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Stories of Success: A Phenomenological Study of Positive Transformative Learning Experiences of Low-Socioeconomic Status Community College Mathematics Students

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To the Graduate Council:

I am submitting herewith a dissertation written by John Thomas Smith entitled "Stories of Success: A Phenomenological Study of Positive Transformative Learning Experiences of Low-Socioeconomic Status Community College Mathematics Students." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Teacher Education.

Lynn L. Hodge, Major Professor

We have read this dissertation and recommend its acceptance:

Vena M. Long, Charles R. Collins, Stergios G. Botzakis

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

Stories of Success:
A Phenomenological Study of Positive Transformative Learning Experiences of
Low-Socioeconomic Status Community College Mathematics Students

A Dissertation Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

John Thomas Smith

December 2016

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DEDICATION

...to my wife, Sherry

I know I have been in school as long as we have been together
Without your love, support and patience this work would not have been possible.
It is finished! For us, an exciting new season of life begins.

...to my son, Ryan

Since you charged into my life nearly 33 years ago nothing has ever been the same.
Thank you for always being a source of motivation and pride.
Nothing makes a Father happier than to see his son become a good man.

...to my Mom,

As a child, listening with you, as the Clancy Brother's sang Finnegans Wake,
we could not foresee the role this timeless story of death and rebirth would have in our lives,
watching your transformational quest, your Hero's Journey to obtain the elixir of education,
has had a lasting impact on all of your children, inspiring a love of education and learning.
You were 60 years old when we watched as you were awarded your graduate degree.
That memory has been a great source of inspiration for this quest.

...to my Dad

It is with great regret you are not still with us to share in this accomplishment. I know now how
fathers relish moments like these. As I grew up watching you it seemed like you never met a
stranger. You lived your faith through the love and respect you showed for others. Your love of
family and others in the world has become so much a part of who I am.

...to my late brother, Mike

You were the first to follow Mom's lead to become a scholar.
I was proud of your academic accomplishments, but not ready to follow that path.
Losing you so young was one of the great tragedies of our lives, but before you left,
You planted the seeds of curiosity and wonder. Those seeds finally took root and sprouted.

...to my soon to arrive Grandchild

I am looking forward to meeting you soon and can hardly contain my excitement. Perhaps
someday your Dad will read this page to you. The story of a proud family legacy built on love
and a sense of wonder is contained in these few short passages. This is your inheritance.
Keep this legacy close to your heart and stay curious through the Hero's Journeys of your life.

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ABSTRACT

All too often education research focuses on academic disparities with under-served student populations. Frequently, both remedial and introductory college-level mathematics courses are cited as gatekeepers or insurmountable barriers for adult low-socioeconomic status (LSES) students. There has been a call from within the mathematics education community for less gap-gazing at disparities and more studies of success within marginalized groups. Many previously unsuccessful, under-prepared, under-served, and under-supported students persist and eventually succeed. In addition, there is a lack of research through the lens of the community college as a unique educational context, distinct from both K-12 and the four year colleges and universities. The goal of this hermeneutical phenomenological study is to describe and interpret the lived experienced of previously unsuccessful LSES students who became successful. Ten students told their stories during unstructured phenomenological interviews. Upon analysis of the interview transcripts, themes appeared consistent with the patterns of the inward and outward journeys found in the *Hero's Journey* or monomyth narrative structure. The stages of the monomyth as described in the work of Campbell (2008) are rooted in the universal human themes of the transformational quest. Six meta-themes appeared through the textual analysis of the interview transcripts; 1) the call of a better life that requires education, 2) connections with mentors and allies through authentic relationships, 3) the cultural border crossing at the threshold to higher education, 4) perspective transformations taking place as tests presented by an array of threshold guardians are passed, 5) increasing resilience through taking ownership and increasing networks of connections as the labyrinth of higher education was navigated, 6) after seizing the magic elixir of education the desire to pay it forward. Their stories reveal a perspective

transformation as described in Mezirow's (1981) transformative learning theory. These stories of transformational learning as experienced by previously unsuccessful LSES community college students provide essential insights as to how we might foster positive learning transformations, and more importantly, avoid being the source of needless obstacles for our students. These findings present a narrative counter to the current deafening drumbeat of the anti-developmental education, completion and acceleration agendas.

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CHAPTER I: INTRODUCTION

At every educational level from kindergarten through higher education we have passionate disagreements about mathematics instruction. These disagreements cover a wide range of issues such as to what mathematics should be taught, how mathematics should be taught, in what order should mathematics be taught, by whom should mathematics be taught, how do learners learn mathematics, and what is evidence of their learning. The *Math Wars* have raged for over a century and the only issue on which the combatants agree is that the mathematical performance of our students is unacceptable. Numerous studies cite declining mathematics and science skills and the negative effects on educational attainment (Stigler, Givvin, & Thompson, 2010). The relationship between low mathematics and science academic achievement and low socioeconomic status (LSES) is also well documented within the education research literature. (Lubienski & Gutierrez, 2008; Stigler et al., 2010).

According to US Census data, more than one out of every seven people living in the United States are categorized as LSES or living in poverty as of the year 2010 (U.S. Census Bureau, 2011) . This reflects an increase from approximately one out of ten in the 2000 census. In the current economic environment, the number of people slipping from the middle to the lower socioeconomic class continues to increase (U.S. Census Bureau, 2011). It is well documented that as educational levels increase, opportunities to rise from poverty increase (MDRC, 2006). When compared to other students, LSES students are less likely to earn a college degree (Goldrick-Rab, 2010; Terenzini, Cabrera, & Bernal, 2001; Titus, 2006; Walpole, 2003). Education researchers frequently describe mathematics as a barrier or gatekeeper for LSES

students in their pursuit of a college education (Anderson, 2007; D'ambrosio, 1990; Stigler et al., 2010).

The Context

Among higher education stakeholders there has been an increased focus on the overwhelming number of underprepared students arriving in today's college mathematics classrooms (Bailey, 2009; Shore & Shore, 2003; Stigler et al., 2010). Coupled with this increase, has been the increased restrictions on access to the four-year colleges for students requiring remediation. As a result, in many states the only higher-education option for underprepared students needing remedial or developmental course work are the public two-year colleges. Two-year or community colleges have open access policies featuring minimal enrollment requirements and low tuition (Dowd, 2008). The traditional mission of public community colleges is to provide access to higher education for everyone, regardless of prior academic experiences, socioeconomic status, race, creed, sex, or national origin (Gilbert & Heller, 2013). As a result community college student populations include greater proportions of first generation students, older or non-traditional students, students who are single parents, working students, second-chance students, low-income students, and minority students. Community college students are more likely to be under-prepared, under-served, and under-supported. Community colleges are the most democratic of our institutions of higher education, playing a vital role in expanding post-secondary educational access for disadvantaged students (Goldrick-Rab, 2010; Jenkins & Weiss, 2011). Although community college mathematics education intersects with K-12 and undergraduate mathematics, the unique culture and learning environment of the community college demands further study (Sitomer et al., 2012).

The Problem

The National Council of Teachers of Mathematics has stressed the importance of “mathematical power for all” since their 1989 Principles and Standards document was released. As a result, a myriad of usually well-intended reforms have been implemented over nearly three decades with mixed success (Stigler et al., 2010). Many of the reforms ushered in as a result of that document have produced positive results for many learners. However, in spite of these efforts, success remains elusive for many of our students. Massive disparities still exist, especially for minority and LSES students. There have been many studies that examine, race, gender, ethnic background, and English-language learners. The majority of studies exploring the relationship of these factors and academic achievement, examine class related differences in combination with race, ethnicity or gender. However, there is a shortage of research for which class related differences are the primary focus (Boaler, 2002; Lubienski, 2003; Titus, 2006; Walpole, 2007). In addition, most of the researcher attention is focused on dropout and failure rates (Bailey, 2009; Ladson-Billings, 2006; Stigler et al., 2010). Many equity researchers have come to describe the abundance of research focusing on achievement disparities among marginalized students as gap-gazing (Gutiérrez, 2008; Healy & Powell, 2012; Rodriguez, 2001; Stinson, 2010). Gutiérrez (2008) maintains that the excessive research focus on the achievement gap presents a fixed image of academic disparities, while providing little in the way of useful information regarding the history or context. All too often gap-gazing focuses on variables frequently out of the control of mathematics education stake-holders intent on impacting positive change. As a result there is an increasing call within the mathematics education community for more studies of success and quality rather than continued gap-gazing at disparities (Cobb & Hodge, 2002; Lubienski & Gutierrez, 2008; Stinson, 2010; Walker, 2006).

Also at issue is the bulk of the research focuses on the teacher or the institution, ignoring the experiences of the students (Grubb & Cox, 2005; Howard, 2008; Stigler et al., 2010). The fact is, many previously unsuccessful, under-prepared, under-served, and under-supported students do persist and eventually succeed. This success is frequently accompanied by a dispositional transformation consistent with the National Research Council's (Kilpatrick, Swafford, & Findell, 2003) definition of a productive disposition as a strand of mathematical proficiency. This dispositional change may best be described as situated in a synthesis of learning theories under the umbrella of Mezirow's transformative learning framework (2009). Two studies examining the attitudes and beliefs of four-year university developmental mathematics students have provided some valuable insights into the nature of the transformation from mathematics failure to mathematics success (Howard, 2008; Weinstein, 2004). However, in spite of President Obama's call for an increased focus on the nation's community colleges, there is a shortage of research through the lens of community college as a unique context, and on the experiences of the students within the classroom and the institution (Mesa, Wladis, & Watkins, 2014; Walpole, 2003). Exacerbating the problem is the increasing domination of the community college, acceleration, completion, and developmental education debates dominated by well-funded private interests with a narrow focus on the bottom line of numbers of graduates and certificates awarded at the expense of quality and equity (Goudas & Boylan, 2012) .

Significance of the Study

Several researchers have examined adult developmental mathematics students (Attewell, Lavin, Domina, & Levey, 2006; Bailey, 2009; Boylan, Bonham, & White, 1999; Howard, 2008; Stigler et al., 2010; Weinstein, 2004). Howard's (2008) phenomenological dissertation study focused on the experiences, dispositions, instructional and learning strategies of successful

developmental mathematics students at a four year western public university. Weinstein's research focus included peer-to-peer and peer-to-tutor interactions of developmental mathematics students at a four year Midwestern public university. Weinstein describes the subject university as having higher admission standards. These are important studies providing valuable insights as to the experience of university developmental mathematics students. However, changes of access to developmental mathematics instruction for most students requires an examination of student experiences through a different lens. Over the last several years four-year universities in many states have stopped offering developmental or remedial course sequences, moving these programs to public community colleges (Attewell et al., 2006; Merisotis & Phipps, 2000).

Approximately 60% of community college new student enrollees require at least one developmental course (Attewell et al., 2006; Bailey, 2009). Again we see in the mathematics education literature study after study shining a light on unsuccessful academic performances of low income and minority community college students, especially those assigned to developmental mathematics, reading, or writing courses (Attewell et al., 2006; Bahr, 2013; Bailey, 2009; Goldrick-Rab, 2010; Levin & Calcagno, 2008). There is another story that needs to be told. The students who have overcome previous mathematical failures and difficult socioeconomic circumstances to become successful through the attainment of mathematical proficiency must be given voice to describe this powerful transformation. A hermeneutic phenomenological study is the appropriate platform for current or former students to describe and give meaning to their transition to success, thus filling a gap in the mathematics research literature. Studies of the phenomenon of perspective transformation as experienced and understood by previously unsuccessful low SES community college students will provide

essential understandings as to how faculty, staff and administration might foster transformative learning experiences.

Research Question

This study seeks to describe and interpret the meaning of the transformative learning experiences of current or former community college LSES students who have overcome socioeconomic obstacles, mathematical failure and other related academic obstacles. The goal of a hermeneutical phenomenological study is to describe and interpret the shared lived experience of the phenomenon that is the unit of study. This hermeneutic phenomenological research approach relies on unstructured dialogical interviews as will be described in more detail in Chapter 3. The interview opens with what is better described as an open-ended prompt rather than a question. The opening research prompt for these interviews was, *“tell me about your experience with mathematics, you can go back as far as you want to go.”* All follow up prompts, in keeping with the understanding the interviewer is not to introduce anything new, will be in the form of, *“tell me more about that”*. An in depth description of the process of conducting a hermeneutical phenomenological interview is provided in Chapter 3.

Rationale for the Methodology

The goal of the study is to describe and understand the shared phenomenon as experienced by a group of people. A qualitative study is useful in exploring and describing a central, primarily social, phenomenon (Wallen & Fraenkel, 2001). Patton (2002) describes phenomenology as an approach that seeks to answer the following question: “What is the meaning, structure and essence of the lived experience of this phenomenon for this person or group of people” (p. 104)? Moran (2000) contends that the subjective view of experience

portrayed by phenomenology is a crucial “part of any full understanding of the nature of knowledge” (p. 21). An interpretivist approach holds that there are multiple realities shaped by “variables that are complex, interwoven and difficult to measure” (Glesne, 2011, p. 9). Taylor (1996) describes the social epistemology of critical-constructivism as a transformative force for social change in which teachers and students are co-participants in the constructing and reconstructing of social realities. Understandings are co-constructed by the researcher and the participants (Hatch, 2002). An interpretive hermeneutical phenomenological approach will be an effective means to describe and interpret the meaning of the transformative learning experience for LSES community college mathematics students. Hermeneutical phenomenological research is well-suited for educators looking to bridge the chasm between theory and practice from a critical perspective. “Framed by ethical considerations. It involves hand (acting), heart (feeling) and head (thinking)” (Henriksson & Friesen, 2012, p. 9).

A Broader Vision of Academic Success

Although passing college level mathematics courses with a grade of C or better, earning a college diploma, or certificate are currently seen as primary indicators of success, a broader working definition of success consistent with the traditions of higher education informs this study. Braskamp and Engberg (2011) articulate success from this higher education view.

Higher education has always stressed the development of the “whole student” along several dimensions-intellectual, social, civic, physical, moral, and spiritual. Students develop their mind, body and spirit simultaneously, and they grow up using their heads, hearts, and hands. As students develop cognitively, integrating knowledge in ways that reflect their learning, they also need to grow both interpersonally, by considering

themselves part of a larger whole, and intrapersonally, by establishing a belief system that can influence and guide their choices and experiences. (p. 1)

In this vein, the definition of success for this study is marked by desirable student outcomes measured by multiple indicators.

- Student retention or persistence
- Educational attainment
- Academic achievement
- Student advancement
- Holistic development

Holistic development applies to the growth of the whole person across multiple dimensions; intellectual development, emotional development, social development, ethical development, physical development, and spiritual development (Braskamp & Engberg, 2011; Cuseo, 2007).

Definition of Terms

Definitions and descriptions are provided for the following terms that will be used throughout the study: Some of these terms will be explained in more detail in subsequent chapters.

Affect:

Affect covers a wide range of non-cognitive concepts including the role of beliefs, attitudes, emotions, and values in the learning process.

Developmental Mathematics:

For the purpose of this study, developmental mathematics is defined, as any mathematics courses required of college admitted students as prerequisites for enrollment in college level

mathematics courses. These courses generally include a sequence of topics based on arithmetic, pre-algebra, basic or general algebra, and intermediate algebra. In some studies developmental mathematics is synonymous with remedial mathematics.

LSES student:

A student's socioeconomic status is based on family income, parental or family education levels, occupations, and social status within the community. Social status within the community is characterized by contacts within the community, group associations, and the community's perception of the family. LSES students often lack the financial, social, and educational supports that characterize families with higher socioeconomic status. LSES families also may have limited or inadequate access to community resources that promote and support a student's development and academic preparedness. Family members may have inadequate skills for providing educational support. In addition LSES students may lack information about health and nutrition issues and lack access to adequate health care, which may lead to high absenteeism. Levels of LSES represent a wide range from deep poverty to near poverty, which will be described in more detail in the next chapter.

Mathematical Proficiency:

Mathematical proficiency has been described by the National Research Council as containing five integrated strands; conceptual understanding, procedural fluency, strategic competence, adaptive reasoning, and productive disposition (Kilpatrick et al., 2003)

- *Conceptual understanding*: comprehension of mathematical concepts, operations, and relations
- *Procedural fluency*: skill in carrying out procedures flexibly, accurately, efficiently, and appropriately

- *Strategic competence*: ability to formulate, represent, and solve mathematical problems
- *Adaptive reasoning*: capacity for logical thought, reflection, explanation, and justification
- *Productive Disposition*: the inclination to see mathematics as sensible useful and worthwhile coupled with a belief and diligence and one's own efficacy (p. 5)

Self-efficacy:

Self-efficacy refers to beliefs about one's personal expectations of success for certain tasks or in certain situations (Bandura, 1982).

Transformative learning:

Transformative learning is a process of perspective transformation that involves a change in understanding of oneself and a revision of one's belief system, resulting in behavioral or lifestyle changes (Elias, 1997).

Situation to Self

My secondary, adult developmental education, and community college teaching experience has included, a large LSES suburban high school with a diverse student population, a LSES, mid-sized city high school serving a primarily Hispanic population, two LSES small town, rural Appalachian high schools serving primarily Caucasian populations, and an urban community college campus in a LSES, primarily African-American community. I currently serve as an associate professor of mathematics at a suburban campus of the same community college. I found the obstacles faced by the students in all of these environments to be remarkably similar. The primary common characteristic of the student populations at each of these schools was not race or ethnic background, but the socioeconomic status of the students. These teaching

experiences coupled with my study of the education research literature has led to the belief that economic obstacles are the dominant limiting factors for students both in the study of mathematics and overall educational outcomes. There is an ample body of evidence within education literature in general, and mathematics education specifically, to support this contention (Cooper & Dunne, 2000; Engstrom & Tinto, 2008; Knapp, Shields, & Turnbull, 1995; Ladson-Billings, 2006; Lubienski, 2006; Titus, 2006; Walpole, 2003).

