told them about culture. Had not defined personal criteria for a cultural identity.

Warafa’s identity was determined by the external formulas provided by his religion and culture, and he accepted these without question. When describing his cultural identity, he focused mostly on avoiding things the Quran does not allow, from wearing shorts to watching movies containing love scenes, and doing things the Quran commands, like going to the mosque. He admitted that he was largely ignorant of American culture because he had grown up immersed in African culture and never encountered difference until he came to America.

Melissa’s journey to understanding her cultural identity was much more complex than others’ because, while her mom was Filipina, her dad was white, and she had never
known him, as he died before she was born. Birth is very important to Melissa’s conception of identity. Through years of experiencing racism on two continents, she affirmed her identity by reminding herself of her birthplace, which assured her that she was Asian just as being born in America made someone American. She also chose to celebrate her birthday, with all its cultural traditions, as the only traditional Filipino holiday she observed in America, because she believed that the date of one’s birth should be very important to a person.

Her birthplace, knowledge of her mother’s family, and knowledge of her ancestors on her mother’s side continue to make her confident of her identity as Asian and more closely connected to her Asian side. However, her concept of her culture did not extend much more deeply than that of the place she was born and grew up. In this way, her reasons for connecting to her culture were much the same as Warafa’s, Pele’s, Ifrah’s, Bee’s, and Fadumo’s.

Generalization 2: Rejection. Threatened by difference; refused to embrace any aspect of a foreign culture

Pele states that he daily meets people with “different races, beliefs, religions, and values” in college. However, he says “They do not affect me that much because I have my own beliefs, and they have their own beliefs. They have to respect my beliefs, and I have to respect their beliefs.” Like Warafa, Pele acknowledges epistemological differences between himself and his classmates, but does not allow them to affect his beliefs by dismissing them in the name of relativism. Using a relativistic insistence on mutual respect as a mantra, he avoids weighing and considering the beliefs of those
different from himself. This suggests that at the cognitive level, he, like Warafa, is still in the initial stage of development (King et al, 2009).

Generalization 3: Accommodation. Adopted different cultural behaviors, but not the values behind them

Pele also described how he started learning about other cultures so he could get along with people at work and stopped fighting in order to stay out of trouble. He adopted these behaviors without accepting the values behind them.

Intermediate

Generalization 4: Approval. Considered other cultural views, but maintained native culture out of a desire for approval

One example present in the data

Generalization 5: Chameleon. Tried to fulfill the expectations of both cultures

One example present in the data

Generalization 6: Trial and error. Tried something American to see if they liked it

While growing up, Melissa was constantly reminded of her responsibility to keep her cultural traditions. In America, however, she soon found that the responsibilities of work and school left little time for observing the traditions she had grown up with. She did not even spend the most important cultural holiday, New Year’s, with her family as her culture dictated because she had to work. When others chided Melissa for prioritizing her job as a nurse over her cultural traditions, she said, “We’re here in America now. We have freedom.” Her willingness to prioritize her goals and values over these cultural formulas suggests that she is beginning to create her personal cultural identity.
However, while she claims to identify most with her native culture because she was born there, her understanding of her native culture is still superficial. The only characteristics of her native culture that she described were being talkative and maintaining cultural traditions. She saw herself as different from other immigrants from her country because she was more quiet than her co-worker from the same country and not passionate about traditions like her mother was. She states that going to school and work are more important to her now than keeping her traditions. While she is open to accepting practices from both cultures, her understanding of her cultural identity is still developing.

Mature

Generalization 7: Balance. Suspended judgment while weighing beliefs from both cultures

One example present in the data

Generalization 8: Integration. Created an integrated cultural identity by acknowledging the positives and negatives of both cultures and defining personal values that superseded cultural ones

While acknowledging that she had adopted values from both cultures and was “mixed” in her cultural identity, Pilar desired to protect her children from attitudes of entitlement and ingratitude that she had observed in American children. However, she did acknowledge that positive values, such as persistence, existed in American culture, and that she wanted her children to adopt this value just as she had.
Even though some people accuse Fadumo of rejecting her culture to go to work and school, she is confident of her identification with her culture because it is the only culture she has known since she was a baby, it is how people see her, and it is who she is. Like every other East African participant, Fadumo stresses her responsibility to keep her culture, not change it, and pass it along to her children because it is her legacy from her parents and grandparents. However, she also adds to her cultural definition the sense of loss: “Our culture is very important and that’s all we have since we left the land, the culture is what we have.” After being forced out of her homeland by war, she is determined to maintain the culture that connects her to it. She understands that her culture encompasses language, dress, and the values she will teach her children of politeness and respect for elders.

Interpersonal Benchmarks

Interpersonal Benchmark 1: Criteria for Relationships

Initial

Generalization 1: Similarity. Preferred friends like themselves

One example present in the data

Generalization 2: Personal benefit. Looked for benefits they could receive from others

One example present in the data

Generalization 3: Formulas. Followed formulas provided by religion, culture, and parents to choose relationships

One example present in the data.
Intermediate

Generalization 4: Inconsistency. Began to consider personal needs, but were still influenced by external expectations

One example present in the data

Mature

Generalization 5: Values. Used personal values to shape the criteria by which they chose relationships

One example present in the data

Interpersonal Benchmark 2: Attitude toward Mutuality

Initial

Generalization 1: Formulas. Did not see mutuality as essential; accepted hierarchical cultural formulas

Although Ifrah had always longed to pursue an education, she was willing to give up her dreams if her husband disapproved of them. She accepted the cultural formula that elders and her husband should have the last word in decisions concerning her life. Like Ifrah, Pele and Warafa also stated that they would not change anything about their family’s hierarchical decision-making styles and would seek to replicate them in their own families.