My personal worldview falls within the critical-feminist paradigm. The critical-feminist paradigm holds that both the real and perceived nature of reality is different based on one's race, gender, or class (Hatch, 2002). Consistent with this stance, I see knowledge, especially within the realm of the social sciences, as subjective and political. Many in the field of education are seeking the silver bullet or one-size-fits all solution. My view is this is impossible in the study of the complexities of human behavior. When it comes to teaching mathematics, the one way is there is no one way (Picciotto, 2007). Context matters and makes a difference (Gutiérrez, 2012). Personal experience as an educator validates this position. The previously described teaching experiences working with LSES Hispanic urban, suburban, and rural students, LSES urban, suburban, and rural African-American students, and LSES White urban, suburban, and rural students is a major source of my motivation for this study. The similarities of the problems faced by these diverse groups of students are firmly rooted in their shared disadvantaged socioeconomic status. I have firsthand experience with the reality of a playing field that is not level in terms of resources, support structures, or opportunities.

It is easy to pontificate about the needs of LSES students from a comfortable middle-class lifestyle. Although, I have experienced financial ruin, the indignities of unemployment, losing my home, having my utilities turned off, limited access to medical care, and not having

enough money to eat, these were temporary setbacks as there was always a family safety net. I was a single parent, having raised my son alone for 12 years, but still with accessible family support in emergencies. For far too many LSES students, there is no family safety net or support. It is my belief that a complete understanding of the experience of living in poverty is unattainable without the actual lived experience. However, even an incomplete understanding of the lives and perspectives of LSES students, who in spite of these obstacles, have successfully transformed themselves from unsuccessful to successful mathematics learners, will improve practice and research.

There are other reasons for my passion to understand the nature of the power of transformative learning. I have experienced my own positive transformation. I had three unsuccessful attempts as a college student in the 1970's. During those years I had convinced myself that I hated mathematics and did everything in my power to avoid mathematics courses. In the three years I was pretending to be a college student, I took one mathematics course, precalculus, earning a C with minimal effort. I would not get the opportunity to return to college until I was nearly 50. During that time as the owner of a restaurant and bar, a real estate appraiser, a real estate agent, and a mortgage loan officer, I came to appreciate and understand mathematical power, what it meant for those that had it, and the difficulties created for those who did not. Time and time again I saw people who lacked basic numeracy skills fall prey to financial predators. My Christian faith is a powerful driving force behind both my world view and choice of a vocation. I try to adhere to the mission of social justice for the poor as prescribed in the biblical teachings of Jesus Christ.

Another role instrumental in shaping my philosophy of teaching and research stems from over thirty years of experience as a soccer player and coach. The sport of soccer shaped much of

my identity for many years. I dressed, walked, and talked in a way that identified me with the culture of the sport. My self-worth was wrapped up in my competence and confidence associated with success in the sport. As a player, I was part of teams that proudly wore the underdog label as they found a way to prevail against more talented opponents in the winning of championships, culminating in a national championship in 1979. I learned that some people find a way to succeed in spite of facing what appear to be insurmountable odds. There is a saying about the Irish, that they never know when their beaten. The mindset needed to persevere is situated in this attitude. Frequently, teammates that were not the most talented players, consistently found ways to over-achieve as a result of this attitude. Conversely, I have seen extremely talented players simply give-up when situation took a turn for the worse. This experience also shaped my understanding of the power of community, when a group of people from different backgrounds successfully pursued a common goal. Conversely, I have experienced the dysfunction and associated lack of success when the sense of community is absent. A wonderful by-product of my time with the sport was the development of lifelong relationships that I maintain to this day. From this comes a belief in the importance and power of relationships. As I transitioned to coaching, and moved up the ranks to eventually coach at the college level, time and time again, I would see the phenomena of the less talented over-achiever and the abundantly talented under-achiever.

From these experiences, and a focus on motivation and affect in my graduate studies, I moved into the teaching profession with the belief that I could not address the cognitive needs of my students without commensurate attention to the inter-related affective needs and sociocultural influences. Intuition dictated that in teaching in a discipline that is frequently met with resistance, attention to helping students positively change their learning dispositions was as least as

important as content, if not more. Connecting this to my experiences in sales, I was selling a product that many of my customers didn't want or think they needed. If the buy-in was going to happen, customers would have to believe they needed the product. In this case the product was a proficiency in mathematics accompanied by a positive overall learning disposition.

Staying with the theme of influential life experiences and the impact on teaching and research philosophies brings into focus the thirty plus years, simultaneously with my soccer career, spent as a bartender and pub owner. A bartender's role goes beyond the need for an encyclopedic knowledge of drinks. The role requires a friendly personality, the development of sympathetic ear, and a level of personal control with regards to emotions, attitudes, and beliefs. Bartending demands that one be considerate, courteous, respectful and tolerant in order to maintain a positive relationship with customers regardless of their socioeconomic backgrounds, levels of education, or position in the community. My work as a bartender put me in contact with people from many different backgrounds and cultures. Bartenders have been described as the poor man's therapist. Nearly everyone confides in their bartenders, and, of course, bartenders do not charge \$100 per hour for listening. In my role as a bartender, people would tell me things that they would not tell their families, and certainly not their pastor or priest. In this role I cultivated a non-judgmental, sympathetic ear and developed a fascination with other people's stories. I did not know it at the time, but what I was developing was the phenomenological attitude and the ability to cultivate rapport with others. Rapport allowed others to feel safe and comfortable telling the stories of their life. This ability would be recognized by the members of the research group as we worked through the interview transcripts.

In ways I could never have realized, the impact of the informal knowledge gained through previous life experiences prior to my border crossing into academia, has driven my

choice of a research topic, a research approach, a profession, and my worldview. I view my role as an adult mathematics educator and education researcher as a means to help students empower themselves with the acquisition of the positive habits of mind that accompany increasing one's desire and ability to learn. These values frame the direction of my research. My goal is to produce practical research of a transformative and restorative nature that will fill important gaps within the fields of adult and mathematics education.

Delimitations

Interview participants will be limited to LSES current and former undergraduate college mathematics students who were directed to placement testing for pre-requisite deficiencies in at least one of the domains of mathematics, reading, and writing. Most of the participants subsequently completed a developmental mathematics course sequence. Others completed developmental course sequences in reading or writing, or combinations of any or all of the three. Two were exempted from developmental mathematics due to higher placement test scores and were subsequently placed in credit-bearing, elective, pre-requisite mathematics courses equivalent to intermediate algebra. Additional criteria for participants was previously unsuccessful experiences in mathematics at the elementary, middle, secondary or undergraduate levels. Participants were selected who currently or previously attended a specific multi-campus community college in the Southeast that serves urban, suburban and rural students. Purposive sampling was used relying on faculty, staff, and participant recommendations, preliminary interviews, participant financial aid and academic records. The minimum threshold for determination of success required that participants had subsequently passed their college-level mathematics coursework. Nearly all participants surpassed this minimum threshold, with seven having earned two-year college degrees, and four having earned bachelor's degrees. Two are

current university students, one is a current community college student, and one will be returning to the community college next semester. One unforeseen factor in determining if a student would be a suitable participant was the wide ranges of levels of economic difficulties, described as a continuum from deep poverty to near poverty. As a result two extra participants were added to the study in order to more accurately reflect this range. More information will be provided on the participants in Chapters 3 and 4.

Limitations

1. The study will be limited by which students participate in the study.
2. Low-SES status will be determined by a student self-reporting instrument verified by school financial aid data. The accuracy is dependent on the truthfulness of the student.
3. Previous unsuccessful mathematics experience will be determined by a student self-reporting instrument verified by current and previous school academic records. The accuracy is dependent on the truthfulness of the student.
4. Students' perception of past events will be selective.
5. The researcher's position as mathematics instructor at the two-year college that is the subject of the study will raise the possibility of bias in student responses, and the interpretation of the responses.
6. Three of the participants took a developmental mathematics course taught by the researcher.

Organization of the Dissertation

The dissertation is organized in the traditional five chapter format of 1) introduction, 2) literature review, 3) methodology, 4) findings, and 5) discussion and implications. In this chapter, the study has been introduced with a description of community college as a unique educational context. As a result of this uniqueness, the case is made for a research agenda recognizing the differences from both K-12 and the four year college and university setting. The research problem has been identified and claims for the significance of the study provided. The phenomenon to be studied and the research question or prompt has been given, accompanied by a rationale for a hermeneutical phenomenological approach. The need for a broader definition of success has been articulated and a working definition provided, along with definitions of some of the key terms that are used throughout the study. Explanations of more complicated philosophical and research concepts are provided in later chapters. The situating of the primary investigator within the research is discussed, accompanied by an articulation of a research stance and associated assumptions. This is followed by delimitations, limitations, and organization of the dissertation. The second chapter provides a review of the literature regarding characteristics of LSES students, identifies common obstacles, notes connections to the literature providing support for the uniqueness of the community college context, the role of developmental or remedial mathematics, reading and writing within the community college, affective issues as connected to adult education and the study of mathematics, and learning theories influential to this study. The final part reviews research on recognizing obstacles and providing appropriate support for the LSES student related to identified themes of the study, such as entering college as a cultural border crossing for the LSES student. The third chapter provides further rationale for alternative ways of knowing and the selected research approach, followed by a detailed account

of the procedures used and the basis for decisions made by the primary investigator along the way. The fourth chapter reports the findings primarily with the participants' voices through the narrative framework of the Hero's Journey. The rationale for the use of this narrative framework is provided in chapters three and four. In the fifth and final chapter, drawing directly from the participants' voices, the identified meta-themes are summarized, related to previous research, unforeseen research problems are noted, implications identified, and recommendations are made for action, policy, and future research directions. The chapter closes with the primary investigator's autobiographical reflection.

CHAPTER II: REVIEW OF THE LITERATURE

This chapter provides a review of the literature related to this study. The review will be presented in six sections. The first section provides a general review of the characteristics of adult LSES students and discussion of obstacles identified in the literature. The second section provides a general review of the history of community college and its role as a unique educational context. The third section provides a general review of developmental mathematics, and other adult remedial learning programs, focusing on the role of community college as provider of this curriculum. The fourth section provides a general review of affective domain issues regarding adult student motivation as influenced by emotions, attitudes, values, and beliefs. The fifth section provides a general review of influential adult learning theories and frameworks related to this study. The sixth section provides a general review regarding recognizing obstacles and providing support for LSES students as related to key findings from the study.

Characteristics of LSES Students and Common Obstacles

A students' socioeconomic status is based on family income, parental or family education levels, occupations, and social status within the community (Demarest et al., 1993). Social status within the community is characterized by contacts within the community, group associations, and the community's perception of the family. LSES students often lack the financial, social, and educational supports that characterize families with high socioeconomic status. LSES families also may have limited or inadequate access to community resources that promote and support a student's development and academic preparedness. Family members may have inadequate skills for providing educational support. In addition LSES students may lack information about health

and nutrition issues and lack access to adequate health care, which may lead to high absenteeism (NCREL, 2004).

The effects of poverty on academic outcomes are documented in numerous studies (Knapp et al., 1995; Lubienski, 2003, 2008; Payne, 1996). Specific to mathematics education, LSES students frequently receive inadequate K-12 teaching (Knapp et al., 1995; Whelan & Teddlie, 1989), and limited exposure to appropriate course work at the secondary level (Goldrick-Rab, 2010; Ozturk & Singh, 2006; Walpole, 2007). LSES students take fewer college prep courses, and lack “college knowledge” resulting in greater challenges negotiating the higher education application and financial aid processes (Goldrick-Rab, 2010; Roderick, Nagaoka, & Coca, 2009)., LSES students are more likely to enroll in open-access two year colleges (Bragg & Durham, 2012; Dowd, 2008; Goldrick-Rab, 2010). LSES college students are more likely to be placed in developmental classes and less likely to earn a degree (Bragg & Durham, 2012; Dowd, 2008; Goldrick-Rab, 2010; Titus, 2006; Walpole, 2007).

Community College as a Unique Educational Context

In 1948, the report of the President’s Commission of Higher Education for Democracy, frequently referred to as the Truman Commission, suggested that the federal government make available the resources to *level the playing field* in regards to access to higher education. Primary findings of the commission were that access to higher education was not equitable and as a result “the nation was depriving itself of a vast pool of potential leaders and socially competent citizens by allowing access based on economic status to be perpetuated” (Gilbert & Heller, 2013, p. 418). In response to these findings the commission recommended the expansion of the role of community colleges. The commission identified finances as the primary barrier to students from lower income families. The effectiveness of publicly supported community colleges has been

described as “one of the greatest educational success stories of the last two decades” (Breneman & Nelson, 2010, p. 1). The 1960’s and 1970’s saw a tremendous expansion in community colleges. By 1975, half of all first time college students were enrolled in community colleges (Breneman & Nelson, 2010). The critical role for community colleges, cited in the Truman Report, was to bring about the democratization of higher education (Goldrick-Rab, 2010; Meier, 2013). In keeping with this mission it became the gateway to higher education for historically underrepresented groups (Bailey & Morest, 2006; Bragg & Durham, 2012; Dowd, 2008; Goldrick-Rab, 2010). The open-access of the community college is often the only higher education option for under-prepared students lacking pre-requisite academic skills or credentials (Bailey & Morest, 2006; Goldrick-Rab, 2010).

Although community colleges serve as the gateway to higher education, some researchers have also identified it as a gatekeeper (Dowd, 2008). The community college with its, open access policies was supposed to be the great equalizer, but influential research universities also saw this as a way to “relieve senior institutions (especially those dedicated to research) from the burden of teaching first-year and second-year students” (Bragg, 2001, p. 98). Community colleges were at one time referred to as junior colleges, which was a reflection of this view. With the majority of first time enrollment shifting to the community colleges, pressure is reduced from the universities and four year colleges to expand enrollment. Dowd (2008) claims this has resulted in a stratification of higher education, while putting additional pressure on the community college as a gatekeeper. By moving all developmental or remedial education to the community college, access is restricted to the four year colleges and universities (Attewell et al., 2006; Dowd, 2008). As a result of this higher education stratification, the critical community college role in providing an avenue for students to acquire college preparatory skills takes on

added significance, especially in today's accountability era (Bailey & Morest, 2006; Dowd, 2008). Frequently, current accountability policies do not take into account the multiple missions and diverse student needs of the open-access community college (Dowd, 2008; Goldrick-Rab, 2010). Some are calling for changes to a more restrictive admissions policy, or limiting access to developmental or remedial programs (Bragg & Durham, 2012; Goudas & Boylan, 2012). However, others warn such a departure from the mission and purpose of the community college would result in "greater social and economic iniquity for disadvantaged groups" (Bragg & Durham, 2012, p. 107).

Other contextual differences between the community college and the four year universities are evidenced in demographic characteristics of the community college student, particularly the LSES student. Community college LSES students are more likely to have outside work and family responsibilities that require part-time college attendance (Cohen, Brawer, & Kisker, 2014; Mesa et al., 2014). Many LSES community college students are single mothers (Mesa et al., 2014). Other characteristic include first generation college students and students who dropped out of high school, earning their high school credentials via adult education GED programs (Mesa et al., 2014). The pronounced contextual differences between the community colleges and K-12 and four-year undergraduate colleges and universities support the call for a research agenda that acknowledges the uniqueness of the community college (Dowd, 2008; Mesa et al., 2014).

Developmental Mathematics in the Community College

As enrollment in community colleges continues to increase, more and more students arrive unprepared to do college work. The majority of students arriving on community college campuses are required to enroll in developmental mathematics classes based on some form of

placement test score (Bailey, 2009; Shore & Shore, 2003; Stigler et al., 2010). Research indicates LSES students are overrepresented in developmental or remedial classes (Attewell et al., 2006; Bailey & Cho, 2010; Goldrick-Rab, 2010).

Most developmental mathematics courses include a sequence of topics based on numbers and operations or arithmetic, pre-algebra, beginning algebra and intermediate algebra. The term developmental mathematics is often described as synonymous with remedial mathematics. Howard (2008) describes developmental mathematics as any mathematics courses required of college-admitted students as prerequisites for enrollment in college level mathematics courses. The main objective of these programs is to provide support and instruction for academically under-prepared students to facilitate their transition into the college-level curriculum, thereby increasing student retention (Boylan et al., 1999). As with most topics in mathematics education, developmental mathematics programs are a source of controversy. Critics point to data that shows high failure and low retention rates among developmental mathematics students. Studies claim success rates as low as 30% for students enrolled in developmental mathematics classes (Attewell et al., 2006; Bailey, 2009; Stigler et al., 2010). Some portray developmental mathematics courses as gatekeepers or weed out classes, creating insurmountable barriers for student hoping to earn post-secondary degrees (Bailey, 2009; D'ambrosio, 1990). Other researchers claim that developmental students perform no better in college level courses than non-developmental students. Research such as this has prompted state-legislators and policy-makers to question funding these programs. One of the arguments suggests that it is a waste of resources because the taxpayer is paying to educate some students twice (Bailey, 2009; Lesik, 2006). As a result of these views, many states have made developmental education the exclusive bailiwick of community colleges (Attewell et al., 2006; Dowd, 2008).

As in all mathematics education debates, there is a significant amount of evidence that questions the causality of developmental mathematics as a primary reason for many negative student outcomes (Bailey, 2009; Lesik, 2006; Stigler et al., 2010). Stigler et al (2010) suggest that the use of the same traditional methods that failed to produce durable learning for these students are being repeated in developmental mathematics programs. They question why different outcomes should be expected from the same unsuccessful methods. Bailey (2009) concedes that since most of the studies lump all the varying formats of developmental mathematics programs together that the statistical analysis suggests that some must be producing promising results. He also suggests that many of the studies fail to control for other variables. Many researchers report of positive outcomes as a result of developmental mathematics participation (Lesik, 2006; Weinstein, 2004). Others maintain that students who persevere and successfully complete their developmental mathematics requirements are more likely to succeed in all of their college level courses (Bailey, 2009; Lesik, 2006; Weinstein, 2004). In the Lesik (2006) study a statistical model was used that “embedded combined regression discontinuity design within the framework provided by a discrete-time survival analysis”, which she posits produced an “unbiased estimate of the causal impact of participating in a developmental program in mathematics” (p. 583). The study found that students who participated in a developmental mathematics program were significantly less likely to drop out of college than non-participants. Bailey (2009) cited other studies that showed higher success rates for developmental students. Weinstein (2004) credits developmental mathematics programs with guiding students through the “process of enculturation by which they learn the norms and expectations of being a university mathematics student” (p. 232).