Intermediate

Generalization 2: Inconsistency. Idealized mutuality, but did not consistently apply it

Pilar valued mutuality in her relationships with her children, but not in her relationship with her husband.
Mature

Generalization 3: Equality. Valued individual perspectives regardless of age and gender; suspended judgment while weighing options using mutually defined criteria

One example present in the data

Interpersonal Benchmark 3: Attitude toward Conflict

Initial

Generalization 1: Abdication. Relied on family members to resolve conflicts; had not developed criteria for resolution

One example present in the data

Intermediate

Generalization 2: Avoidance. Avoided conflict whenever possible; saw the absence of conflict as evidence of a healthy relationship

One example present in the data

Mature

Generalization 3: Collaboration. Resolved conflict through suspending judgment and weighing both perspectives

Fadumo explains, “My marriage is happy because my husband and I respect each other. We talk about disagreements. I know I have become more patient and willing to listen to his point of view without judging or thinking I am right. I know I might not be right.” Fadumo describes how seeing her parents work through conflict inspired her desire for mutual respect in marriage. She said, “My parents’ marriage seems real loving, so I’m looking forward to ending up like their marriage. They respect each other and
listen to each other, and they like to settle and solve things in private by talking about it and listening to each other.”

Intrapersonal Benchmark 4: Attitude toward Advocacy

**Initial**

Generalization 1: Unaware. Unaware of racism or the need for advocacy

One example present in the data

Generalization 2: Self-centered. Considered the impact of advocacy on self; did not acknowledge responsibility to a wider world

One example present in the data

**Intermediate**

Generalization 3: Need for approval. Response to racism mediated by a need for approval

Bee was hurt when she read an Internet posting that her employer was favoring immigrants by hiring so many of them. She said, “I think that put me down because...I think they probably feel like I cannot go anywhere else besides [a retail store] or a factory, and that kind of put me down a little bit.” However, she comforted herself by saying, “I think people will accept me if I speak English well and have a good job. I feel like they will accept me like, “Wow, she’s from another country and she can do this job, and her English is really excellent.” Bee acknowledged that even though the xenophobic sentiment was not addressed directly to her, the attitude of the speaker extended to her too. Like Pele, however, Bee saw education and English skills as the tools for earning
respect. She chose to respond to racism by following a formula she felt would insulate her from it.

Bee’s desire for education and a better job was further fueled by seeing how customers at the retail store where she worked treated employees contemptuously regardless of their race. When she saw a fellow employee being derided by a customer, she felt powerless to intervene because of her employer’s mantra that the “customer is always right.” She acknowledged that this rule gave all power to the customer to treat employees as he wished, while the employee had “no power to respond.” Perhaps because of this policy, she did not expect customers to respect her, but to assume that she had no other employment options and that they could treat her as they wished. This further convinced her that she wanted a position in which she would be respected. She knew that working in retail was something she could not “do forever,” and she wanted to have “something to look forward to” in her job and the chance to get a higher position if she returned to her home country. She also wanted to be able to get a job with the same level of prestige as the one she had in her home country. She stated that when choosing a career in health care, “What was most important was I want people to see I can do better than this. I can do a job that smart people do. I don’t wanna feel like I’m down, like I can’t do the job smart people can do. It’s kind of hard when you work with people who have a skill, then you come here and you think, this is my job and I’m in college.”

Like Warafa, Bee desired a job that would allow her to use her skills and training. However, she also greatly valued prestige and opportunity for advancement. One value that separates her from other participants is her desire to keep up with her friends. She
stated that since all her friends in her home country and the US were going back to school and getting better jobs, she wanted to be able to keep up with them. This emphasis on improving and managing what others think of her may be an indicator that in the interpersonal realm, she, like Pele, is using a socializing way of knowing, characteristic of an intermediate level of development, in which the views of others factor greatly into one’s identity (Kegan, 1994; Drago-Severson, 2004).

Generalization 4: Dismissal. Dismissed racism through relativism: “Oh, it’s their opinion. Just leave it.”

Another reason Pele gave for not confronting perpetrators of racism was, “Probably they have different opinions, different beliefs, and you have to respect their actions, whatever it is. Probably it works for them.” These relativistic philosophies are an indicator of an intermediate level of development, in which a person refrains from evaluating opinions because he lives by the mantra that “Every person has his own opinion” and has not developed criteria for judging one opinion as more tenable than another. It indicates that Pele has not yet developed his own criteria for weighing opinions, perhaps because he does not yet acknowledge the need to do so.

Ifrah felt that some Americans had stereotyped women in her culture as “slaves who did not have choices.” She explained, “When people say we are slaves, I feel bad about that. I know we are not slaves. We can do whatever we want. But still they feel that way, so I say, ‘Oh, it’s their opinion. Just leave it.’ She processed disequilibrium internally by acknowledging the negative feelings created by the stereotype, assuring herself that the stereotype was wrong and she did have choices, and then dismissing their
opinions through relativism. Because this experience did not lead her to a deeper understanding of how racism affects “intergroup relations,” it was not developmentally effective (King et al, 2009; Torres & Hernandez, 2007).

Melissa described being disrespected by nurses at the hospital where she worked as a certified nursing assistant. She said, “Some nurses, the way they treat us shows us that we are not really an important part of the hospital as a nursing aid, so I [went back to school] because I want them to see me as part of the team.” She also described her mixed feelings about being sent out of the room in an emergency. On one hand, she felt “left out” and that she should be allowed to stay because she knew what to do. On the other hand, “I think it’s okay because I know my job position, my limits, but on the other hand, yes, I do want to be part of their team, but they think I’m not part of it.”

Like Pele and Bee, Melissa stated that the desire to advance herself, to “step up and learn more” and be treated with more respect in her job was a major motivator for going back to college. She also wanted people to see her as equal to her colleagues. However, where Bee’s definition is more focused on personal advancement, proving that she can keep up with her friends and do the jobs smart people do, Melissa has more of a collectivist orientation, wanting to be accepted and respected as an equal member of a health care team. Her desire to be accepted as part of the team may indicate that like Pele and Bee, she uses a socializing way of knowing in the interpersonal realm (Kegan, 1994; Drago-Severson, 2004). However, she also states that her desire to be part of the team is rooted in her desire to help people, a desire that began in earnest when her mom was diagnosed with a brain tumor and continues to be a driving force in her life. Melissa
wanted to advance in nursing and be accepted by the team of nurses and doctors in order to more fully accomplish her goal of helping people. This desire, which is fueled by her intrapersonal goals and values and an interpersonal commitment to helping others, may indicate that she may be moving from a socializing way of knowing toward a mature level of development.

Generalization 5: Engagement. Were willing to work for the rights of others

Although Fadumo has encountered opposition from other members of her culture while making “American,” choices, she has not experienced negativity from Americans themselves. Instead, she describes positive interactions with Americans amazed at how quickly she has adapted to American culture. However, she did address advocacy in her aforementioned desire to “make a difference “ for women in her culture by working against female genital mutilation. Although she feared that the task of convincing others would be very difficult, she said she knew it was the right thing to do. At this time, however, she says she has put advocacy on hold because “now I have a lot of things to do for the future.”

Even though Fadumo has identified advocacy as a value, she has yet to act on it. Because the time commitment of the two goals conflict, she is currently postponing one for the sake of the other. But even acknowledging that values conflict is an attribute of cognitive self-authorship (Kegan, 1994). Further, her willingness to work for the rights of others may indicate that she is moving toward a mature level of interpersonal development. (King et al, 2009).
This appendix contains further examples from the data illustrating how the survey results supported and contradicted the interview data.

**Confirmation of Developmental Level**

The survey supported the results of the interview data that participants were generally at initial to intermediate levels of cognitive development in which all opinions, even contradictory ones, were seen as equally valid (Perry, 1970; King & Kitchener, 2004).

In question 1, “My primary role in making an educational decision, like the choice of a major or career, is to_________, Bee and Fadumo indicated full agreement with all four choices, and Melissa and Pele indicated slight agreement with all four:

1-1. acquire as much information as possible.
1-2. seek direction from informed experts
1-3. make a decision considering all the available information and my own views.
1-4. consider my own views.

This may suggest that while these students still look to experts as authorities in their decision-making process, they may be moving toward a mature view that considers all available information and their own views. That they ranked seeking direction from experts as highly as considering their own views, however, suggests that they may not consistently use self-authored views of authority when making a decision.

However, Ifrah distinguished herself from the others by slightly disagreeing that she would seek direction from experts and fully agreeing only that she would consider
her own views and all available information. That she is moving away from reliance on expert authority suggests her cognitive potential as she transitions to an intermediate level of development. However, this question does not address her reliance on her family in her decisions, a characteristic that featured prominently in the interview occasionally causes her to question her ability to make choices and revert to lower levels of thinking.

On Question 2, Bee, Melissa, Fadumo and Ifrah indicated slight or full agreement with all answer choices:

2. If a teacher or advisor recommended a career in a field I have never considered before,
2-1. I would listen, but I probably wouldn’t seriously consider it because I have already made a decision.
2-2. I would try to understand their point of view and figure out an option that would best fit my needs and interests.
2-3. I would give it some thought because they probably know better than I do about what might suit me.
2-4. I would try to explain my point of view.

Bee and Fadumo agreed slightly with 2-1, indicating an initial stage of development, but also agreed fully with the other three, which indicate mature, initial, and intermediate levels of development, respectively. Ifrah indicated slight agreement with all four choices. While Pele said he disagreed with statement 2-1, this answer contradicts his previous responses that he would be unlikely to consider advice from any source or to change his decision based on the disagreement of others. However, he did express slight agreement with the other three statements. That these students were at
least open to trying to understand contradictory points of view and helping those with differing views understand their own shows that they may be operating above the initial level. However, because they still fully or slightly believe that others might know better than they do about what career would suit them, they may not always reach their full potential in this area. Even though they know they should allow their needs and interests to help them weigh contradictory views, they may occasionally allow the opinions of experts to sway their decision, further indicating an intermediate level of development (Baxter Magolda, 2001).

Melissa indicated full agreement with 2-1, suggesting that she is sometimes unwilling to consider views that contradict her own. However, she fully agreed with 2-2, which reflects a mature effort to understand others’ point of view while considering her own needs and interests. Melissa, Ifrah, and Pele agreed only slightly with 2-3 and 2-4, suggesting that they may not believe as strongly that authorities could know better than they do about the career that will suit them.

The previous section of the survey helps to explain Melissa’s ambivalence in this area. While Melissa fully agreed that she was confident about her ability to set her own priorities in her schoolwork, personal life, and career, she also slightly agreed with statements that she was unsure about her ability to make her own decisions about her job and her personal life. This suggests that while Melissa is confident in her ability to know herself and her values, she is less confident in her ability to make decisions for herself. Her lack of self-efficacy in decision-making may stem from her lack of experience in this area, as her family used an authoritarian style in which the eldest in the family made
decisions for everyone else. This could explain why she does not always reach her potential for maturity in the intrapersonal and cognitive realms.

In Question 5, “When I am in the process of making an important decision and people give me conflicting advice,________” Melissa expressed equal levels of agreement with the statements that she would not listen and that she would try to listen and consider all of their advice carefully.