Affective Issues in Mathematics and Overall Learning Dispositions

Researchers are showing increased interest in the role of affective factors in the learning of mathematics (Grootenboer & Hemmings, 2007). Numerous studies have examined the relationship between beliefs, attitudes, and feelings towards mathematics, and achievement in mathematics (Grootenboer & Hemmings). Wilkins and Ma emphasized the importance of mathematical beliefs in their research. They suggested that a person's mathematical disposition related to beliefs and attitudes towards mathematics may be as important as content knowledge. A person's mathematical disposition would influence their ability to make informed decisions in terms of their willingness to use mathematical knowledge in everyday life (Wilkins & Ma, 2003). The importance of student motivation has also been the impetus for new affective domain research. Motivation is attributed by many to be one of the prevailing determinants of students' success or failure in school (Hardre, Crowson, Debacker, & White, 2007; Hidi & Harackiewicz, 2000).

Grootenboer et al. points out that the literature seems to be consistent in confirming students who attend LSES schools achieve significantly lower than students who attend high SES schools. There are two learning theories that seek to explain attitudinal obstacles to academic achievement for LSES or at-risk students. The first is causal attribution theory or attribution theory, "which deals with the reasons or attributions individuals give for succeeding or failing at a task" (Kloosterman, 1984p. 4). Some suggest this theory holds that a person's causal attributions of achievement behaviors affect subsequent achievement behaviors and motivation such as future achievement expectancies, persistence at similar tasks, and pride or shame felt following success or failure . Specific to mathematics, Kloosterman, suggests that a history of failures in mathematics lead to a learned helplessness (1984). The second related

theory is referred to as the expectancy-value model (Brophy, 2010; Feather, 1982). This model links academic motivation to a student's expectation of success and the value they place on the task. Value in this context would be determined by the perceived relevance of the task to the student's life experiences. The equation is the expectation of success times the perceived relevance of the task equals motivation or student engagement. If either factor is missing, the result is zero student engagement. Developmental community college mathematics students frequently arrive with a need to unlearn deep-rooted cognitive and affective mathematical misconceptions and reconcile their informal or real-world mathematical knowledge with that of the formal mathematics presented in the classroom (Mesa et al., 2014).

Influential Adult Education Learning Theories

The intent in a hermeneutical phenomenological study is to guard against theory having undue influence on the description and interpretation of the lived experience of the research participants. However, as will be clarified in the next chapter, the researcher must acknowledge theories that impact his or her research stance. In the case of this study, a discussion of transformative learning is necessary, as it is the phenomenon under study. Sociocultural learning theory and a relational perspective on cultural diversity and equity will be discussed as applicable to transformative and adult learning.

Transformative Learning Theory

Transformative learning theory emerged as a result of research of factors associated to the success or failure of women upon their reentry to community college programs in the 1970's. Mezirow observed that a key factor was perspective transformation. From these observations, he presented a ten phase transformation process that emerged as common to many of the women

who were successful. Mezirow (1996) posited that perspective transformations were accompanied by the following “phases of meaning”:

- A disorienting dilemma
- A self-examination with feelings of guilt or shame
- A critical assessment of epistemic, sociocultural, or psychological assumptions
- Recognition that one’s discontent and the process of transformation are shared and that others have negotiated a similar change
- Exploration of options for new roles, relationships, and actions
- Planning a course of action
- Acquisition of knowledge and skills for implementing one’s plan
- Provisional trying of new roles
- Building of competence and self-confidence in new roles and relationships
- A reintegration into one’s life on the basis of conditions dictated by one’s perspective

Taylor (2009) identifies the following six core components for fostering transformative learning; individual experience, critical reflection, dialogue, holistic orientation, awareness of context, and authentic relationships. Taylor provides further descriptions of each component.

1. Individual experience, is described as “the primary medium of transformative learning”
Each learner’s experience is a combination of prior experience, with the experiences of the classroom or other learning environment, and what learners are experiencing in their lives. The combination of these experiences provides a starting point for discourse that leads to critical reflection. It is through this process that the learner challenges his or her

attitudes, values and beliefs. It is through these challenges that transformative learning occurs (pp. 5-7).

2. Critical reflection is “a distinguishing characteristic of adult learning, through critical reflection the learner questions the integrity of his or her deeply held assumptions and beliefs based on prior experience. It is often prompted in response to an awareness of conflicting thoughts, feelings, and actions, and at times can lead to a perspective transformation”. (p. 7)
3. Dialogue is “an essential medium through which transformation is promoted and developed”. It is through dialogue that “critical reflection is put into action, experience is reflected on, assumptions and beliefs are questioned, and habits of mind are ultimately transformed”. (p. 9)
4. A holistic orientation “encourages the engagement with affective and relational ways of knowing”. Affective knowing, requires development of “an awareness of the role of feelings and emotions” as a “trigger for the critical reflective process, prompting the learner to question deeply held assumptions” (pp. 10-11).
5. An awareness of context requires a “deeper appreciation and understanding of the effect of personal and sociocultural factors that play an influencing role in the process of transformative learning”. These factors include the learning environment and its immediate surroundings, the personal and professional situations of the learners, the prior experience of the learners, and the background contexts of the learners’ local and global communities (pp. 11-12).
6. Authentic relationships are “meaningful genuine relationships with the learners”. The establishment of “positive and productive relationships with others is one of the essential

factors to a transformative experience. It is through building trusting relationships that learners can develop the confidence to deal with learning on an affective level, where transformation can be perceived as threatening and an emotionally charged experience” (p. 13).

In the above descriptions both sociocultural and relational aspects were addressed as essential to transformative learning theory. Further clarification is provided in the following two sections.

Sociocultural Learning Theory

Vygotsky’s social constructivism stresses the fundamental role of social interaction in the development of cognition. An example of this specific to mathematics would be a learning environment where students are able to see other students modeling successful learning, providing an academic enculturative dimension (Vygotsky, 1962; Wenger, 1998). As students enter into this community of practice they are encouraged to become mathematicians through active participation (Yackel & Cobb, 1996). Adoption of the behaviors and practices of the mathematical community leads to student self-identification as a member of the overall academic community. This approach allows for student awareness of possibilities for positive perspective transformation through their own action, connecting directly with the productive disposition strand of mathematical proficiency. The transformative learning framework is located within a social constructivist framework.

Relational Perspective on Cultural Diversity and Equity

Cobb and Hodge (2002) present a framework describing a relational perspective on cultural diversity and equity. This framework is presented in regards to mathematics classrooms, but the underlying theory could apply to any classroom. This perspective is not limited to the students’ participation in out-of-school informal or in-school formal practices. It is not limited to

their performance on high-stakes tests or grades they receive for their coursework. The authors suggest this perspective “encompasses what are traditionally referred to as students’ motivations to continue to study mathematics and their persistence while doing so” (p. 253). The theoretical orientation that emerges is an intersection of the students’ participation in the classroom, their local communities, and in the broader communities to which they belong. The core components of transformative learning, specifically a holistic orientation and an awareness of context hinge on an understanding of the situational effects influenced by the learners’ relationship to the school learning environment, and the local and global communities to which they belong.

Recognizing Obstacles and Providing Support

In keeping with the iterative, whole part-whole commitment of hermeneutical phenomenological research, it is recommended the primary investigator revisit the research literature specific to key findings before, during, and after the study (Boell & Cecez-Kecmanovic, 2010; Patton, 2002). This part of the literature review addresses this hermeneutic commitment.

Engstrom and Tinto (2008) argue access without support is not opportunity. This has taken on adequate significance as community-colleges deal with the increasing demands imposed by outcome based-accountability measures (Dowd, 2008; Goldrick-Rab, 2010). Three interconnected topics, which appeared from the participants’ shared positive transformative learning experiences call for a closer look at the research literature. Entering college as a cultural border crossing, the potential for use and misuse of socio-psychological interventions, and the impacts related to the presence or absence of authentic relationships within the college environment are given closer examination.

Academic Border Crossings and the LSES Student

“Uni has a different language...to the real world” was an observation made by an Australian LSES student (McKay & Devlin, 2014). An LSES community college student from the United States recalls, “I came in here unsure of everything” (Bickerstaff, Barragan, & Rucks-Ahidiana, 2012). Another LSES community college student from the same study remembers, “I knew nothing and I had a lot to learn real fast” (p. 7). LSES students arrive with limited awareness of the academic culture and discourse of higher education (Lawrence, 2002; McKay & Devlin, 2014; O’Gara, Karp, & Hughes, 2009). This lack of awareness is not only about academic preparation, but extends to “non-academic and non-cognitive factors such as social integration, comfort with the cultural and institutional norms of college, and student motivation and confidence” (Bickerstaff et al., 2012, p. 1). For the LSES student this cultural incongruity, as described by Devlin (2013), results in feelings of being out of place or not belonging. Success for LSES students hinges on understanding the unspoken requirements, or hidden curriculum of higher education (Benn, 2000; Lawrence, 2005; McKay & Devlin, 2014). Boud (cited in Lawrence, 2005) argues that “academics have expectations, but fail to articulate them and then make judgments about students who fail to demonstrate them” (p. 248). Lawrence (2005) decries the “sink or swim” approach, evidenced by some faculty and staff who believe they have “little role in, and therefore little responsibility for students’ engagement and perseverance” (p. 205).

Gutiérrez describes her personal experience and that of co-author Lubienski based on their LSES backgrounds. “We both traversed cultural terrain in moving between our home-backgrounds to that of academia, and we both see costs and benefits to such border crossings” (Lubienski & Gutierrez, 2008, p. 370). Giroux (2007) identifies “the need to create pedagogical conditions in which students become border crossers” (p. 28). Lawrence suggests that

interventions based on cross-cultural communication theory are a basis for effective support for LSES border crossers.

Cross-cultural literature contends that in order to reap maximum benefits from an unfamiliar educational system, new students need to establish interpersonal relations and communicate effectively with mainstream students and teachers. Bandura's (1986) social learning model, for example, is utilized as the basis of a cross-cultural communication strategy. Through the strategy, people who have recently arrived in a new culture become competent and effective in dealing with members of the host culture. This model's significance is two-fold. It not only establishes the grounds for prioritizing the role of sociocultural competencies in helping students adjust to unfamiliar university culture. It also provides a theoretical frame for prioritizing particular socio-cultural competencies – specifically seeking help and information, making social contact, and participating in a group. (Lawrence, 2002, pp. 8-9)

Roderick et al. (2009) provide four areas of skill development essential to college readiness as, content knowledge and basic skills, core academic skills, non-cognitive skills and norms of performance, and “college knowledge”. LSES students' inadequate *college knowledge*, coupled with mistaken assumptions on the part of faculty and staff regarding what students know and don't know, can be remedied by comprehensive college-wide enculturation approaches that meet LSES students where they are and immediately begin teaching the ways of the college. (Bickerstaff et al., 2012; Lawrence, 2005; McKay & Devlin, 2014; O'Gara et al., 2009) .

Socio-Psychological Interventions: GRIT and Mindset

Affective attributes of successful students are not easily measured with quantitative measures, but have been recognized throughout the history of education. In 1916, the creators of the IQ test recognized the need for “other things than intelligence to succeed in his studies, one must have qualities which depend especially on attention, will and character” (Binet, Simon, & Kite, 1916, p. 254). Recent research in student retention, persistence, resilience and completion refer to these as noncognitive factors, or soft-skills (Karp, 2011, 2016). “These so-called noncognitive qualities are diverse and collectively facilitate goal directed effort (e.g., grit, self-control, growth mindset), healthy social relationships (e.g., gratitude, emotional intelligence, social belonging), and sound judgement and decision making (e.g., curiosity, open-mindedness)” (Duckworth & Yeager, 2015, p. 237). Based on a growing awareness of the need to address the non-academic obstacles faced by LSES students, there has been an increased interest in socio-psychological interventions as a way to support students in overcoming negative dispositions by fostering the development of the noncognitive qualities (Almeida, 2016; Walton, 2014; Yeager & Walton, 2011). Two of the most well-known interventions are Mindset (Dweck, 2006) and GRIT (Duckworth, 2016). Yeager and Walton (2011) maintain social-psychological interventions “hold significant promise for promoting broad and lasting change in education...” however they caution that these are not the on-size-fits-all solution that will be the magic bullets to save education. These interventions are context-dependent and need to be adapted for use within different educational environments. Devlin (2013) warns that misuse of these type interventions promote deficit-thinking and the simplistic approach that the LSES student just needs to work harder. Almeida (2016) maintains that over-reliance on these policies could result in ignoring systemic problems creating obstacles for marginalized groups. Bickerstaff et al.

(2012) “hypothesize that short term interventions may not result in sustained changes to student confidence” (p. 20). Multiple studies agree that insuring there exists an environment that fosters social connections with faculty, staff and peers appears to be the primary ingredient in fostering positive mindset changes (Almeida, 2016; Engstrom & Tinto, 2008; Goddard, 2003; Karp & Hughes, 2008; Lawrence, 2005; McKay & Devlin, 2014).

Authentic Relationships

Research consistently provides evidence demonstrating the connection between strong relationships and LSES student achievement (Goddard, 2003). Relationships with faculty, staff, and peers are the instrumental connections for LSES students to feel a sense of belonging to the academic community (Bickerstaff et al., 2012; Engstrom & Tinto, 2008; Karp & Hughes, 2008). Bickerstaff et al. (2012) claim providing LSES students the opportunity to interact with their professors and access student support services resulted in increased confidence. Engstrom and Tinto (2008) recommend the establishment of learning communities within the college as safe, supporting places to learn and where a sense of belonging is cultivated. Karp (2016) presents a holistic conception of non-academic support of which ensuring there exists an environment for creating social relationships is a key ingredient. The common thread throughout this study has been the impact of authentic, trusting, supportive, relationships as the foundation of transformative learning experiences.

CHAPTER III: RESEARCH APPROACH AND DESIGN

“One learns to know only what one loves, and the deeper and fuller the knowledge is to be, the more powerful and vivid must be the love, indeed the passion. (Goethe, 1963 p. 83)”

Ways of Knowing

In his seminal *Being-In-The-World* (1967) existential psychologist, Binswanger, provided the following quote from polymath Pascal’s posthumous work *Pensées (Thoughts)*. “On n’entré dans la vérité, que par la charité” or in English, “One cannot penetrate the truth except through love” (p. 173). Pascal was echoing Christian theologian and philosopher, Augustine. Van Manen (1990) translates Binswanger’s interpretation as “we can only understand someone or something for whom we care” (p. 83). What draws someone to choose a career in the caring professions such as teacher, or nurse, or psychologist or social-worker? Many in these professions have an altruistic approach to the world motivated by a desire to help the *Other*, consistent with the ethical phenomenology of Levinas (Dahlberg, Drew, & Nyström, 2001; Galvin & Todres, 2012; Garrison, 2008; Henriksson, 2012; van Manen, 1990). Frequently those who seek to understand phenomena within human or social science fields are motivated by what initially drew them to the caring professions. In this vein the research is also a caring act in that we are serving and sharing our being with those we care about (van Manen, 1990). “Research is planned and conducted because the phenomenon in question matters in some way to the researcher” (Dahlberg et al., 2001, p. 33)

The goal of this study is to understand the meaning of the phenomenon of the transformative learning experiences of previously unsuccessful LSES community college students. If we are to understand the meaning of the experience of the student, then “the student

is the most important and central person” (Dahlberg et al., 2001, p. 20). What way of knowing will allow us to achieve a deep understanding of this phenomenon as experienced by the student?

Dahlberg (2001) provides description of two basic, classical world views.

- 1) Everything in an about the world including people are best understood by being divided into their smallest parts or variables (atomism), and/or reduced to the smallest often physical common denominator (reductionism)
- 2) The world is structured in patterns of internal interacting parts where the whole influences the parts and the parts the whole (holism). (p. 29)

At this point it is necessary to examine methods of inquiry situated within their respective foundational world views from a historical and philosophical perspective at it applies to both the natural and human sciences.

As human beings we live in a concrete world. How human beings experience this world is characterized by complexity (Dahlberg, Nyström, Drew, 2001, p 24). In a 1967 International PEN Conference address, Pulitzer prize winning author and poet Auden (1967) described the meaning of the word individual as “primarily a biological term” that allows us to be “comparable, classifiable, countable, and replaceable”, whereas as persons we are unique, and as such, “incomparable, unclassifiable, uncountable, irreplaceable”. Dahlberg et al. maintain.

"Many central and important phenomena in the world of human being are immeasurable.

In human science research we have to deal with a complexity and an ambiguity that does not allow for reductionism or atomism without losing this world’s vital meaning” (p. 24).

Reductionism and atomism are hallmarks of the positivism that is the controlling paradigm of the analytical-rational scientific tradition that has dominated western thought since the Enlightenment (Flyvbjerg, 2001; Galvin & Todres, 2012; van Manen, 1990). The natural

science model of knowledge acquisition is characterized by detached observation, controlled experiments, context-independent variables, comparison, predictions and quantitative measurement (Formosinho & Formosinho, 2012; Hatch, 1985; van Manen, 1990). The foundation of positivism lies in the “assumption of objective world which has order independent of human perception” (Hatch, 1985, p. 160) In a description of the natural science model Flyvbjerg provides “key concepts being explanation and prediction based on context-independent theories” (p. 26). The dominance of the analytical-rational scientific paradigm is understandable in light of the successes in improving the quality of life and advancing civilizations’ cumulative body of knowledge in the natural sciences (Flyvbjerg, 2001). As such it is not surprising that human science scholars adopted natural science research methodologies in their respective disciplines, some examples being education, nursing, sociology, psychology (Flyvbjerg, 2001; Formosinho & Formosinho, 2012).

Human and Natural Sciences-Different Ways of Knowing

By the late 1800’s there was growing dissatisfaction with the limitations of the positivist paradigm in human beings as they interact with the world. German philosopher Dilthey is credited by most with establishing the distinction between the human sciences and natural sciences (Dahlberg et al., 2001; Tool, 2007; van Manen, 1990). In his 1883 text, *Introduction to the Human Sciences*, Dilthey articulates the differences between natural or physical science, *Naturwissenschaften*, and the human sciences, *Geisteswissenschaften* (Dahlberg et al., 2001; van Manen, 1990). The subject matter of *Geisteswissenschaften* “is the human world characterized by *Geist*—mind, thoughts, consciousness, values, feelings, emotions, actions, and purposes, which find their objectifications in languages, beliefs, art and institutions” (van Manen, 1990, p. 3). Dilthey was heavily influenced by the hermeneutics or theory of interpretation of Friedrich

Schleiermacher providing the motivation to establish a non-naturalistic approach with lived-experience and life itself as the focus of human science inquiry. Dilthey's work would influence to the early 20th century phenomenology and hermeneutical phenomenology movements in continental philosophy. However, the basis for different modes of inquiry for different domains within the human experience is not a recent idea.