Question 7 was: “Experts are divided on some scientific issues, such as the causes of global warming. In a situation like this,

7-1. I rely on the experts to tell me.
7-2. I would have to look at the evidence and come to my own conclusions.
7-3. I think it is best to accept the uncertainty and try to understand the principal arguments behind the different points of view.
7-4. I try not to judge as long as different scientists have different opinions on these kinds of issues.”

Bee and Fadumo fully agreed that they would “rely on the experts to tell” them as well as that they would “try not to judge as long as different scientists have different opinions on these kinds of issues.” While Melissa and Ifrah only slightly agreed that she would rely on the experts to tell them, Melissa fully agreed that she would look at the evidence and come to her own conclusions and that she would try not to judge as long as different scientists had different opinions about these issues. Ifrah was most adamant about not judging because different scientists had different opinions, but she also slightly agreed that she would look at the evidence and come to her own conclusions.
Bee’s contradictory responses to a question about global warming suggests that even in environmental science, the discipline in which Bee received her bachelor’s degree in her home country, she may not have criteria for judging the worth of different views. She may not have been taught these criteria in her academic program, or if she was taught them, she may not have been at the cognitive level where she could receive and apply them (Kegan, 1994). This seems to support the findings of previous research that students majoring in the hard sciences may be more likely to rely on experts for answers to ill-structured questions (Kitchener & Fischer, 1990).

Unlike Bee and Melissa, who fully believed “it is not a matter of facts or expert judgment, but a match between my values, interests, and skills and those of the job,” Fadumo slightly disagreed with this statement. While this answer is consistent with her stated preference for facts and expert advice, it may also suggest that in the cognitive domain, she still sees knowledge as an accumulation of facts and views the authority of experts as a more significant guide to her choices than her own internally defined set of values, skills, and interests. Like the interview data, this suggests that at the cognitive level, Fadumo is still at an intermediate level of development (Drago-Severson, 2004).

In her answers to questions five and six, however, Fadumo’s answers were slightly more sophisticated. She fully agreed that in cases of conflicting advice, she would try to listen and consider all advice carefully, and in question six, she fully agreed only with the statement that “multiple interpretations are possible, but some are closer to the truth than others.” These mature responses suggest that Fadumo may be moving to
mature cognitive reasoning, even if her less mature view of knowledge and authority may sometimes hold her back.

That Pilar agrees most strongly with 6-1 suggests that in the cognitive realm, she may still revert to a reliance on external formulas, although she is exploring other ways of thinking. Although this appears contradictory on the survey, it is consistent with her interview data, in which she displayed the lowest levels of reasoning in the cognitive domain. Although she may be capable of thinking at higher levels in this realm, the impact of familial and cultural formulas that encouraged initial thinking may cause her to return to this level as a default. Pilar indicated agreement with 7-1, 7-3, and 7-4, which were meant to measure initial, mature, and intermediate reasoning, respectively. She showed slight agreement with 7-2, which also indicated mature thinking. This suggests that although she demonstrates some indicators of cognitive maturity, she still believes that experts can be heavily relied on as sources of truth and that some epistemological questions may still be a matter of personal opinion.

**Confirmation of Attitude toward Insecurity**

The survey confirmed participants’ level of development in the cognitive benchmark of Attitude toward Insecurity. On the survey, Pele said that he wanted to be a doctor, engineer, or social worker because he loved helping people and desired a high salary, which he listed as the most important factor in his career choice. In the interview, however, he said he wanted to be an accountant because he was good at math. While Pele appeared conflicted about his choice of career, he indicated in both the survey and interview that his most important value in choosing a career was a high salary. This
single-minded focus on making money also motivated his choice to go right to work after high school and his initial reluctance to go to college. When older factory workers first began encouraging him to go back to college, he first response was to assume that they “wanted all the money for themselves.” This single-minded pursuit of money apart from consideration of his abilities, interests, and long-term plans may support the interview data in showing that at this stage in life, his motivations are primarily based on how a goal or plan will benefit him rather than an authentic desire to help others (Kegan, 1994; Drago-Severson, 2007).

Contradiction in Degree of Independence

First, students portrayed themselves as more independent in the surveys than they did in the interviews (Pizzolato, 2007; Laughlin & Creamer, 2007). After saying explicitly in the interview that he relied on his parents as primary advisors in his career choice because they had known him the longest, knew him the best, and therefore had the greatest ability to choose a career that was best for him, Warafa disagreed with the statement, “When it comes to choice of career, my parents know what is best for me, so I am inclined to go with what they suggest.” In previous sections of the survey, however, Warafa had slightly agreed with the statements that his parents had clear ideas about careers that would suit him and said he had consulted them several times about his career plans, and that he was “very likely” to consider career advice offered by his parents. This contradiction may indicate that he is sensitive to social expectations that he choose a career on his own, as he has reached the age of maturity in his culture and is expected to be able to make decisions for himself (Pizzolato, 2007; Laughlin & Creamer, 2007).
Warafa disagreed fully with the statement, “I am most likely to trust the advice of people who know me best,” but indicated full agreement with the statement, “My parents/guardians encourage me to make my own decisions about my future career.”

Even though he repeatedly described his parents as being his most important advisors and able to tell him which career would be best for him in the interview, he denied their influence on the survey.

Pele indicated that he had only consulted most sources of career information “once or twice” and that he would be “unlikely” to consider career advice from any of the sources listed. In the next section, however, Pele slightly agreed that he found it helpful to listen to the input of others and that he often sought the input of family members and friends when making an important decision. Although he said in the interview that his mother was his most important advisor because she had known him the longest and cared about him the most, Pele slightly disagreed that he liked to have his parents’ input before making a big decision and that he was most likely to trust the advice of the people who knew him best.

In the interview, Pele became defensive when asked how he made moral decisions, insisting, “God gave me a brain to decide right and wrong, and besides, I’m not a kid anymore.” This suggests that he may strongly equates decision-making with being an adult. At an initial level of development, he may believe that being an adult means making his own decisions without truly considering the advice of others. This could be why he was hesitant to admit that he valued his mother’s advice and why he insisted that he would not change his decision if others disagreed with it.
Although Fadumo slightly agreed that her parents had a clear idea about careers that would suit her, said she had consulted them many times about her career choice, and slightly agreed that she was likely to consider career advice offered by her parents to change her decision if her parents disagreed with it, she slightly disagreed that she would go with her parents’ suggestion of a career because they knew what was best for her. and he said he would be equally unwilling to consider dissenting advice from parents or other relatives, friends, and academic advisers.

Contradiction in Degree of Confidence

In addition, some students who claimed a great deal of confidence in their decision-making on the survey exhibited lower levels of epistemological development in the interview. Warafa indicated full agreement with the statement, “If a teacher or advisor recommended a career in a field I had never considered before, I would listen, but I probably wouldn’t seriously consider it because I have already made a decision,” He also disagreed with the statement that authorities could sometimes be uncertain about the truth. Therefore, his answers in this section support previous research findings that confidence in decision-making does not necessarily indicate a mature level of reasoning (Laughlin & Creamer, 2007).
APPENDIX G. Additional Examples of Developmentally Effective Experiences

This section contains additional samples from the interview data demonstrating the answer to subquestion b, the characteristics of developmentally effective experiences among this study’s participants.

1. Questioning: Promoted the questioning of external formulas

Fadumo had a negative experience that demonstrated the inadequacy of relying on external sources to answer questions of identity for her. Her experience of sacrificing her grades and her relationship with her parents in order to party with friends in high school made her realize that “always thinking about how to make happy my friends” had thrown her “off balance,” leading her to conclude, “It was not for me.” This experience caused her to commit even further to her values of getting good grades, being responsible, and maintaining a close relationship with her parents. This experience was developmentally effective because it caused her recognize the inadequacy of an external definition of identity and begin define her personal values, which were distinct from those of her friends. In this way, it served as a Crossroads, showing her the futility of relying on others’ values and the need to begin to define her own (Baxter Magolda, 2001).

Pilar’s divorce was effective because it challenged her formula that if she was a good person, good things would happen to her. She explained, “There were times back then when I first got divorced that I told myself, ‘How can it happen? I’m a good person; I’m obedient to my parents growing up.’” The divorce also required her to stop relying on cultural formulas for gender roles. With no one else to provide for her and her children, she had to provide for herself. Before, while relying on her culture’s formulas of a
woman’s role as mother and housekeeper, she had thought she was not strong enough to balance school and family, and she gave up on school repeatedly because of this lack of self-efficacy. However, after years of working to support her children on her own in America, she became convinced that she was strong enough to balance the demands of not only work and family, but school as well.

Melissa’s encounter with racism at the hospital was developmentally effective because the resistance she faced from the patient challenged her to work through and reject the formulas she had used as excuses for not advocating for herself and others and become more committed to the value of advocacy. As previously mentioned, Melissa was the only student to label discriminatory behavior as racist, take action against it, and then conclude that this action had been effective. She described how past discussions in college English classes of books about immigrants had helped her to recognize racism and find the confidence to confront it because she knew that even Caucasian Americans were descended from immigrants. Interestingly, Ifrah and Pele had taken the same English classes with the same instructor, but were not moved to confront racism when they encountered it. This may have been because while Melissa was operating from an intermediate level of development when she took the English classes and encountered racism, Pele and Ifrah were still at the initial level and may not have been able to fully process the support they received in class or apply it in the encounter with racism. This seems to support previous research findings that “students’ meaning making orientation (the structural lens used for interpreting the world, self, and relationships with others)
was the major student characteristic that affected how students responded to the experiences they reported as significant” (King et al, 2009, p. 115).

2. Jarring: Presented participants with the reality of uncertainty

Before Melissa began working at the hospital, she rested in the certainty that doctors were always right. After seeing that doctors sometimes made mistakes or used trial and error to diagnose patients, she realized that she could not be certain of their diagnoses.

Before her divorce, Pilar believed that she could be certain she had made the right choice if her decision had positive results and did not hurt anyone. However, her divorce introduced uncertainty into her Attitude toward Morality by showing her that sometimes, the right decision could have negative results and could hurt someone.

3. Prioritizing: Presented a sense of urgency that catapulted participants out of passivity and fatalism by prompting them to prioritize and act on their personal values

When asked why she had chosen to go back to college in the face of opposition from friends and relatives, Fadumo said, “Time flies. After ten years from today, I don’t know what’s gonna happen, I don’t know if I’m gonna live, but if I make change and do what’s right and go to school and finish school and get education, that person who tells me I’m doing wrong, I’m sure will say, ‘Oh my goodness! How did you do that? You did well!” She explained, “My dream gave me this confidence, because before I could only dream, when I wasn’t here in America, but now I’m here and I go, ‘You’ve got the opportunity. Either you take advantage and do the right thing, or you sit here and it will
pass and time will run and more kids will come and I wouldn’t get the chance I have
now.”

When Bee came to America as an au pair, she had many fears fed by other
immigrants from her country who described their negative experiences on a website. She
worried about her English especially because she had never enjoyed studying English and
had been so afraid to speak it that she would walk in the opposite direction of foreigners
in her hometown. She also worried that she would be overworked in a family with a lot
of children or expected to do a myriad of other chores besides child care. However, Bee
also described how knowing she would age out of the American au pair program if she
did not act immediately caused her to pursue this goal despite her fears, which she
proactively addressed by choosing a host family with only one child, being honest with
them about household tasks she did not want to do, and enrolling in English classes at the
community college once she finished her work as an au pair. Her focused actions to
address her concerns and make sure her own needs were met instead of hiding them to try
to please her host family demonstrate maturity in the intrapersonal and interpersonal
realms (Baxter Magolda, 2001).