Phronesis or Practical Wisdom

In Aristotle's chapter on the intellectual virtues in *Nicomachean Ethics*, three approaches to knowledge are given. Flyvbjerg (2001) provides the following interpretation of these approaches.

- Episteme: scientific knowledge. Universal, invariable, context-independent. Based on general analytical rationality. The original concept is known today from the terms "epistemology" and "epistemic."
- Techne: Craft/art. Pragmatic, variable, context-dependent. Oriented toward production. Based on practical instrumentality governed by a conscious goal. The original concept appears today in terms such as "technique," "technical," and "technology."
- Phronesis: Ethics. Deliberation about values with reference to praxis. Pragmatic, variable, context-dependent. Oriented toward action. Based on practical value-rationality. The original concept has no analogous contemporary term (p. 57).

In his discussion of the intellectual virtues Aristotle is making the case that natural and social sciences are different ways of knowing and as such require different methods of acquiring truth (Aristotle, 1893). He notes important distinctions between things based on invariable principles known through demonstrative faculties (episteme) and things that are variable known through deliberative faculties (phronesis). Phronesis allows one to have situational understanding or an understanding based on context. Phronesis is a way of knowing that requires that some types of

knowledge must be situated in context. It is this understanding that has resonated with human science scholars. Flyvbjerg describes this as a constructive perspective of social science where knowing is achieved through context, judgment and practical knowledge. He elevates context to being “central to understanding what social science is and can be” (Flyvbjerg, p. 9). Phronesis as a way of knowing corresponds with a holistic world view of humans in their lived experience of the world. Next we will explore the idea of holistic world view and how it applies in the human sciences.

A Holistic Approach

Human science begins in a desire to explore the relationship between human beings in the world with others. Dahlberg describes Dilthey’s motivation as a turn to a holistic perspective that could recognize the world of implicit meaning and experience (Dahlberg et al., 2001). As resistance to the reductionism of the positivist paradigm grew, there was a corresponding increase in support for modes of inquiry based on a holistic world view. The etymological roots of the word holism, from the Greek word, *holos* which is defined as whole, entire, or all. Aristotle is frequently quoted from his work *Metaphysics*; “the whole is greater than the sum of its parts”. Some contend there is an error in this translations and that it should read “the sum of the whole is different than its parts”. Scholars have noted compatibilities between holism and the eastern philosophies found in Hinduism, Buddhism, Taoism, and Zen focusing on the unity and interconnectedness of things. Austrian born physicist and ecologist, Capra, in his classic work, *The Tao of Physics* (2010), compares the modern physicist and advances in quantum physics to the ancient knowledge of the eastern mystics.

Quantum theory thus reveals a basic oneness of the universe. It shows that we cannot decompose the world into independently existing smallest units. As we penetrate into

matter, nature does not show us any isolated "building blocks," but rather appears as a complicated web of relations between the various parts of the whole. These relations always include the observer in an essential way. The human observer constitutes the final link in the chain of observational processes, and the properties of any atomic object can be understood only in terms of the object's interaction with the observer. (p. 68)

Researchers have noted the similarities in Eastern thought and evolution of phenomenology, specifically hermeneutic phenomenology as paths for inquiry (Dahlberg et al., 2001; Kafle, 2011; von Eckartsberg & Valle, 1981) Dahlberg, in her description of a holistic caring perspective in nursing studies combines fields of medicine, psychology, sociology and spirituality into a whole. The working definition of student success for this study emphasizes multiple domains, including holistic development applying to the development of the whole person across multiple dimensions; intellectual development, emotional development, social development, ethical development, physical development, and spiritual development.

Not a Reigniting of the Paradigm Wars

The intent here is not to ignite a new skirmish in quantitative versus qualitative paradigm wars, but to add voice to the many scholars within the social science disciplines who have warned of the danger of an over-reliance on positivist research methods to the exclusion of other modes of inquiry. The dominance of the positivistic paradigm has resulted in a view that it is the only valid method for research in both the natural and the human sciences (Dahlberg et al., 2001; Flyvbjerg, 2001) Flyvberg refers to this as the *rational fallacy* which is defined as “raising analysis and rationality into the most important mode of operation for human activity allowing these to dominate our view of activity so much so that other equally important modes of human understanding and behavior are made invisible (p. 23).” The difficulty here is that an over

reliance on analysis, rationality and rules has resulted in a blindness towards other ways of knowing based on context, experience, and intuition (Flyvbjerg, 2001). In *Truth and Method* (1975), Gadamer maintains the universal claim of the scientific method conflicts with the spirit of human scholarship. Galvin and Todres (2012) cite philosopher Habermas' social critique regarding "*the colonization of the lifeworld*" by social engineering, technical approaches to practical life and subjectivity, and the increasing control by "experts" of political and social life" (p. 109). In noting that there is no analogous contemporary term for phronesis, Flyvbjerg (2001) uses the language of Habermas in the describing how social sciences have allowed themselves to be "colonized" by the natural and technical sciences. These are just a few of the strongly held views that constitute a clarion call by researchers across the disciplines of the humanities and social sciences asserting that a narrow research focus based solely on positivistic methods is unacceptable. In this vein, an examination of the historical and current state of education research is provided.

Dominance of Positivistic Paradigms in Education Research

In education research the positivist paradigm has been dominant for over a century (Dahlberg et al., 2001; Darlaston-Jones, 2007; Formosinho & Formosinho, 2012; Sherman, 1992). Flyvberg (2001) asserts that this dominance of rationality as inherent in a positivistic paradigm "may endanger sensitivity to context, experience, and intuition...important for teaching, and teaching can be directly compared with the model for human learning" (p. 24).

Specific to equity issues, Lees (2007) maintains,

Western public education "has remained bound to simplistic, standardized, and large scale approaches to schooling and educational research, unable to comprehend and cater

for human diversity and complexity, and thus unable to address the very social inequities it claims to want to change. (p. 48)

Badley, in his call for a pragmatic approach to educational research, maintains this dominance has resulted in a series of crises, and offers potential remedies for each. First, the crisis of *false dualism*, between positivists and constructivists is answered by valuing both paradigms of research as useful depending on context. Second, the crisis of *false primacy*, is confronted by denying positivism a dominant role in all research. A pragmatic approach to research would not favor one paradigm over another (Badley, 2003). Positivistic methods have proven useful in coping with the physical world, however it cannot claim the same success within the complexities of the social and educational contexts (Badley, 2003; Sherman, 1992). Third, the crisis of *false certainty* is met by the understanding that positivistic educational researchers cannot claim certain truth. Rather, they offer the “possible”, “suggested” or “tentative” (Badley, 2003, p. 303). Fourth, the crisis of false expectations is again countered by the argument that educational research can only provide “tentative responses, possible reading, and suggested ideas for action and intervention” (p. 306) . Hammersley (2002) maintains that those promoting the idea that evidence-based solutions can be found for nearly all of our educational problems are raising false expectations.

In recent years the debate regarding “*the right way*” to conduct educational research has become less about educational dilemmas and more about politics and special interest influence (Hatch, 2006; Sherman, 1992). The strict positivist guidelines for “scientifically-based research (SBR)” has been institutionalized through the United States Department of Education and the Institute for Education Sciences. Scientifically based education research has been described as a conservative approach to research in which social science follows a positivist natural science

model limited to experimental and quasi-experimental studies. The phrase ‘scientifically-based research appears over 100 times in the recently vacated No Child Left Behind legislation (Bullock, 2015; Hatch, 2006), thus supporting a political agenda (Biesta, 2007; Hatch, 2006).

Positivistic methods are not the only way of knowing, and may not be the most useful for exploring open and complex problems (Badley, 2003; Hammersley, 2002; Lees, 2007).

Dahlberg et al. (2008) rejects the assumption that one basic method is acceptable. They call for a diversity of methods dependent on the nature of investigations, the questions raised, and the necessity of being open to the phenomenon. The case will be made for a hermeneutical phenomenological approach as being most suitable for this research study later in this chapter.

Philosophical Foundations of Phenomenology

"Phenomenology asks for the very nature of the phenomenon, for that which makes something what it is-and without which it could not be what it is" (van Manen, 1990, p. 10). Phenomenology began in the philosophical reflections of Edmund Husserl in Germany in the mid-1890s (van Manen, 1990). Phenomenology describes "how one orients to lived experience" (van Manen, 1990, p. 4). From a phenomenological point of view, to do research is always to "question the way we experience the world, to want to know the world in which we live as human beings"(van Manen, 1990, p. 5). Phenomenology seeks to answer the following question: "What is the meaning, structure and essence of the lived experience of this phenomenon for this person or group of people" (Patton, 2002, p. 104). A phenomenological study describes the meaning for several individuals of their lived experiences of a concept or phenomenon (Creswell, 2007). The shared phenomenon as experienced by several individuals is the defining characteristic of phenomenological research. In the case of this study, the common experience or

phenomenon is the transition from unsuccessful to successful mathematical learning for LSES students.

Phenomenology is concerned with the intentionality of consciousness. The reality of an object is inextricably related to a person's consciousness of it. Reality only exists as part of human perceptions (Creswell, 2007). Our consciousness is always directed at something in or about the world; that is, our consciousness is always conscious of something. When we are conscious of anything, we have a relationship with it. This relationship is based upon our perception of the meaning. In this way the object of our consciousness is joined together in a mutual co-construction. This intentionality is a key philosophical underpinning of phenomenology. An intended goal of the study is the explication of this meaning as perceived by the participants.

Husserl presented the concept of *Lebenswelt* or lifeworld as the world of lived experience, immediately experienced and pre-reflective (van Manen, 1990) Husserl contrasted the new theoretical attitude of western intellectual and scientific culture, with the natural attitude of the lifeworld. Van Manen (1990) identifies the differences by returning to Plato and Aristotle.

Plato and Aristotle attributed the origin of the desire to know (philosophy) to simple wonder at things being the way they are. But while wonder is a natural occurrence in everyday life, the modern theoretical attitude tends to turn us into non-participating spectators, surveyors of the world. And even more importantly (or ironically) the theoretical attitude in its modern scientific sense often silences or kills our sense of wonder — a wonder which Merleau-Ponty (1962, pp vii-xxi) described as a certain awareness, a certain kind of attentiveness and will seize the meaning of the world. (pp. 182-183)

Husserl (1970) suggested the natural attitude is always pragmatic with this sense of wonder always directed at the world. He maintained that pervading structures or styles of each lifeworld were avenues for study. Heidegger broke with his teacher Husserl, when he took phenomenology in a hermeneutic direction. Heidegger described lifeworld structures as avenues for the study of *Being*, or modes of *being-in-the-world* (van Manen, 1990). Dahlberg et al. (2008) write, “it is clear that for Merleau-Ponty, as well as Heidegger, Gadamer, and Husserl, we can never escape the lifeworld, the complex, qualitative and lived reality that is there for whatever we do” (p. 38). The science of the lifeworld allows us to look beyond scientific explanations for the events of everyday life through a “rehabilitation” of the practical wisdom of phronesis as a legitimate way of knowing (Gadamer, 2008). Phenomenology, as a foundation for research, is a philosophical way of questioning everyday experience of the lifeworld rooted in a phenomenological attitude of openness, respect and a sense of wonder (Dahlberg et al., 2008; van Manen, 1990).

Rationale for Hermeneutic Phenomenology

Hermeneutic Phenomenology is the study of experience together with its meanings (Henriksson & Friesen, 2012). Lévinas (1987) affirms this distinction stating the goal is not to “understand the object, but its meaning” (p. 110). Researchers have described hermeneutic phenomenology as an attitude or disposition that is characterized by openness (Dahlberg et al., 2008; Henriksson & Friesen, 2012; van Manen, 2002). Dahlberg et al. (2008) describe openness as “a true willingness to listen, see, and understand. It involves respect and a certain humility towards the phenomenon, as well as sensitivity and flexibility” (p. 97). Hermeneutic phenomenology is defined by van Manen (1990).

...it is a descriptive (phenomenological) methodology because it wants to be attentive to how things appear, it wants to let things speak for themselves; it is an interpretive

(hermeneutic) methodology because it claims there are no such things as uninterpreted phenomena. The implied contradiction may be resolved if one acknowledges that the (phenomenological) “facts” of lived experience are always meaningfully (hermeneutically) experienced. Moreover, even the “facts” of lived experience need to be captured in language (the human science text) and this is inevitably an interpretive process. (pp. 180-181)

Through the use of concrete examples illuminated by descriptive, reflective writing, practitioners are made available an academic discourse that moves away from theoretical generalities and towards “the particularities of engaged practice” (Henriksson & Friesen, 2012, p. 8). Henriksson (2012) contends that practitioners frequently ignore research studies as theoretical nonsense without any applications to their classrooms. A dilemma faced by practitioners is summed up by the lament that “long before teachers were forced by curricula and school bureaucracy to reduce students and their actions to theoretical concepts and medical diagnoses, they see and encounter children and teenagers in different circumstances, with different needs, dreams, and problems” (Henriksson, 2012, p. 134). She offers hermeneutical phenomenology as the missing link between theory and practice for which practitioners have been waiting. Dahlberg et al. (2001) maintain that the teaching professional is obligated “to discover and understand meaning as the *other* experiences it” (p. 22).

The research problem, or in the case of this study the shared phenomenon of interest, is the starting point in identifying an appropriate research approach (Pollio, Henley, & Thompson, 1997; van Manen, 1990). However, van Manen (1990) adds, “the method one chooses ought to maintain a certain harmony with the deep interest that makes one an educator...in the first place” (p. 2). Morgan (2011) describes this as a necessity for a “fundamental congruence and relevance

between the phenomenon under investigation” and “the research procedures selected for the study” (Morgan, 2011, p. 11). The phenomenon of interest for this study is to describe and interpret the lived positive transformational learning experiences of adult community college mathematics students. Dahlberg et al. (2001) emphasize “if we are to understand caring and teaching we first of all have to understand the lifeworlds of our patients and students” (p. 21). A hermeneutical phenomenological approach provides a path to make explicit how adult community college students experience the overcoming of economic and academic obstacles to become successful students.

The Way of Hermeneutical Phenomenology

Hermeneutical phenomenological or human science research as named by van Manen, is not a specific set of steps but a way of study or inquiry in keeping with the Greek word *methodos* (van Manen, 1990). Hermeneutic philosophers and researchers stress that in regards to the method of hermeneutic phenomenology, there is no method (Gadamer, 1975; Hein & Austin, 2001; Rorty, 1979; van Manen, 1990). As a research approach hermeneutic phenomenology can only be understood through doing phenomenology (Gadamer, 1975; van Manen, 1990). As a way of knowing, van Manen (1990) describes human science research as discovery-oriented seeking the meaning of a phenomenon and how it is experienced. According to van Manen, human science research has a philosophical framework with fundamental characteristics and assumptions. He provides the following methodological structure for human science research.

1. turning to a phenomenon which sincerely interests us and commits us to the world;
2. investigating experience as we live it rather than as we conceptualize it;
3. reflecting on the essential themes which characterize the phenomenon;
4. describing the phenomenon through the art of writing and rewriting;

5. maintaining a strong and oriented pedagogical relationship to the phenomenon
6. balancing the research context by considering parts and whole. (pp. 30-31)

When describing approaches to hermeneutical phenomenological methods, some researchers use the metaphor of a path. Morgan (2011) warns that researchers who start down this path be aware that it is a time and labor intensive style of research. Because of the fact that there are no specific step-by-step instructions to follow, the decisions made represent an evolution as the primary investigator makes the modifications necessary to meet the needs of the study (Hein & Austin, 2001; Vagle, 2014). With regards to specific decisions made as the research plan took shape, they will be addressed throughout the rest of this chapter.

Researcher Preparation

Hermeneutic phenomenology demands the researcher be a scholar. A scholar described by van Manen as a “sensitive observer to everyday life, and an avid reader of relevant texts in the human science tradition of the humanities, history, philosophy, anthropology, and the social sciences” (van Manen, 1990). Kezar (2004) maintains qualitative researchers must “read and wrestle” with philosophical texts and engage in the “debates and assumptions that shape and frame thinking in the social sciences” (p. 46). Kezar (2004) advocates that the language and thought processes of philosophy provide the researcher with the tools used to,

- 1) inform the development of research questions,
- 2) challenge and examine the assumptions and premises of theories,
- 3) identify and confront the researcher’s presuppositions and biases,
- 4) develop implications from research.

Hermeneutic Phenomenology is rooted in philosophy and as such requires deep understanding of the philosophical traditions (Dahlberg et al., 2001; Pollio et al., 1997; Vagle, 2014; van Manen,

1990). Taking this advice to heart, both in preparation and throughout the study, the primary investigator continually visited philosophical texts, with extra focus on the works of Heidegger, Lévinas, James, Dewey, Gadamer, Merleau-Ponty, and Habermas. Through an immersion in philosophy, a research stance appeared that is a synthesis of the critical pragmatism of Dewey and ethical phenomenology of Emmanuel Levinas. This research is motivated by a desire to improve social conditions based on a strongly held belief that our primary reason for being is rooted in a caring responsibility to the *Other*. The texts visited specific to approaches to hermeneutical phenomenological will be addressed later in this chapter.

Having decided on a phenomenon of interest early in the doctoral program, course projects for a qualitative research class included practice as an interviewer and interviewee, preparation of an overview of phenomenology and phenomenological research methods, and a final project that included pilot interviews of students regarding their undergraduate mathematics experience. Qualitative researchers stress the importance of researchers experiencing the process of being interviewed as part of their preparation (Morgan, 2011; Seidman, 2013). Obtaining first-hand experience by conducting pilot studies and pilot interviews is described as essential preparation for qualitative researchers (Kezar, 2000; Knox & Burkard, 2009). Thomas and Pollio (2002) recommend pilot testing of questions for all phenomenological studies. Adhering to this recommendation a pilot interview was conducted with one of the primary investigator's students who met all the criteria to be included in the study, The reason this student was not included in the study itself was due to the primary investigator's belief that this particular student was too close in that she had taken several classes with the primary investigator, and had served as a student worker under his supervision. Although data from this interview was not included in the study, it is important to note that some of the common themes that would occur across several of

the interviews did appear in the pilot interview. Conducting this pilot interview was beneficial in that it provided additional experience for the researcher in interview techniques, and allowed for the refinement of the interview protocol specific to this study.