As she thought about returning to college, Bee reasoned, “I’m losing time, and I
quit the job over [in my home country], and if I don’t have anything to go back there, do I
have to apply for the same position again? I’m not a young person anymore, and one day
I’ll be old, and I think I just don’t want to put other people down, who work [in retail],
but in [my country] I had a skilled job. I wanna have that life back.” Bee knew that she
was living in a rural area and that most jobs in her previous field of study, environmental
science, were in the city. She also recognized that because of her discomfort with English, she wanted a job that relied less on English fluency, and she ruled out teaching and business in favor of becoming a radiology technician. Even though her goal had always been to get a master’s degree, she understood that because her bachelor’s degree from her home country was not as trusted in the US and she needed to improve her English, she had to start with an Associate’s degree. Accordingly, she enrolled at the community college and took only one English class at a time to make sure she had time to devote to it. Like Fadumo, Bee described a keen awareness of how fleeting opportunities are and how fast time passes motivated her to make major life decisions and act on her goals despite her fears. She also showed mature intrapersonal reasoning when she realistically acknowledged limitations and shaped her goals with them in mind (Baxter Magolda, 2001).

4. Defining: Prompted students to define their views of knowledge, identity, or relationships

These experiences could provoke participants to answer these questions positively or negatively. Negative experiences helped participants answer the questions, “Who am I?” and “What kind of relationships do I want?” by showing them the kind of people they did not want to be or the kind of relationships they wanted to avoid.

For example, when Bee saw her cousins continually claiming independence but returning to their parents for financial support, she concluded that financial independence was very important to her and that she wanted to be the kind of person who was able to provide not only for herself, but also for her family. Once she had prioritized this value,
she acted on it by moving out of her aunt and uncle’s house and moving alone to the city to pursue her education and obtain a job that would allow her to support her family. Later, she acted on this goal again by moving to the United States as an au pair, knowing that the money she could make here would enable her to better support her family. She is now gratified by her ability to provide for her family and herself in America.

One negative experience, albeit vicarious, helped Fadumo to recognize that the traditional cultural formula of arranged marriage would not lead to the kind of relationship she wanted. Seeing that other women in arranged marriages were “miserable” because their husbands “did not seem to care about them,” “tried to control them,” and saw them as “only a wife, cooking and cleaning,” Fadumo decided to reject arranged marriage and choose a man who would love her and let her pursue her educational and career goals.

Fadumo’s experience of attending high school in the US showed her that she valued education and the chance to work, which she saw as “the American way,” and that she wanted to reject the traditional cultural formula that kept women at home with children instead of going to school and working.

Melissa’s decision to turn down her boyfriend’s marriage proposal and come to the US in search of a closer relationship with her family was developmentally effective because it caused her to answer the question, “What kind of relationships do I want?” as she prioritized and committed to her own goals and values. As she thought about this decision, she concluded, “I just want to know my sister, my brothers, my parents. That was more important to me than marrying my boyfriend.” This decision not only affirmed
her goals and values, but also grew out of her understanding of herself and her acknowledgement that she was “not ready for marriage.” Because this decision was self-authored, Melissa continues to evaluate it positively. She said “I think I did make a good decision for that because me and my sister are very close; it’s more than I expected.” She was proud that she had been there for the birth of her sister’s baby and affirmed that the choice had been right for her.

Choosing to live with her sister during college was developmentally effective intrapersonally for Melissa because it enabled her to act on her personal goals, experience the results of them, and affirm that they were right for her, thus becoming even more committed to them. It was also effective interpersonally because it helped Melissa envision the kind of relationships she wanted in her own family. She admired the open, honest communication between her sister and her husband and how they worked together through problems. Unlike Ifrah, who had been fearful of conflict, she acknowledged that arguing was normal and did not feel threatened by the occasional conflict she observed in her sister and brother-in-law’s relationship. She demonstrated interpersonal maturity in her acknowledgement that her sister shared more secrets with her husband, but that this was as it should be. She was secure with taking second place in her sister’s life.

5. Equalizing: Introduced students to mutual decision-making and questioning authority

Melissa’s experience of living with her sister and brother-in-law in college caused her to question her culture’s traditional hierarchical decision-making style. Although she had grown up in a household where the elders of the family made decisions unilaterally,
she admired how her sister and her husband welcomed her into their decision-making process as an equal, and she desired to make that equality part of her future family.

In addition, experiences of seeing her mother’s illness and working at the hospital were effective cognitively for Melissa, as they helped her to answer the question, “How do I know?” in a way that questioned the authority of experts. Before her mother’s diagnosis, Melissa had always believed that “the doctor was always right.” While working at the hospital, however, she saw doctors make mistakes. This helped her move beyond trusting people who were “nice” to seeking out those who were able and willing to question authority. This experience was cognitively effective because it caused her to acknowledge the reality of uncertainty, to question authority, and to become more adept at evaluating advisors not only for their personal characteristics, but also for their competency and critical thinking.
APPENDIX H. Further Examples of Additional Findings

This section contains additional samples from the interview data to support the study’s additional findings about the abilities, attributes, and models of persistence among these participants as well as factors that impeded their epistemological growth.

Additional Finding 1: Abilities of Persistence

**Ability 1: Set Goals that Consider Personal Limitations**

When Pilar did return to college in 2009, she understood not only the limitations of the economy, but also her own interests and needs in a career. Although her friends encouraged her to pursue her dream of being a teacher, she chose not to because of the number of teachers she knew who were unemployed. Instead, she narrowed her choices to psychology or school counseling, two choices she felt would be in demand in this economy and fit her abilities and values of working with children, giving advice, and showing them that adults could be trusted.

**Ability 2: Look to Past Experiences of Overcoming Hardships and Role Models in Similar Situations**

Class discussions also helped Melissa develop the confidence she needed in her communication skills. She started participating in her English class and was encouraged when she got the right answers, was able to help another students with assignments, and received higher grades than she expected. Even though she still did not think she was smart, she attributed her success to hard work and saw it as evidence that she could successfully go back to school in the US.

Pilar calmed her children’s fears about her decision to go back to school by reminding them that with a better education, she would be better able to support them academically and financially with their own college educations.

Additional Finding 2: Attributes of Persistence

Attribute 1: Self-efficacy

Pilar’s experience of staying in the United States after her divorce caused her to develop a sense of self-efficacy. Reflecting on this experience, she says, “I’m glad I didn’t take that advice [to go back to my country] because I wouldn’t be where I’m at right now. Staying here really made me a strong person, and I’m proud of myself just knowing I survived through all the difficulties I have been through, and this is a busy lifestyle and I’m still in good mind having all those responsibilities and with my health issues. I’d still call myself blessed to be here because of all the opportunities. There’s so much opportunities here if you just step on it, and that’s what I’m doing, just grabbing hold of the opportunities, going back to college.”

In this evaluation of her decision, Pilar reveals how much her thinking about herself, America, and the nature of opportunity has changed since she came to the US. In addition to understanding that she had the strength to handle difficulties, she no longer saw the busy lifestyle of America as a threat, concluding that she could still handle her responsibilities and the added stress that came with them in the midst of being busy. Instead of reacting to the differences in America with a sense of danger and fear, she was
starting to recognize and appreciate the opportunities available to her in America and the fact that in order to take advantage of those transitory opportunities, she would need to take quick and decisive action. Finally enrolling in college was her way of “grabbing hold of the opportunities” available to her. Rather than seeing work as an undesirable obligation, as she had when she first arrived in the US, she now pursued a career as an opportunity to fulfill her goals and develop her talents in accordance with her values.

At first, Melissa was so nervous about her English skills that she did not talk to anyone. But the second year, students started initiating conversations with her about class assignments, and her ability to talk back to them made her feel like “Wow, I can talk to them; I can communicate. I will be fine.” From then on, she had the confidence to initiate conversations with them as well.

Attribute 2: A Future Orientation

Bee’s focus on the future benefits of learning English allowed her to persist in taking college classes even though she could only take one class at a time because of her work schedule.

Attribute 3: A Sense of Urgency

An understanding of urgency propelled participants from passivity and fatalism to proactive action. When Bee came to America as an au pair, she had many fears fed by other immigrants from her country who described their negative experiences on a website. She worried about her English especially because she had never enjoyed studying English and had been so afraid to speak it that she would walk in the opposite direction of foreigners in her hometown. She also worried that she would be overworked
in a family with a lot of children or expected to do a myriad of other chores besides childcare. However, Bee also described how knowing she would age out of the American au pair program if she did not act immediately caused her to pursue this goal despite her fears, which she proactively addressed by choosing a host family with only one child, being honest with them about household tasks she did not want to do, and enrolling in English classes at the community college once she finished her work as an au pair. Her focused actions to address her concerns and make sure her own needs were met instead of hiding them to try to please her host family demonstrate maturity in the intrapersonal and interpersonal realms (Baxter Magolda, 2001).

As she thought about returning to college, Bee reasoned, “I’m losing time, and I quit the job over [in my home country], and if I don’t have anything to go back there, do I have to apply for the same position again? I’m not a young person anymore, and one day I’ll be old, and I think I just don’t want to put other people down, who work [in retail], but in [my country] I had a skilled job. I wanna have that life back.” Like Fadumo, Bee described a keen awareness of how fleeting opportunities are and how fast time passes motivated her to make major life decisions and act on her goals despite her fears. She also showed mature intrapersonal reasoning when she realistically acknowledged limitations and shaped her goals with them in mind (Baxter Magolda, 2001).

Additional Finding 3: Models of Persistence

1. Acquaintances

When Melissa was discouraged by the age difference between herself and her college peers, an older woman in her classes introduced herself and told Melissa she was
a grandmother. She served as a role model even though she was a stranger and helped convince Melissa that she was not as different from others as she had thought.

2. Strangers

Even role models she had never met helped Fadumo persist in her goal to go to college. She said that as she faced resistance from those in her culture about leaving her son in daycare to go to college, she reassured herself by thinking that other mothers who loved their children as much as she did also chose to go to school. Interestingly, she did not name or refer to anyone specifically. Simply knowing that other mothers out there were choosing to continue their own education for the sake of their children was enough to spur her on.

Complete strangers also helped Pilar take confidence in her ability to live on her own in America. When friends told her it would be too difficult to live on her own, she thought, “There are people that come here as refugees and they come here with no family, and they have that urge to live here. How much more myself? I have my in-laws and I have friends. I just thought I’m gonna give it a try for the sake of my kids.” In this case, there was no prior relationship to establish the refugees as role models. Simply knowing that they existed and that their situation presented more obstacles than her own was enough to give Pilar confidence that she could take on this challenge as well.

Thinking of the experiences of strangers also helped Pilar cope with cancer. She said, “I tell myself that I have to be strong like other people have been. I always assume people that have been sick have that strength to overcome.”
Additional Finding 4: Obstacles to Growth

**Obstacle 1: Tranquility**

Thus far, Ifrah’s complete submission to her family’s authority and to cultural formulas of respect for elders has not created disequilibrium for her because her family has been supportive of her choices. Therefore, she has not had to distinguish between familial and personal expectations, and she continues to believe she can rely on her family’s authority in everything from educational decisions to resolving conflict in marriage.