In the summer of 2013, the primary investigator attended an Introduction to Phenomenological Research workshop at a university in a neighboring state instructed by Vagle. Workshop attendees included scholars from various universities across the country who were currently doing, planning, or had completed one or more phenomenological research projects. The experience was instrumental in increasing awareness regarding the many approaches to phenomenological research and that the lines between the different approaches are blurred (Vagle, 2014). Perhaps the most important take-away was the understanding that a much deeper understanding of phenomenological research was needed. This led to extensive reading of the hermeneutical phenomenological approaches presented in the human science work of van Manen (1990) in *Researching Lived Experience*, the reflective lifeworld approach of Dahlberg et al. (2008) in *Reflective Lifeworld Research*, and the post-intentional approach of Vagle (2014) in *Crafting Phenomenological Research*.

In January 2014, attendance at the weekly meetings with the university phenomenology group began. Collaboration with this cross-disciplinary group of university faculty and graduate students was a source of additional training on phenomenology as a philosophy, phenomenological interviewing and data analysis. The role of the group in this study will be described in more detail in the next section describing the bridling plan for researcher reflexivity.

Through this group came exposure to a descriptive-interpretive existential phenomenological approach as refined in Pollio, Henley, and Thompson's (1997) *The Phenomenology of Everyday Life* and in Thomas and Pollio's (2002) *Listening to Patients*. Vagle

(2014) describes phenomenological research as a craft to be honed, where “lines of demarcation among ideas, concepts, theories, philosophies and methodology” can be crossed (p. 15). Vagle (2014) urges phenomenological craftsman to resist following recipes, and “embrace the open searching, tinkering, and reshaping that this important work requires” (p. 104). Adhering to Vagle’s advice the steps taken in this study reflect a synthesis of the approaches of van Manen, Dahlberg et al., Vagle, Pollio, et al. Although there are difference in the approaches along a descriptive-interpretive continuum, all reflected a commitment to a whole-part-whole method of analysis. Underlying this commitment is the idea that meanings are always considered in regards to the whole, that is, in relation the context in which the phenomenon is situated. It was found the different approaches all had something to offer. A significant example of this synthesis is found in the way the primary investigator constructed a bridling plan. The interpretive research group, as described by Thomas and Pollio, was incorporated in to the bridling plan for reflexivity as described by Dahlberg and Vagle. The tinkering and reshaping as recommended by Vagle aided in the evolution of an appropriate research plan for the phenomenon under study and increases in the competence and confidence of the primary investigator as a phenomenological researcher.

Additional significant research preparation was accomplished though attendance of two annual advanced ATLAS.ti qualitative data analysis software workshops offered by the university, along with working through Qualitative Data Analysis with ATLAS.ti handbook, and online ATLAS.ti tutoring sessions. The hybrid approach adopted for this study incorporated manual and Computer-Aided Qualitative Data Analysis Software (CAQDAS). Friese (2014) warns that ideas about the data are likely to be different from the early stages to later stages of the data analysis. ATLAS.ti proved its worth repeatedly during the course of the study, which will be discussed in more detail in the following section and in the data analysis section later in

this chapter.

Bridling Plan for Reflexivity

Over the last 30 years, more and more qualitative researchers have come to view subjectivity as an integral part of interpretive research (Denzin & Lincoln, 2000; Finlay, 2009; Peshkin, 1988). Peshkin described a researcher's subjectivity as being "like a garment that cannot be removed" (p. 17). Hatch (2002) advocates for researchers to focus on "reflexively applying their own subjectivities in ways that make it possible to understand the tacit motives and assumptions of their participants" (p. 9). Erickson (1986) expressed the need for a researcher to maintain a *disciplined subjectivity*. LeCompte (1999) defines this as "the practice of rigorous self-reflection about one's own impact on the field, as well as how one's preferences, prejudices, biases, hopes, and concerns affect the course and outcomes of research" (p. 66). Since this study was conducted by a researcher-practitioner within the employing institution, the importance of full disclosure of subjectivity is magnified. Glesne (2011) warns of the potential problems with this type of backyard research, however she contends that this research can be "extremely valuable" providing there is a "heightened consciousness of potential difficulties" (p. 43). A stated goal of graduate studies in educational fields is to improve practice by providing opportunities for growth in self-reflexivity and increased understanding. Increasingly, practitioners are motivated by a desire to investigate and understand within the context of the experience of their students, colleagues, and themselves (Coupal, 2005; Henriksson, 2012). Schön (1987) described the need to bring theory and practice together as a phenomenology of practice through critically reflective practitioners operating in the dual role of teacher and researcher. Girod, Pardales, and Cervetti (2002) contend "educational research should be the province of those closest to the work, with their hearts and hands in the trenches" (p. 2).

In phenomenological research, whether descriptive or interpretive, or somewhere in between, there is agreement that the subjectivity of the researcher should be acknowledged and re-examined through every phase of the research process (Finlay, 2009). The researcher must acknowledge his pre-understandings, stance, and biases in relation to the phenomenon under study. By acknowledging one's personal feelings, preferences, inclinations or expectations the likelihood of "premature, wishful, or one-sided understandings of an experience" is minimized (van Manen, 2011). Dahlberg and Dahlberg (2003) express the need to take on a reflective research stance. In qualitative research the researcher functions as the primary instrument of data collection and analysis and as such reflexivity is essential to the trustworthiness and credibility of qualitative research (Glesne, 2011; Hatch, 2002; Merriam, 2009). Reflexivity is defined by Goodall (2000) as "the process of personally and academically reflecting on lived experiences in ways that revealed the connections between the writer and his or her subject" (p. 137).

In traditional phenomenological approaches researchers are to set aside, bracket or suspend beliefs, biases and preconceptions (Pollio et al., 1997). This concept has been referred to as epoché, bracketing, or phenomenological reduction (Dahlberg et al., 2001; Vagle, 2014; van Manen, 1990). However, researchers who assume a hermeneutic or interpretive stance see this as impossible (Hein & Austin, 2001; Pollio et al., 1997). According to van Manen (1990), "it is better to make explicit our understandings, beliefs, biases, assumptions, presuppositions, and theories"...to allow the researcher to "hold them deliberately at bay" (p. 47). Dahlberg (2006) presents bridling as an alternative to bracketing.

Bridling means a reflective stance that helps us "slacken" the firm intentional threads that tie us to the world (Merleau-Ponty, 1995). We do not want to cut them off and we *cannot* even cut them off as long as we live, but we must, as Merleau-Ponty encourages us to,

loose them up in order to give us that elbow room that we need to see what is happening when we understand phenomena and their meanings. (p. 16)

Bridling is a comprehensive approach to reflexivity that includes both the principle of bracketing, in that pre-understandings are restrained, while requiring the researcher continually reflect on the understanding of “the phenomenon as a whole throughout the study” (Vagle, 2014, p. 67). Dahlberg, Dahlberg, Nystrom and Drew (2008) describe bridling as an open and forward-looking approach that limits the influence of preunderstandings on the present. Using the metaphor of bridling as it pertains to horseback riding, the reins on pre-understanding may be tightened or loosened as necessary (Dahlberg, et al., 2008).

A methodological commitment to reflexivity “commits the researcher to continually interrogate his or her understanding throughout the study” (Vagle, 2010, p. 396). Vagle (2010) recommends that the researcher adhere to a bridling plan that includes journaling and the initial bridling statement. With these ideas in mind a bridling plan was conceived that included, 1) reflexive journaling, 2) regular collaboration with the university phenomenological research group, and 3) an initial audio and video recorded bridling interview of the investigator conducted by an experienced phenomenological researcher. Each part of the bridling plan is described in more detail.

Vagle describes the bridling journal “as a space to wonder, question, think, contradict oneself, agree with oneself, vent, scream, laugh, and celebrate” (p. 403). The reflexive journaling was accomplished using multiple methods. A small notebook was kept to jot down ideas, a small digital audio recorder or an iPhone were used to record ideas when walking or driving, word documents were used to create reading reflections and general notes, and the memo and comment functions within the ATLAS.ti qualitative data analysis application were used

extensively. This allowed for a constant reminder of pre-understandings while allowing for a reflection of what was being learned throughout the research process.

A common method to insure trustworthiness of interpretation across different approaches to qualitative research is through additional review by expert or experienced researchers (Creswell, 2007; Glesne, 2011; Merriam, 2009; Patton, 2002). Early in this study the principal investigator joined and began attending weekly meetings of the university phenomenological research group. This is a group of scholars from a variety of human science disciplines such as psychology, philosophy, literature, nursing, and education. The group focuses on utilizing phenomenological and other interpretive methods to gain a better understanding of human experience. As an integral part of the bridling plan for this study, the group's primary function was to insure that the lead investigator was consistently mindful of the personal assumptions, biases, and pre-understandings brought to the interpretation of the phenomenon under study. However, the research group support in this study went beyond the primary function to what might be described as mentoring or on the job training. The weekly meetings provided the opportunity to deepen personal understanding of phenomenological research methods through discussions with other researchers regarding their ongoing or past phenomenological projects. Activities included reading interview transcripts aloud stopping periodically to provide thematic interpretations from their diverse perspectives.

While waiting for IRB approval the group assisted in refining the initial interview prompt, and provide exposure to experienced interviewers. Upon receiving IRB approval an experienced researcher from the group conducted an initial bridling or bracketing interview which will be described in more detail later. During the Tuesday meetings printed copies of the interview transcripts were distributed to group members and read aloud and discussed by the

group, throughout the course of the study. During the discussion group meetings members made notes on the transcripts regarding their analysis of the transcripts. Those copies were then returned to the investigator for use in the iterative data analysis process. Following the review of all ten transcripts the group then reviewed multiple drafts of the researcher's thematic analysis, again returning the printed copies with their comments and suggestions. From this collaborative effort the meta-themes were identified, which will be addressed in later chapters.

The primary investigator bridling interview was conducted by an experienced phenomenological researcher from the university phenomenological group (Morgan, 2011; Thomas & Pollio, 2002). The bracketing interview is an unstructured phenomenological interview about the topic of the research study. The primary investigator then transcribed the interview and analyzed the data. Upon completion the printed copies of the transcripts of the interview are read aloud by members of the phenomenological research group and discussed. During this process the primary investigator listens without comment to the group's interpretations, reflecting on similarities and differences with the initial analysis. By beginning with the group analysis of the researcher's bridling interview, members are able "to point out whenever his or her assumptions surface throughout the subsequent interviews and/or analysis" (Thomas & Pollio, 2002, p. 34). Morgan (2011) presents two primary benefits the primary investigator takes away from the process of the initial bridling interview.

First, it gives the researcher an idea of what it is like to be interviewed on the topic, enabling him or her to experience a participant perspective on the research process. Second, it helps the investigator become aware of presuppositions, biases, values, theoretical stances, and/or previous experiences, which could "cloud" the investigators

mind (Pollio, Graves, & Arfken, 2006) and get in the way of accurately seeing and describing the phenomenon as it appears to the participants. (p. 14)

Although this research has been conducted in agreement with the stance that bracketing out pre-understandings and assumptions based on previous experience is not possible or desirable in a descriptive-interpretive study, an awareness provides what Polkinghorne (1989) described as “some protection against the imposition of the researchers’ expectations on the study” (p. 47).

Significant themes were recognized as a result of personal and group analysis of the primary investigator bracketing interview. It is important to note that the primary investigator had experienced his own transformational learning with three previous unsuccessful college attempts before his successful attempt nearly 30 years later. The primary investigator had to find ways to overcome economic barriers as part of his experience in the school of life. What was noted by the research group was the researcher’s critical worldview in regards to life that extends to research and practice. The following passage from the bridling interview was noted as important by members of the phenomenology group.

I think that we are all being preyed upon...I think we have become more and more of a have and a have-not society, so these economic issues that people use to, to divide us...to prey on people...now you see the relevance. (Primary Investigator)

This critical worldview wants to see both research and practice as a vehicle for positive change.

Several phenomenology group members used the comment “pay it forward” in response to an excerpt where the researcher described that his relationship to others, and the feeling that one has an obligation to help others, is the primary reason for being. It is important to note that the idea of helping others by paying it forward is informed by a strong sense of empathy.

Hermeneutic phenomenological research has been described as a caring act (Dahlberg et al.,

2001, van Manen, 1990). Over the course of this research project the belief in a responsibility to others and a strong sense of empathy for the participants of the study contributed to remaining open and oriented to the phenomenon of the study. Other themes appearing in the bracketing interview were critical turning points and transitions such as feelings of shame and regret that turned to success. Another theme recognized by group members were transformations of perspective resulting in changed learning dispositions, such as a greater appreciation for learning and willingness to adapt. The importance of “learning how to do school”, understanding how to navigate higher education, was also noted as significant in the bracketing interview. A final theme recognized by the group was the impact of the primary investigator seeing his mother, who had quit school in the ninth grade, complete a research university masters’ degree in social work at the age of 60. As a result of the bridling interview, a robust awareness of primary investigator pre-understandings, beliefs, and biases, was achieved. The transcript and analysis of the bridling interview was referred to periodically throughout the project to increase the credibility of the description and interpretation of the phenomenon.

Setting and Participants

Because generalization is not a goal of qualitative research, any probabilistic type sampling is not appropriate (Merriam, 2009; Ritchie, Lewis, & Elam, 2002). Qualitative research requires non-probabilistic, purposeful sampling. Samples are selected to serve an investigative purpose rather than to be statistically representative of a population (Creswell, 2007; Glesne, 2011; Merriam, 2009; Patton, 2002; Ritchie et al., 2002). Phenomenological research requires that sampling be purposeful to ensure access to participants who have experienced the phenomenon to be studied. Participants “are selected because they are “information rich” and illuminative, that is, they offer useful manifestations of the phenomenon of interest; sampling

then, is aimed at insight about the phenomenon, not empirical generalization from a sample to a population” (Patton, 2002, p. 40).” For this study a mixture of two types of purposeful sampling, criterion sampling and maximum variation sampling, were employed. The essential criterion for all phenomenological research is that the participant experienced the phenomenon to be studied (van Manen, 1990). The goal was to find participants “able to function as informants by providing rich descriptions” (Polkinghorne, 1989, p. 47) of their experiences. Selected research participants were current or former students of a large community college with multiple campuses in or near a medium-sized Southeastern city. Essential criterion included,

1. Current or former LSES Students who have experienced the phenomenon of transition from unsuccessful to successful mathematics learning experiences
2. Current or former LSES students who were required to take placement exams due to missing, expired, or below college-level entrance exam scores. These participants were either required to complete prerequisite developmental mathematics coursework or exempted from this requirement as a result a placement test scores.
3. Each participant must have subsequently passed at least one college level mathematics class.

Potential participants were selected employing maximum variation sampling across race, ethnicity, gender, age, familial and community (urban, suburban, rural) backgrounds to insure a full range of experiences related to this common phenomenon. Maximum variation sampling documents diverse variations allowing important common patterns to be identified (Creswell, 2007; Glesne, 2011; Merriam, 2009). Patton (2002) asserts “any common patterns that emerge from great variation are of particular interest in value in capturing the core experiences and central, shared dimensions of the setting or phenomenon” (p. 234). According to Polkinghorne

(1989), phenomenological studies have a typical sample size range of between 5 and 25. Morse (2000) suggests 6-10 participants for phenomenological studies with large amounts of data for each participant. Morgan (2011) suggests a sample size of 10-12 participants for phenomenological studies producing interview transcripts 15-20 pages in length. The original plan for this study was to conduct one hour interviews with eight participants, with potential follow-up interviews if necessary. However, after the fourth interview, the decision was made to increase the number to ten participants, adjusting for diversity in the levels of socio-economic hardships.

Locating participants meeting the criterion proved to be more difficult than anticipated. Developmental and college level mathematics faculty and support staff were asked to identify potential participants. Verification of SES status was achieved by examination of college financial aid records with the assistance of a financial aid staff member. Additional verification of previous unsuccessful mathematics learning experiences was verified through academic records. Initial screening pre-interviews were held to determine if the criterion was met. The purpose of the pre-interview is to establish rapport, explain the nature of the project, and to determine if the potential participant is capable of illuminating the phenomenon (Osborne, 1990). During the initial screening, participants were given a copy of the IRB approved informed consent documents to take with them and review. Samples of the informed consent documents are provided included in Appendices A and B. The researcher explained the purpose of the study and participants were given the opportunity to ask questions.

Of the students referred by faculty and staff members, eight participants were selected who met the criteria. An additional participant was located as a result of chance meeting with a former student who had earned an associate degree and had moved on to the university. That

participant referred a former classmate who was also a two-year college graduate who was working towards a university degree. Three of the participants were former developmental mathematics students in classes taught by the researcher. All of these students moved on to take their college-level mathematics course with other instructors. All ten of the participants selected were directed to take placement tests upon enrolling at the two-year college. Of the ten participants, four students had dropped out of high school and completed G.E.D. requirements. Six participants were high school graduates. Of the six high school graduates, four had experienced failure in mathematics courses at different points in their academic careers. Nine of the ten participants were required to complete developmental coursework as a result of the lack of necessary prerequisite academic skills. Developmental coursework included mathematics, reading and writing. One participant, was able to exempt developmental coursework as a result of achieving college-level scores on placement exams. Two of the participants had one previous unsuccessful college attempt, and one participant had two unsuccessful previous attempts. Six participants were white, three participants were African American, and one participant was Hispanic. Participants split evenly on gender lines with five men and five women. Participant ages ranged from 19-40. Two participants were married with children at the time of the interview. One participant was a single non-custodial parent of four children. Two of the participants were raised in rural or outlying area, two were raised in suburban communities, and six raised primarily in urban areas. Two of the urban students did move back and forth between urban and suburban communities. Poverty levels ranged from deep poverty to near poverty as described by the US census bureau.

Data Collection

Kvale (2009) asks “If you want to know how people understand their world and their lives, why not talk with them? (p. xvii). Research interviews are motivated by a desire to understand how people experience their world (Dahlberg et al., 2001; Seidman, 2013). The role of the dialogic interview as a valid research method is explained in Pollio et al. (1997).

The method or path that seems natural to attain a proper description of human experience is that of a dialogue in which one member of the dialogic pair, normally called the investigator, assumes a respectful position vis-à-vis the real expert, the subject, or more appropriately, the co-researcher. In this way a path toward understanding emerges from the common respect and concern of two people committed to exploring the life world of one of them.(p. 29)

In-depth interviews are the primary data source for qualitative inquiry into human experience (Englander, 2012; Hatch, 2002; Kvale & Brinkmann, 2009; Merriam, 2009). This is especially true in the case of phenomenological research (Creswell, 2007; Moustakas, 1994; Polkinghorne, 1989). Although the use of face-to-face in-depth interviews is common across the qualitative research traditions, the design of the interview is quite different as dictated by the purpose of the study (Denzin & Lincoln, 2003; Englander, 2012; Seidman, 2013; van Manen, 1990). The goal of the phenomenological interview is for the participants to provide a first person description of their experience of the phenomenon under study (Pollio et al., 1997; Seidman, 2013). Narratives, stories, and life histories are ways of knowing that provide access to complex social and educational issues through the concrete lived experiences of people (Bertaux & Kohli, 1984; Lindseth & Norberg, 2004; Seidman, 2013; van Manen, 2014). Dahlberg (2001) describes interviews as “collaboratively produced narratives” (p. 154) . Specific to education research,

Seidman (2013) posits, “the primary way a researcher can investigate an educational organization, institution, or process is through the experience of the individual people, the “others” who make up the organization or carry out the process.” (p. 9)

Phenomenological interviews are unstructured and conversational, characterized by openness, dialogue and respect (Morgan, 2011; Polkinghorne, 1989; Vagle, 2014). In hermeneutical phenomenological human science, as given by van Manen (1990), the interview serves two specific purposes, 1) a means for gathering and exploring experiential narrative stories as a “resource for developing a richer and deeper understanding of a human phenomenon”, and, 2) “a vehicle to develop a conversational relationship with a research partner (interviewee) regarding the meaning of an experience”. (p. 66)

Gadamer (1975) describes a phenomenological research interview as authentic and open when the questions are directed towards the phenomenon rather than the informant as a person. Phenomenological research interviews are similar to everyday conversations, where there is no intent to persuade another person to our strong held viewpoint (Dahlberg et al., 2001). Gadamer (1975) provides a description of an open conversation.

Conversation is the process of coming to an understanding. Thus it belongs to every true conversation that each person opens himself to the other, truly accepts his point of view as valid and transposes himself into the other to such an extent that he understands not the particular individual but what he says. What is to be grasped is the substantive rightness of his opinion, so that we can be at one with each other on the subject. (p. 367)

A conversational interview is a face-to-face dialogue where the researcher understands the expert is the participant (Morgan, 2011; Thomas & Pollio, 2002). As such, the participant takes on the role of co-researcher and is regarded by the researcher respectfully and appreciatively (Morgan,

2011; Osborne, 1990; Pollio et al., 1997). The idea is “to create an atmosphere in which the participant feels comfortable and safe to talk freely about significant life experiences. Unlike a structured interview, the flow of the dialogue is controlled by the participant” (Thomas & Pollio, 2002, p. 26). After the starting open-ended prompt or question from the interviewer, the initial stage is more like a monologue with the interviewer actively listening and only speaking when the participant pauses. The role of the interviewer is to follow the lead of the interviewee. Interviewer responses must be non-judgmental or matter-of-fact in order to support and encourage self-disclosure by the interviewee. It is important for the interviewee to understand there are no right or wrong answers (Dahlberg et al., 2001). Actively listening requires that the researcher avoids thinking ahead to some preset next question. (Morgan, 2011). Affirmation is provided to the interviewee with non-verbal cues such as nods. The interviewer must remain oriented to the “phenomenological intent of the interview” (van Manen, 2014, p. 316). Vagle (2014) reminds the investigator to bridle positive or negative personal responses to things shared by the interviewee.

Dahlberg (2001) recommends that through the opening question “the sphere of interest is revealed and limited, which ideally is a balance between structure and openness” (p. 158). Thomas and Pollio (2002) provide two suggestions regarding the opening question. First, the question should be worded to allow for a “wide range of descriptive responses from each participant”. Second, “discuss the initial formation of an opening question with members of a phenomenological research group” (Thomas & Pollio, 2002). After review of the pilot interview with the university phenomenology group, the following was the open-ended prompt for all ten interviews. “Tell me about your experience with mathematics going back as far as you want to go.” This open-ended prompt was non-directive and provided a wide range of jumping off points

for all of the participants. All subsequent question or prompts were dictated by the participant, adhering to an axiom of the phenomenological interview, “the interview goes where the participant goes” (Morgan, 2011, p. 18). Phenomenological interviewing requires that nothing new be introduced and leading questions are not asked (Dahlberg et al., 2001; Morgan, 2011). The role of the researcher is not to agree or disagree, rather it is “to learn as much as possible from the one who has experienced the phenomenon” (Vagle, 2014, p. 83).

The purpose of follow-up questions or prompts is to help participants focus on unfolding themes and details or for comparisons and contrasts examples. All subsequent probing questions are in the form of “tell me more about....” or “what was that like?” based on topics or events previously raised by the participant (Dahlberg et al., 2001; Morgan, 2011; Pollio et al., 1997). Here is an example from one of the interviews. Prior to this in the interview the participant had revealed having failed a college calculus class.

I: but then you failed that class at Somewhere State. Tell me about that.

P: That was a little heart wrenching and by a little, I mean a lot (laugh). Um, I’d never failed a class before that one. Ah, I’d never gotten close to failing a class before that. Um, my first C was when I got into (university), you know, besides from, from that Calculus class. It was a game changer I guess for me. Um, I thought that I could squeeze something in and it was a summer course. Just squeeze it in and get it over with and I couldn’t. I couldn’t get it. I couldn’t do it at all and um, so that would, it was a game changer because it changed the way I thought about the rest of my classes like I couldn’t do short term things and I couldn’t do um, and I learned too that if I got into a class for the first few days with a teacher that I didn’t connect with or understand that I know now that I need to figure something else out cause it’s not gonna work for me and um, but it

was very disheartening. (laugh). Um, but then I did again over a full term with a different teacher and I got through and I made an A that time (laughing)

I: Tell me about that

P: That was awesome

I: (laughing)

P: That was ah it's probably one of my favorite stories to tell. You know I failed the first time in Calculus class but the 2nd time, man I just whooped it. I got a 98 overall

I: (laughing)

P: in the class and um, but I don't and I don't know if it was, I had already heard it...but... again the teacher the one that was super enthusiastic and excited...about the Math and I enjoyed that class too. It was still very hard. I mean I still studied...I studied for that class more than I probably studied for any other, any of the other ones. Well, I know I did but getting through it and doing it and coming out with an A was, it was awesome. (laugh).

In this excerpt the participant provides the contrast between her unsuccessful and successful college experience. Thomas and Pollio (2002) emphasize that although phenomenological interviews start out descriptive, they may become interpretive as the participant reconstructs their experience. In the above excerpt, the phenomenon that is the unit of analysis of the study, the transformation from failure to success is first described with concrete examples, and then the participant provides her interpretation of factors that contributed to that transformation consistent with van Manen's (2014) description of a hermeneutical phenomenological data-interpreting interview. Another technique of the phenomenological interview is to use the participant's words when asking for clarification on something they had brought up in the interview (Morgan, 2011;

Pollio et al., 1997). This participant had used phrase “done a good job” several times during the course of the interview. In this excerpt context and meaning is provided by the participant.

IN: ...you had talked about...you said...you felt like you had done a good job. I want you to tell me more about what that means to you...a good job.

P: Good job....for me, the good job is more of a....with what I've been through, I would consider most kids to just give up...you know...and not be determined....you know...why should I even care...you know...my mom's not here or my dad's not really involved in... you know...there's so much going on, why should I even go to school? Why should I even care? And for me there was something more to it, it was...it was...like, I NEED to accomplish this. This is...umm...quote-unquote part of the American dream, to graduate... you know...go off to college, get married, be successful in your career, things like that... and I still wanted that, I still had that desire, because, when I was a little girl, it was built and instilled in me...it just dwindled when my parents got divorced. And so I still had that little bit of...hope that goodness, that, I could do it, I could achieve it...you...know... just go forward...you know... things are not where you want them to be...you know...as far as your parents being together, but you have that...opportunity to do good, to be good ...you know...so for me, that good was...okay, great, you didn't make D's and F's,...yeah, you made some C's, made some A's, couple of A's, and some B's, so you did good considering where,...considering that your mom...was a drug addict...you know...your dad...was taking care of you and your brother...you know...your grandparents helping to try...help your...dad try to raise you all...so for me, I felt that, that's my reason for....that I did good. And I didn't have any kids, I got through, that was one thing that my grandfather harped on, he said do not have kids!" in high school, don't have kids. So I felt

like for me, that was a major goal...you know...for me, not to have kids, graduate school, and do...make decent grades.

In this excerpt the orientation to the phenomenon of the transformation to success is maintained as the participant provides a personal definition of success.

Polkinghorne (1989) recommends interviews be a half hour to one hour in length. Being respectful of the participants' time and based upon experience gained during the pilot interviews, the decision was made to do one hour interviews. The participants were juggling work, school, and family responsibilities and it was believed the one hour format would reduce the need for follow-up interviews. The thirty minute time of the pilot interviews had proven insufficient in providing the rich descriptions essential to phenomenological research. As a result only three of the participants required a follow up interview, two follow-ups were due to participants needing to cut the initial interview short, due to other responsibilities. One follow-up interview was scheduled because of an information-rich initial interview, combined with the willingness and ability of the participant to articulate the experience. Each interview included a recommended final question for phenomenological interviews. The participant is always asked if there is any more that they would like to say (Morgan, 2011; Thomas & Pollio, 2002). The following rich excerpt is a result of this closing question.

I: ...Anything else you want to tell me...

P: Am I missing anything? (laughing)

I: No. No, that's just how we finish...because there's a might always be something else on your mind

P: I would like to thank you

I: Oh really (laughing)

P: Yeah, I would because um, I like talking. If this can help people, I'm honored to be a part of that. I mean genuinely. Ah, a lot of people say stuff and they don't necessarily mean it. Between me and you and that coat rack there, I'd do this job for free but don't tell them

I: I understand (laughing)

P: ...I mean that's what this is for me and so it gives me an opportunity to be able to give back a little bit and may help somebody else that's you know ah, getting ready to start a journey... just lay it right there...starting a journey...that I just came off and (knocking) and hopefully they can find the joy in their lives from this as the same as I did. I miss it. You know as...exhausting as it was, I mean and it was...I mean there was times, I kid you not, I've turned things in with tears stains on them because it felt like "This is crap and I'm turning it in but I'm out of time," ah because it wasn't as much I wanted to delve into or maybe I didn't get it as much I thought I should have and I ended up getting back an A. I've turned in test with tear stains all over it thinking "I flunked." Had the highest grade in the class. Does that show you an example of how reality and my self-perception was so skewed for such a long time...it became a joke...where I didn't even trust myself and my own feelings when I finished a test. I was completely ready for it but it was a lack of self, self-efficacy. I know I've used that word 42 times but it's...probably the greatest word I learned in college honestly...because it means so much to me and it makes so much sense to me because I think of all those years that I was told "You're stupid." Again, not in so many...I had a couple of people straight out said it but you know...for the most part, a lot of people's actions usually speak a lot louder than words anyway and ah, for me that that's how, the day I learned that word, was the day I really started

striving to fully understand that and I think I do now. I was talking to somebody the other day and I said um, “Sometimes I just don’t feel like I belong here,” and that’s the truth

I: Hm?

P: Ah, and it’s a matter of you, I’m working with a bunch of middle class people who’ve been middle class their whole life or are higher and I am still feeling like a 2nd class citizen I guess... a person asked me a very interesting question and she said “you still feel like that,” and I said “Sometimes.” I said “But, don’t get me wrong. In my job, in my office, on my turf... I own this. I own this. I don’t question myself. I have absolute confidence in myself,” and when I have a student question me, my confidence I let them know really quick... “this is foolish,” in so many words... but that’s one thing I don’t do with students. I don’t sugar coat. They’ve been sugar coated their whole life. They don’t need sugar coating now. They need progress and that’s not gonna happen unless they know exactly what’s going on so I guess that’s all I want to add.

Relating this excerpt back to the phenomenon of the experience of the transformation to success, the participant has provided concrete examples with interpretation of the before, during, and after of the experience. Among the benefits to interviewees described in the research literature is the cathartic nature of talking about their experience in the role of co-researcher (Dahlberg et al., 2001; Morgan, 2011; Thomas & Pollio, 2002). Hutchinson, Wilson, and Wilson (1994) identified the benefits of qualitative interviews as catharsis, self-acknowledgment, sense of purpose, self-awareness, empowerment, healing, and providing a voice for the disenfranchised. Rowling (1999) affirms participants have noted that the opportunity to talk openly about their experience was beneficial both to them and to others. The cathartic nature of participating in the study is revealed in this excerpt and appeared as a common theme from the body of interviews.

Common beliefs generated by the transformative experiences of the participants included a strengthened sense of empathy, manifested through an increased desire to care for and help others.

Interviews began in April 2014, shortly after identifying the first two participants, and continued through December of 2014 as additional participants were identified. Neutral settings are recommended for phenomenological interviews with comfort, convenience, safety, equity and privacy being primary considerations (Elwood & Martin, 2000; Quinney, Dwyer, & Chapman, 2016; Seidman, 2013). The location of an interview has the potential of affecting behavior and responses (van Manen, 1990). Social science qualitative researchers across multiple approaches warn of changes to power dynamics within the interview that occur based on the location chosen. The choice of location shifts dominance from the participant to the researcher or researcher to participant (Elwood & Martin, 2000; Quinney et al., 2016). With this in mind, and by mutual consent of the participants and primary investigator, all but one of the interviews were scheduled in private small group study rooms reserved through the libraries at the primary campus of the participant. As a result, the interviews were held at three different campuses. Two of the campuses could be described as urban, and one campus, suburban. The final interview was held in a communal space at the university during the Christmas break. Interviews were recorded using both video and audio equipment. Ethical considerations were addressed with digital copies of audio and video recordings secured on an encrypted, password-protected external hard drive and with backups stored on an encrypted, password-protected web-based file storage application. Pseudonyms have been used for all participants to protect confidentiality and place names have been changed.

Qualitative interviewing relies on verbal and written language to convey meaning (Hein & Austin, 2001). It is important to note that Schleiermacher introduced hermeneutics as a systematic method for the interpretation of texts (Dahlberg et al., 2008). For this study, the bridling interview and the first two interviews were transcribed by the primary investigator. The remaining interviews were transcribed by a professional transcriber referred by members of the university phenomenology group. The transcriber signed a confidentiality pledge. The transcriptions were completed by the end of February, 2015. The interviews generated 388 pages of text for analysis. Periodically, the primary investigator would watch the video recordings or listen to the audio recordings of the interviews in order to be immersed in the data.

Data Analysis

“Each qualitative study is unique, the analytical approach used will be unique.” (Patton, 2002, p 433). For this study, a systematic, iterative, hermeneutical phenomenological approach to analysis consistent with the approaches of Dahlberg (2008), van Manen (1990), and Vagle (2014) was implemented. Merleau-Ponty (2012) has described phenomenology as “the study of essences” (p. 7). Van Manen provides clarification:

...the term “essence” may be understood as a linguistic construction. A good description that constitutes the essence of something is construed so that the structure of a lived experience is revealed to us in such a fashion that we are now able to grasp the nature and significance of this experience in a hitherto unseen way. When a phenomenologist asks for the essence of a phenomenon, a lived experience, then the phenomenological inquiry is not unlike an artistic endeavor, a creative attempt to somehow capture a certain phenomenon of life in a linguistic description that is both holistic and analytical, evocative and precise, unique and universal, powerful and sensitive. (p. 39)

According to Heidegger (1971), language, thinking, and being are one. Ricoeur (1981) maintains all human interactions, all lived experiences, have a linguistic structure in some form of text. The job of the hermeneutical phenomenological researcher is to become immersed in the textual record of the interviews (Dahlberg et al., 2008; van Manen, 1990). Gadamer (1975) describes the analysis process as an interrogation of the text by the researcher and of the researcher by the text. Dahlberg et al. contend (2008) that through immersion in the data, the researcher's pre-understandings are less likely to get in the way. Vagle (2014) outlines four commitments for all phenomenological work.

1. Whole-parts-whole process
2. A focus on intentionality and not subjective experience
3. A balance among verbatim excerpts, paraphrasing, and your descriptions/interpretations
4. An understanding that you are crafting a text—not merely coding, categorizing, making assertions and reporting (p. 98)

Hermeneutic phenomenological interpretation is both synthesis and analysis. Synthesis is combining the parts to make a whole, while analysis is the reciprocal process of dividing the parts. Understanding of the participant's experience grows with each part-whole and whole-part iteration (Palmquist, 1993). This hermeneutic spiral approach to textual interpretation constitutes a systematic immersion in the data through multiple iterations of analysis and synthesis.

The implementation of the whole-part whole process was achieved with a hybrid approach of multiple iterations combining both manual and computer assisted data analysis. In keeping with the recommendations of Dahlberg et al. (2008) and Vagle (2014), the first iteration is a holistic reading of a printed copy of the entire interview text. During this initial reading notes are not taken. The objective of this first reading is getting a sense of the text as a whole. The next

iteration was a line by line manual coding of a printed copy of the text. Several different colors of highlighters were used to identify potentially significant meanings. Analytic memos in the form of researcher comments and questions were written in the margins of the transcript.