**Obstacle 2: Encountering Racism without Support**

Lacking the resources needed to respond to racism effectively or advocate for themselves or others, participants resorted to external formulas like multiplicity or meritocracy to try to resolve it.

*Formula 1: Multiplicity.* Ifrah encountered racism when people questioned her right to be in the US, asking, “Why don’t you stay in your country?” and thinking she was in the US “for fun” rather than survival. Initially, she tried to resolve the negative feelings provoked by these experiences by attributing them to ignorance and trying to educate people about the situation in her country. Some people accepted her explanation, but others challenged it, asking, “How can we know this is true?” She advised them to do their own research to prove it. She acknowledged that even after trying to excuse them based on ignorance, she still was “not okay.” So she tried to empathize with them, comparing their ignorance of her country with her ignorance of some other countries. When that didn’t work, she again resorted to relativism, saying,
“They have their own opinion. Leave them. Everyone has his or her idea, what they believe. It takes time to understand.” This time, Ifrah did try to address the situation by educating prejudiced people. When they remained resistant, however, she gave up this effort and retreated into relativism. She did not yet recognize racism or know how to respond to it in a way that advocated for herself and others and reinforced her ethnic identity.

Melissa described how a patient at the hospital ordered her out of his room because she was “different.” Although she acknowledged that the man’s behavior was racist, Melissa did not feel she should confront it for three reasons. First, she felt that confronting the man would violate the nurse-patient relationship. She felt that her job as a nurse was to make patients comfortable and respect their rights to privacy and freedom of expression, even if they used these rights to hurt her. She also stated that racism was “his problem, not mine,” and appealed to her cultural value of respect for elders and to her own value of helping people as reasons why she should be silent. She told herself that if she could show this man she cared about him and truly wanted to help him, he would renounce his racism. She vowed to help him whenever his light was on and to “respond in a good way...to show him I was not what he thought I was,” She also reminded herself that thus far, he was the only racist patient she had encountered, and she tried to use her experiences with him to brace herself for other encounters with patients who felt as he did. When a new patient would arrive, she would tell herself, “If he says some stuff, if he doesn’t like you, that’s fine because he doesn’t know you. When he finally knows you, he’ll probably change his mind.” She also reviewed what she had learned in English
class from books about immigrants, that almost everyone in the US was descended from immigrants and that “we are all different here in the States.” She wanted to tell the man that he should not judge because he was descended from immigrants too, but still, she held back.

Finally, after weeks of trying to win the patient with kindness, she responded to his continued resistance by telling him that her father had been American. Ironically, this was enough to make the patient apologize, and his apology gave her the courage to tell him that he should not judge people based on their physical appearance. Melissa said that knowing “what really happened, the history [of immigration in America]” helped her to “be strong and tell him not to judge people for the way they look.”

Unlike the others, Melissa acknowledged this incident as an example of racism. Where Pele called racist behavior rude, Ifrah saw it as uninformed, and Bee failed to identify racist behavior as discriminatory, Melissa directly called the patient’s behavior racist. Like the others, however, she initially used many excuses to avoid confronting it. Like Bee, she felt silenced by the constraints of her job responsibilities. However, her ideas about the relationship between herself and the people she served have been internally defined rather than imposed on her by her employer, as Bee’s constraints were. Like Pele and Ifrah, she also used relativism to dismiss racism as “his problem, not mine,” thus dismissing herself from the responsibility of doing anything about it. As Ifrah had done she also hoped for future redemption when the racist person would recognize the error of his ways. In light of this hope, Ifrah tried to educate Americans about her country’s history and reasons for immigration, and Melissa presented the
patient with the truth about her identity. However, while some of Ifrah’s audience failed to be persuaded, causing her to “just leave them,” Melissa’s audience was moved to apologize, leading her to feel that confronting racism had worked.

**Formula 2: Meritocracy.** In a small way, Pele’s experience working at the factory was developmentally effective because it helped him to clarify that he valued continuing his education more than working to make money immediately. However, it was not as effective as it could have been because he resolved the disequilibrium caused by racism by shifting blame to the victims and falling back on the external formulas provided by stereotypes of immigrants and the view that education and learning English were the keys to being respected by others and getting a better job.

Pele did experience a challenge to this formula when he saw people who had gone to college still working at the factory. However, instead of concluding that his meritocracy formula was invalid, he merely modified it to say that only a four-year degree from an American university would lead to a better job. He assumed that those still working at the factory had either failed to complete their degrees, had completed them in another country, or had achieved only an associate’s degree in the US. In this way, he resolved disequilibrium by modifying existing formulas or creating new formulas to replace the challenged ones.
APPENDIX I: Sample Diagnostic Assessment

Please tell me about an important or difficult decision you have made. This should be a decision in which the right choice was not obvious and you had to think carefully and ask for advice about what to do. Please explore the following questions in a narrative or expository essay about your decision:

Your decision
- Which decision were you making, and at what point in life did you make it?
- Which options were you deciding between?
- What was important to you as you made this decision?
- Which criterion mattered most?
- How well did each option meet the criteria?

Your advisors
- Whom did you talk with about this decision and why?
- Whose advice did you consider most seriously and why?
- How did you handle advice that conflicted?
- Was there any advice you rejected? If so, why?

Your results
- In the end, what choice did you make?
- How did your family react to your decision?
- How did your friends or significant others react?
- How did this decision affect your relationships with them?
- What were the results of the choice for you personally?
- As you thought about these results, what did you tell yourself?

Your reflections
- How does this decision affect your life today?
- If you had it to do over, would you make the same decision again?
- What advice would you give to someone making a similar decision?
APPENDIX J. Sample brainstorming activity

Decision Essay Brainstorm

Name___________________

Decision:

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| Criterion 6:       |           |           |           |           |
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