For the third iteration, digital copies of the transcripts were loaded into the ATLAS.ti qualitative data analysis program. Using the annotated copy of the transcript from the 2nd iteration, the manual line-by-line reading, in conjunction with the fresh digital copy, a second line-by-line analysis is completed. Using the quotation, comment, memo and code functions built into ATLAS.ti offered numerous advantages as the software stored, organized, and managed the extensive data set. Verbatim excerpts from the transcripts are connected to the researcher assigned codes, the researcher comments, and the memo functions. In addition the analytic memo function operates as a researcher reflexive journal. The connections to the verbatim excerpts from the transcripts created in ATLAS.ti allowed the researcher to remain true to the commitment of insuring the participants' voice is primary (Dahlberg et al., 2008; Vagle, 2014). Later in the process, themes were recognized and assigned to code families. Van Manen (1990) describes phenomenological themes "as the structures of experience" (p. 79). These code-families were eventually used to narrow down the number of themes in order to identify overarching or meta-themes. The overarching themes were developed into a thematic analysis, which was then presented over a few weekly meetings to the research group for review in conjunction with the bridling plan. Over the course of the project, the 388 pages of interview texts were painstakingly combined into one integrated, searchable hermeneutic unit that allowed for ease in moving through the extensive data set. This allowed the primary researcher to focus on the essential analytical functions of remembering, reflecting, questioning and refining (Konapásek, 2008; Saldaña, 2009). In this manner, consistency with the whole-part-whole spiral

of interpretation was maintained. The fact that the bridling interview and the participant interviews were transformed into one unit allowed the researcher to examine the phenomenon of transformation from a holistic vantage point, while remaining mindful of preunderstandings. Later in the chapter, the contribution of ATLAS.ti to the rigor of the study will be addressed.

The fourth iteration was a combination of two readings. The first occurred at the weekly meetings of the university phenomenological research group. The primary investigator distributed printed copies of an individual transcript for all members of the group. Identifying information was removed and all group members signed a confidentiality pledge. After a brief description of the study and of the interviewee, one member of the group would volunteer to read the part of the interviewer, and another would read the part of the interviewee. As in the bracketing interview the primary investigator would keep comments to a minimum after the introduction. Periodically group members would stop the reading to discuss significant passages from the interview text. Morgan (2011) describes this as comparable to a stage play with the research group members putting themselves “in the place of the participant by giving voice to his or her words” in order to arrive at a collaborative understanding of meaning of the experience (p. 25). Two primary benefits are noted here.

- 1) First, different life experiences and interpretive styles enable the research team to bring a multiplicity of perspectives to bear on the text.
- 2) Second, familiarity with the researcher’s primary bracketing (bridling) interview and spontaneous discussion of other relevant life experiences among team members empower the researchers to hold one another accountable for ensuring that each proposed understanding enjoys direct textual support. Thus the importance of communal life to scholarship is demonstrated during the interpretive stage of the

research as multiple views of a text and an awareness of one another's presuppositions help researchers produce nuanced and rigorous descriptions of phenomenal experience. (Morgan, 2011, p. 25)

A third benefit occurred when group members would discuss the quality and appropriateness of the primary investigators framing of questions or verbal prompts during the interview. In this way the interviewing skills of the primary investigator were sharpened. During the course of these readings the group members would record their own comments, and underline chunks of text they saw as significant on their printed copies of the transcripts. The copies would then be returned to the primary investigator and. At this point using ATLAS.ti, each of the annotated transcripts from the group meetings were compared line-by-line, checking for agreement or disagreement with the primary investigator's analysis. Group member comments were added as comments or analytic memos for efficient retrieval. This systematic process enhanced the rigor of the study, which will be discussed later in this chapter.

In keeping with the understanding there is no prescribed method for hermeneutical phenomenological research, there also is no prescribed coding structure. Weston et al. (2001) stress that coding does not occur prior to data analysis, but is intertwined within the analysis. They describe the "reciprocal relationship between the development of a coding system and the evolution of understanding a phenomenon" (p. 397). Central to this process is the use of analytic memos throughout the project. Among the purposes of "analytic memo writing is to document and reflect on your coding process and code choices, how the process of inquiry is taking shape, and the emergent patterns, categories, sub-categories, and concepts in your data" (Saldaña, 2009, p. 32). As the coding structure was refined throughout the analysis process, an audit trail was left, enhancing the credibility of the study. Researcher reflection through analytic memo writing,

coupled with Second Cycle coding focused on bringing categorical and thematic organization from the swamp of first cycle codes. The condensing of first cycle In Vivo codes, and continued re-analysis facilitated the movement between synthesis and analysis in keeping with the whole-part-whole demands of the hermeneutic spiral. Analytic memo writing demonstrates adherence to Vagle's four commitments for phenomenological research, and allows for smooth transitions as the researcher moves from reading to coding, and from coding to writing (Saldaña, 2009). For this study the organizational support and ability to quickly query the data proved to be the most significant benefit to using ATLAS.ti.

For the initial line-by-line analysis or first cycle of the first two interviews, In Vivo or verbatim coding was the primary choice. Saldaña (2009) explains that while In Vivo coding is appropriate for nearly all qualitative studies, it is especially useful in helping researchers learning to code data and for "studies that prioritize and honor the participant's voice" (p. 74). Charmaz (2006) contends that participant's words "crystallize and condense meaning", providing a "crucial check on whether you have grasped what is significant" (p. 57). Another first cycle coding method was attribute coding, defined by Saldaña (2009) as noting essential information about participant characteristics or demographic information. Attribute coding allows for efficient management of the data. Bazeley (2003) contends that attribute coding used in conjunction with query functions within CAQDAS programs can reveal unanticipated patterns of interrelationship, influences and affects, cultural themes, and longitudinal trends.

First cycle coding also included affective coding methods which are essential for the investigation of the subjectivities of human experience (Saldaña, 2009). Affective coding acknowledges emotion, attitudes, beliefs, and values. The phenomenon of the study is the transformative experiences of the participants. Changes to one's attitudes, values, and beliefs are

foundational to the perspective transformations associated with transformational learning experiences (Mezirow, 1991). Saldaña (2009) identifies emotions as “a universal human experience, our acknowledgement of them in our research provides deep insight into the participants’ perspectives, worldviews, and life conditions” (p. 86). Dahlberg (2008) recommends attention to expressions of emotion as essential to the goal of understanding the phenomenon. For Saldaña (2009), values coding “reflects a participant’s values, attitudes, and beliefs, representing his or her perspectives or world view” (p. 89). For this study, attitudes, values, and beliefs were treated as different constructs. Saldaña (2009) acknowledges these differences and provides descriptions of each from the research literature. Value is defined as the importance a person attributes to themselves, another person, a thing, or an idea. An individual’s values are shaped by membership within social and cultural networks (Saldaña, 2009). An attitude is the way we think and feel about oneself, another person, thing, or idea. Shaw and Wright (1967) contend attitudes are located within a relatively enduring system of evaluative, affective reactions based upon and reflecting the evaluative systems of beliefs that have been learned” (p. 3). Saldaña (2009) defines a belief as part of a system that includes our values and attitudes, plus our personal knowledge, experiences, opinion, prejudices, morals, and other interpretive perceptions of the social world” (pp. 89-90). Wolcott (1999) claims, “beliefs are embedded in the values attached to them”.

The coding structure that evolved over the course of this study is a synthesis of the literary and language coding methods given by Saldaña (2009) as motif and narrative coding. This synthesis employs literary traditions to describe and interpret “underlying sociological and psychological constructs” (p. 102). Motif and narrative coding and analysis are “appropriate for exploring intrapersonal and interpersonal experiences and action to understand the human

condition through story, which is justified in and of itself as a legitimate way of knowing” (Saldaña, 2009, p. 109) . A narrative approach to coding and analysis is a multidisciplinary approach, bringing together concepts from the humanities and social sciences. Coding and interpretation of participant narratives is approached through the multiple lenses of literary, sociological, sociolinguistical, psychological, and anthropological perspectives (Cortazzi, 1993; Daiute & Lightfoot, 2004). The interpretive tools of narrative analysis “are designed to examine phenomena, issues, and people’s lives holistically” (Daiute & Lightfoot, 2004, p. xi).

Through the use of literary devices, narrative analysis is particularly suitable for inquiries such as identity development (Saldaña, 2009).

Motif coding is described by Saldaña (2009) “as the application onto qualitative data of previously developed or original index codes used to classify types and elements of folk tales, myths, and legends” (p. 106). Bruner’s *narrative universals*, Campbell’s *Hero’s Journey* or *monomyth*, and Jung’s *archetypes, dreams, and symbols* are rooted in mythical structures of narratives that are common across cultures and time (Saldaña, 2009). Saldaña explains the benefits of motif coding;

Motif Coding is a creative, evocative method that orients you to the timeless qualities of the human condition, and represent contemporary, even mundane, social life with epic qualities. The “ogres” in our lives range from demanding bosses, to abusive spouses, to violent bullies on the playground. We “transform” ourselves on occasion, not just from one human type to another, but from human to animal like persona. Motifs are part literary element and part psychological association. (p. 108)

The hero’s journey motif as articulated by Campbell (2008) is based on the universal human themes of the transformational quest. Applying this structure as an analytic framework

provided an essential road map, allowing for greater understanding of this complex human phenomenon. While recognizing the holistic orientation of research within a hermeneutic approach, Dahlberg et al. (2008) recognizes the complexities of human experience require analytical techniques and schematic representations that allow for the parts to be used “to understand meanings and create structure” (p. 191). Rooted in an awareness of the whole, the researcher organizes the parts in order to see and understand patterns or clusters of meaning. In this way a plan for reporting the findings unfolds with the ultimate goal of creating “a stand-alone story that may depict how and why a particular outcome came about” (Polkinghorne, 1995, p 19). In a hermeneutical phenomenological approach, writing is a continuation of analysis. According to van Manen (1990), “hermeneutic phenomenological research is fundamentally a writing activity” (p. 7). Through repeated cycles of reflection on the data, the stages of the Hero’s Journey, as articulated by Campbell and Vogler, continued to appear. In this way, the phenomenon of the study was demanding the way the story needed to be told.

Hermeneutic Phenomenological Writing

The hermeneutic cycle of analysis is described by Laverly (2003) as a repeating cycle of reading and reflective interpretive writing. Analytic memo writing throughout the process allowed for analyzing and synthesizing themes from which the meta-themes appear. The process of reflective interpretive writing, combined with continually revisiting the data was essential to the drafting of the thematic analysis and the writing of the findings chapter. Dahlberg (2001) describes this revisiting.

Drawing from a developing awareness of the text as a whole the researcher then begins the organizing the parts in order to see and understand the patterns, that is, clusters of

meanings, that should be conveyed in a logical way. Hereby the researcher moves back and forth in the material. (p. 191)

As stated previously this process was used to identify the meta-themes, and construct the thematic analysis, which was reviewed multiple times by the university phenomenology group. The thematic analysis was then used in the crafting of the findings chapter.

Consistent with Vagle's fourth phenomenological commitment, van Manen maintains that doing "human science research is to be involved in the crafting of a text" (p. 78). Dahlberg, Vagle, and van Manen, value artistic approaches to the writing and reporting of hermeneutical research findings. According to Henriksson and Friesen (2012), hermeneutic research is "particularly open to literary and poetic qualities of language, and encourages aesthetically sensitized writing as a *process* and *product* of research" (p. 1). Van Manen makes an argument for the use of the story form. "On the one hand, all human science has a narrative quality (rather than an abstracting quantitative character). And the story form has become a popular method for presenting aspects of qualitative or human science research" (p. 115). In hermeneutic phenomenology the works of poets, authors, artists, and cinematographers provide access to material where "the human being can be found as a situated person" (van Manen, 1990). The phenomenon of this study is the transformational experience of those who have overcome economic obstacles and past failure, to reach academic and life goals. Polkinghorne (1995) maintains, "stories express a kind of knowledge that uniquely describes human experience in which actions and happenings contribute positively and negatively to attaining goals and fulfilling purposes" (p. 8).

Campbell (2008) makes the case that, religions, philosophies, arts, social forms, mathematical and scientific discoveries, even our dreams are rooted in the mythological

traditions. Campbell, through his work with his mentor Indian philologist and historian Zimmer, realized that the wisdom in myths was not based in abstract theories or antiquated beliefs, but timeless, practical models for “understanding how to live” (Vogler, 1998, p. xiv). Problems and solutions discovered in myth are valid to all mankind and relevant to our contemporary world. The universal themes or archetypes situated in myth are the same that have provided inspirations throughout the annals of human culture (Campbell, 2008). The narrative pattern that is the Hero’s Journey or monomyth has been identified through the literary work of writer and poet Joyce, the work in psychology of Jung, and Campbell’s study of myth. Examples of the Hero’s Journey from Greek mythology include Theseus and the Minotaur and The Odyssey. Examples from the Old Testament include the stories of Moses and Jonah. Contemporary examples include movies such as The Wizard of Oz, Star Trek, and Harry Potter. The heroes of this story are the co-researcher participants. Ordinary men and women who have been able to battle past personal and historical limitations in their personal transformational quests. Campbell (2008) claims the hero’s visions, ideas, and inspiration, are fundamental to the foundation of human life and thought. The goal of the text that has been crafted here is to reveal both the practical and inspirational meanings of this phenomenon, in a way that might be accessible to a wider audience.

Rigor, Trustworthiness, and Credibility

“One of the ways of building trust in social science research is through explaining the steps in making the study rigorous” (Rambaree, 2007). Research can be described as a systematic search for knowledge. This chapter has illustrated the systematic approach to the study. As a summary, the way specific strategies for establishing trustworthiness and rigor were incorporated into this study are identified. Merriam (2009) describes commonly used strategies for enhancing

the rigor and trustworthiness of a qualitative study. Several of these strategies were built into this study. Descriptions of these strategies and how they were addressed in this study are provided.

Researcher reflexivity is described as “critical self-reflection by the researcher regarding assumptions, worldview, biases, theoretical orientations, and relationship to the study that may affect the investigation” (Merriam, 2009, p. 229). A preliminary bridling interview was completed, transcribed, analyzed and discussed with research group. The bridling plan adopted is outlined in detail under the *Bridling Plan for Reflexivity* heading. The steps taken during this study demonstrated continuing commitment to reflexivity.

Maximum variation sampling is described as “purposefully seeking variation or diversity in sample selection to allow for a greater range of application of findings by consumers of the research” (Merriam, 2009, p. 229). Maximum variation sampling was employed in this study and is addressed under the *Setting and Participants* heading. Demographic characteristics of the participants are provided under this heading and again as each participant is introduced in the findings chapter.

Adequate engagement in data collection is described as “adequate time spent collecting such that data became saturated” (Merriam, 2009, p. 229). The rationale for the number of research participants is provided under the *Setting and Participants* heading. The original plan was to interview eight participants, however, this number was increased ten to insure there was sufficient data. At the suggestion of the university research committee, after completing multiple iterations of analysis on nine of the interviews, the first draft of the thematic analysis was completed and reviewed by the group. After the review of the initial thematic analysis the tenth interview was then reviewed during the weekly meeting to see if there was anything new. It was

determined that the experience described in the final participant interview was located in agreement with the code structure and the initial thematic analysis.

Peer review is described as discussions with colleagues regarding the process of the study, the congruency of emergent findings with the raw data, and tentative interpretations (Merriam, 2009, p. 229). Early in the course of the study, prior to data collection, the primary investigator joined the university phenomenological and interpretive research group. The research group is a cross-disciplinary group of faculty and graduate students experienced with phenomenological research. The multiple benefits to the quality and rigor of the study are addressed under *Bridling Plan for Reflexivity* and *Data Analysis* headings.

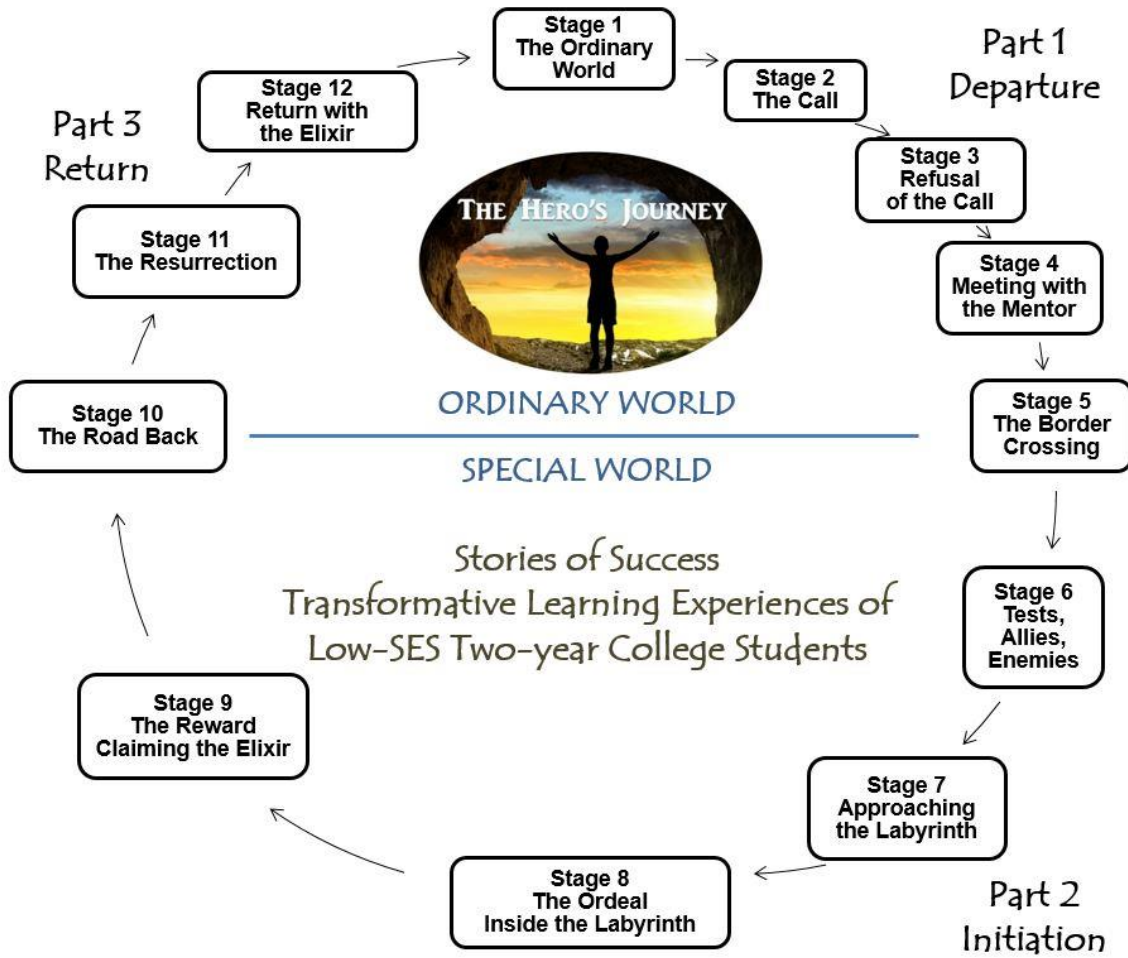
Audit trail is described as a “detailed account of the methods, procedures, and decision points in carrying out the study” (Merriam, 2009, p. 229). The methods, procedures, and decision points have been addressed throughout *Chapter 3*. The project Hermeneutic Unit in the ATLAS.ti qualitative data analysis application contains all coded interview transcripts with dated analytic memos, codes with links to quotes, comments, and code-families.

Member checks are described as “taking data and tentative interpretations back to the research participants for plausibility check” (Merriam, 2009, p. 229). Drafts of the findings chapter were sent to ten of the research participants for review. Of the ten participants, all eight who responded agreed with the descriptions and interpretations of the researcher.

Rich, thick description is described as “providing enough description to contextualize the study such that readers will be able to determine the extent to which their situations match the research context, and, hence, whether the findings can be transferred” (Merriam, 2009, p. 229). The crafting of a text that provides a thick rich description and interpretation of a shared phenomenon is the primary product of a hermeneutic phenomenological research project. A goal

of hermeneutical phenomenological research is to insure that themes are presented in the voice of the participants. Throughout the findings chapter, the reader will find the themes through the quoted dialogue of the participants. It is time for the heroes to tell their story.

CHAPTER IV: FINDINGS



Prologue: “I have no other options”

Ellen had a look about her that suggested she was older than her years. She warily approached the desk and asked *“Can somebody here, help me get into college? I don’t know what to fill out or what I need to do, but I know I have to get in school because if I don’t, I’m going to end up like dead, no money, no job. I can’t become hooked on drugs, become a prostitute...I have no other options,”*

Ellen is a pseudonym for one of the ten current or former community college students who volunteered to tell the stories of their common experience of overcoming socioeconomic obstacles, previous academic difficulties in mathematics and overall academic failure. The transformation from failure to success while overcoming life and academic obstacles is their shared phenomenon and the focus of this research. As participants in the study, these modern day heroes are co-researchers in the description and interpretation of the phenomenon of their transformation to success. They comprise a heterogeneous sample in regards to gender, age, race, ethnic background, familial status and level of socioeconomic related hardship. The sample includes full and part times students.

These stories of triumph are consistent with the universal themes of the transformational hero's journey or mono-myth as described by cultural anthropologist, Joseph Campbell in his seminal work, *The Hero with A Thousand Faces* (1949). In *The Power of Myth* (Campbell & Moyers, 1988), the following description of the hero's journey is provided.

“The usual hero adventure begins with someone from whom something has been taken, or who feels there is something lacking in the normal experience available or permitted to the members of society. The person then takes off on a series of adventures beyond the ordinary, either to recover what has been lost or to discover some life-giving elixir.

It's usually a cycle, a coming and a returning.”(p. 152)

In the cases of the heroes of this story, the life giving elixir they seek to possess is education. Stories of our heroes' journeys are told in three acts broken into twelve stages. From these powerful stories of men and women who have overcome adversity highlight themes of inner transformation, resilience, overcoming, and personal growth. However, these are not only stories of individuals acting alone. Included are tales of mentors and allies providing inspiration and

support, of threshold guardians who must be converted into allies, outwitted, or out-maneuvered, of villains and enemies as sources of obstacles, of welcoming and safe places conducive to success, and of dark and foreboding places creating roadblocks along their journeys.

Part 1: Departure

The theme of act one is departure. Our heroes tell us about their ordinary world from where their journeys begin.

Stage 1: The World of the Common Day: “I know hunger”

These are personal recollections providing glimpses into the personal histories and environment of the ordinary world of the research participants, what Joseph Campbell refers to as “the world of the common day” (Campbell, 2008, p. 23). This contextual frame of reference is provided as one of the multiple grounds from which emerges the figure of our participants’ co-constituted perceptions of their experience. A common theme related back to the participants’ world of the common day is the idea that *I am different*. Individual biographical sketches using quotes from their interviews are provided for each character as they enter the narrative. Our participants’ stories of the ordinary world of LSES students include life obstacles such as hunger, disconnected utilities, and other socioeconomic class related hardships. Participants have overcome abuse, drug addiction of parents, their own drug addiction, and more. Although one or two participants were guarded about parts of their personal history, most were candid about their difficult environments and personal demons. Carrie talks about early experiences with hunger.

I know we were poor. ...at...six years old...that's when dad got laid off...I found myself in the kitchen going through the cabinets looking for anything to eat...I KNOW hunger! ... I, I was crying looking for something to eat, I was hurt, my stomach hurt I was so hungry ... all I could find was pinto beans...I was by myself at home, I was six...all I knew to do

with those pinto beans was...pull the rocks out so I did that. I had them all ready for Mom. I said "Look Mom, I pulled all the rocks out, please fix em, I'm hungry. (Carrie)

Carrie, a non-traditional, white, now divorced, mother of two children, was born and raised in rural Appalachian coal country. Her family depended on and was subsequently shattered by the ongoing demise of the coal industry. In recalling her K-12, or as she states, her “K-10” mathematics experience, she describes her inability to grasp basic arithmetic and “all those teachers passing me on, passing me on, passing me on.” She dropped out of school at the age of 16 when she “discovered drugs and alcohol.” She was married and had first child at 18 and her second at 22. She went through a series of jobs where her math struggles, such as the inability to make change, came back and “bit her in the butt.” She was able to successfully complete the requirements for a GED, but soon she battled a serious health issue and then “about a four-year stint with the, with the devil, with the white devil” as she describes her battle with cocaine. She recalls “the highest grade I ever made in a math class was a D...that was most likely just to get me passed on.” Next we hear from Lillian.

...I was going through some things because my Mom... (clears throat)...was strung out on drugs...and so I had to stay at home...by myself. There would be times I did not have any food...and...I was responsible for getting myself up and getting myself at school. (Lillian)

Lillian is a non-traditional, married, African-American, mother of two, whose childhood was marked by family upheaval related to divorce, a parent’s drug addiction, and job loss. As a result, Lillian was forced to move between urban, suburban, and small town communities, changing schools frequently during her K-12 years. After her parents’ divorce she eventually ended up living with her father through high school. Two months before her high school graduation her father “lost his job that he was on for like 24 years...and, so I was having to...take

care of the bills, things like that on a six dollar an hour...job.” Shortly after high school Lillian struck out on her own, working in a bakery. Lillian enrolled in the local community college and attended briefly during this time, but it did not go well, as will be described later. Not long after Lillian “was involved in domestic violence” which resulted in another series of moves. Over the next several years she would meet her husband, start a family while remaining in the workforce. After her marriage she had a second attempt at college that was interrupted by “baby number two.” Next we hear from Elijah.

...my mom, she was always, she was a single parent so it, I kind of had to...learn how to be a man...when I was in high school... I worked and I paid bills...when I was 16 years old...Sometimes I had to do things that I did not want to do or did some things that would be inappropriate to talk about, but I had no choice because I had to...my mom was a single parent, you know and you know the KUB bill man or the rent person ...they don't care...they want their money. (Elijah)

Elijah is a traditional, single, African American male, who was raised in an urban community by a single mom, who “did the most she could do” for Elijah and his sister. Elijah talks about his mother as being “stuck...to provide for two kids, without the father being there...how it is with a lot of families...the father is just out of the picture...and she just has to do...all she can do...strap on her seatbelt...and just go.” Elijah talks about his sister’s pregnancy. “...then we had another kid in the house...but my mom did all she could.” Elijah states he always liked mathematics and did well in the classes even though he “didn’t really try that much.” Elijah talks about an experience during high school where “something tragic had happened...and it kind of threw me off for a minute.” He describes a period in high school when he “...didn’t really try that much...didn’t do a lot...I didn’t really care about school...I had a

lot...going on that distracted me.” It was during this time he took the ACT and scored below college-level in mathematics and English. Although Elijah maintained a high enough GPA to qualify for a HOPE scholarship, he still would be required to take placement tests soon after enrollment at the two-year college. The next participant we hear from is Howard.

...we’ve basically lived in the projects...its crazy seeing what I’ve seen...I seen a dead body when I was...14...on the concrete and it freaked me out...it is not like you see it in the movies. When you see something like that in real life, especially as a younger child ...it’ll get you...I remember it...I didn’t think right for a week. (Howard)

Howard is a traditional, single, white student raised in an urban community. His family situation was difficult. Neither of his parents had graduated high school and his Dad “definitely had his struggles.” Howard’s parents “kind of separated...”when he was “about 13 or 14.” During his senior year Howard and his twin brother “...left our Mom’s house” due to an abusive step-father. Howard remembers his step-dad “was a prick...he’s in prison right now if that tells you anything, for a long time.” His brother caught “more of his stepfathers wrath...he would yell at my brother for the dumbest things...like for reading a Harry Potter book...he would not just yell...cuss at him...he just gave my brother so much hell...we just got tired of it.” Howard recalls how people at their church respected his stepfather who would occasionally preach. No one “really knew his true side except my brother and I and my Mom”. His stepdad finally “more or less put my brother out.” Howard recalls telling them “straight up...if my brother leaves, I’m leaving with him...it’s been rough from that point...him and I both moved out.” After staying with relatives a while, they “got a place together.” Howard graduated from high school on time and his brother graduated a year later. Howard describes mathematics as the subject he “enjoyed the most.” He remembers doing “fairly well in high school” although he thought it “was kind of

a joke honestly”. As with Elijah his ACT scores were below college level even though his GPA was “decent.”

We will move from these descriptions of life obstacles to stories of academic obstacles and previous academic failure. Six of the research participants graduated from high schools, four dropped out of school and earned their GED at some point. Of the six who graduated from high school, all were required to take placement tests due to either not taking the ACT, scoring below college-level on the ACT, or the ACT scores had expired. Two participants, James and Rachel, had college-level ACT scores out of high school and were accepted and enrolled as traditional students at public universities. However, neither James nor Rachel were successful meeting the demands of college on their first attempt. The degree of socioeconomic difficulties for these two students was different than the other eight participants, as shall be seen in their biographical sketches as their voices enter the narrative. The academic experiences of failure and struggle provide additional support for the participant’s common perception, *I am different*.

I had literally, literally out of the 4 years that you go to high school, I had been in school for 6 months combined, not even...straight in a row...1 ½ months at...a state’s custody school that’s not even...public. They...would give us... 2nd grade worksheets. There wasn’t even a...real teacher...she’d come in once a month and give them a curriculum to follow and a staff member actually passed out your work... (Ellen)

Ellen was heard from in the prologue. Her story is so powerful that a second follow-up interview was conducted. Ellen is a non-traditional, Caucasian, student. She is now in a committed relationship with a young son. What Ellen remembers of herself in middle school was a student who “hated math” and “never took a book home...never did homework...flunked straight out of my classes...I didn’t care...I wasn’t worried about it at all.” The dysfunction in

Ellen's family was the most severe of all of the participants. Her mother and stepfather "did drugs", "sold drugs" and her stepdad was "in and out of rehab". She recalls her mother having "serious mental problems...she (her mother) was severely abused as a child." Her father has been in prison for most of her life "since he was 19 years old." Ellen's own adventures with drugs started early. She recalls finding "some pot with my friend in my parent's room when I was in the fifth grade and tried it." By the time she reached the eighth grade she was suspended from middle school for 180 days, after one of her friends found her mother's "pills under the bed", brings them to school, and "starts passing them out to people in the auditorium like skittles." She recalls the exaggerated press coverage, "that it was like a big drug ring". Her suspension combined with her mother not following through on getting Ellen to an alternative school stretched into what would have been her 9th grade year.

Around this time her father was released from prison. He talked her mother, into letting Ellen come live with him. She talks about how her father let her smoke cigarettes and pot even though she was only 12. Ellen remembers that within a few months he "systematically cut off contact to anybody she knew...then began to abuse me..." She describes her father as "really deranged" with the "abuse going on for two years." Ellen recalls being "rescued from the situation" when her uncle's wife "actually walked in...on me being abused." She remembers her aunt "walking out like nothing had happened, like she didn't see anything...but her aunt had seen what was happening. Her aunt "turned it into Child Protective Services" and "reached out to my mother and stepfather." She describes her experience as "being completely brainwashed, by this evil entity of a person...I was scared to death of him...I had literally no contact with anybody except him...thinking that nobody cared about me, my mother didn't care about me. Nobody cared about me." Her father was sent back to prison where he will be "until...the year 2030."

Ellen spent the next few years in group homes with limited access to education. She was “just in high school for about five months.” At the age of 17 she dropped out of school and enrolled in a GED preparation class, which she successfully completed, passing the GED on her first attempt. After a few years in group homes, custody was initially granted to her biological father’s mother, her grandmother. Right before she turned 18 custody was transferred to Ellen’s biological mother. Ellen found living with her grandmother difficult. She had found a job at a large grocery store and “saved up all” her money, and “gave it all to her (grandmother) for a car she sold me.” Even though she did not have a driver’s license and, since she was still 17, risked being sent back into state custody “she put some stuff in that car, my clothes and left everything else.” She moved in with an old friend from the trailer park where they both lived when she was five years old.

Eventually she moved in with a boyfriend who “was taking all of her money...driving her car around...doesn’t work”. It was at his point in her life that she was introduced by a cousin to the world of exotic dancing. Ellen remembers feeling she had no options, her first night with a “veteran dancer...helping her out...” she left the club with \$550. She would spend the next two years in a lifestyle where there were ever-present dangers. Ellen recalls that other “strippers went to prostitution...or they’re strung out on drugs.” Next Emma tells her story.

...the CPS workers came out to our house so much... “Oh, well this week it’s du du du... even though we know it’s not true, we still have to investigate it...” So...that was one of the main reasons why I stopped going to school...I was afraid that I might be taken away cause they would visit you at school. They’d visit you at school first, then they’d visit you at home but I was afraid that you know I just, I was afraid that I’d be taken away so I just I guess because of that, I guess I just kind of rebelled and then just didn’t go to school. I

mean...even as far as to tell them I wanted to go to juvenile instead of going to school when I was a sophomore. (Emma)

Emma is a traditional, white, single student, who was raised by a single mother. Emma recalls having “a lot of things going on in my family” during her early high school years. She “thought Algebra was pretty difficult” and “just didn’t apply herself.” When describing her Algebra 1 experience she “didn’t understand it” even after seeking help from her teacher. “I gave up before I even tried, really...I just couldn’t do it.” During this time Emma’s “granddad passed away” and her mother gained custody of 3 nieces and nephews plus Emma’s two sister’s meant there were “six kids in the house and my Mom a single parent, so she had to work and I was pretty much like the Mom while she was at work.” Her Mom was working night shifts as a bartender. “I had five kids that I had to get ready, you know for bed and dinner and baths...for homework and all that...get them up for school in the mornings and everything.” Her Aunt, upset that custody of her children had been granted to Emma’s mother” “was constantly calling DCS (Department of Children’s Services) making false allegation after false allegation”. Emma failed all of her classes the second semester of her sophomore year as a result of not attending.

With encouragement from a friend’s mother and her high school math teacher Emma “got it in gear,” but now she faced new academic obstacles due to losing a semester. She recalls coming home crying from school because a high school counselor told her she was not going to “graduate on time and...needed to look into being an ultrasound tech” rather than pursue her passion to become a veterinarian. During Emma’s junior year in high school when her workload was pretty heavy, “the landlord booted us out...we had thirty days to move.” Emma’s mother’s boyfriend lived in another county approximately 60 miles away which was their only option. This move would require a school change and new obstacle created by No Child Left Behind

(NCLB) pressures. She met with the principal of the new high school who told her only option was a fast track program rather than the regular high school. She remembers being told I would not be allowed to enroll in the regular high school, because “they’re rural out there...they really don’t have a lot of funding” and she “would go against their graduation numbers.” The option they presented to her was to go “a separate building from the high school full of computers...and you just sit on there all day and do stuff on the computer to get your credits to graduate early.” Emma “didn’t feel like that was right because why should I graduate early when I failed so terribly, you know my sophomore semester. I just didn’t feel like I’d earn by degree or my diploma.” She found a way to outwit the system and graduated on time from her original high school. Two weeks after graduation Emma “moved out with a boyfriend, probably wasn’t a smart idea, and...started working and...worked for probably 2, maybe 3 years, the whole time I was out of school.” Next, Moses tells us his story.

Well...you know when you young, you can’t wait to get out of school. You want to do what you want to do pretty much and that’s...what I did you know after high school man, I done what I wanted to do you know and you work a job. (Moses)

Moses is a non-traditional, single, African-American, father of four children. He was raised by a single mom with two brothers, one older one younger. He recalls his mother always being supportive with homework help and encouragement. Moses still has the pictures his Mom took when he became a “Multiplication Movie Star” early in elementary school. However, “elementary school was a struggle.” He recalls learning as “a slow process”, and described himself as “slow.” He struggled, with everything seeming “fast paced.” When he was “catching on just a little bit we were moving on to something else...” His mother continued helping him for as long as she could, but “when I started moving...up to middle school and high school the

Math started getting a little complicated for us.” He remembers his mother telling him “You better ask some questions.” Moses recalls he did not want to ask questions because “Man, they’re gonna laugh at me.” His mother had graduated from high school and was able to help him with his English classes, and his older brother helped with his mathematics homework. Even though Moses liked mathematics, his grades steadily slipped. He remembers his middle school mathematics class as “where...a lack of confidence in...Math, you know in my ability to learn really kind of kept me from trying to learn, studying, asking questions, you know that kind of stuff that help you to get it...” Although by the time Moses entered high school he “was a little more focused in...trying to learn math” he was not getting any more help outside of school. As he left each day he was “done with school...I’ll be back tomorrow.” Moses dropped out of high school in the 10th grade and went to work. Next Ben enters the story.

I dropped out of high school after that and a lot of, a lot of people that was in my high school was dropping out. I remember people just, you know, just walking out of school, you know and half way throughout the day and anyway, I just eventually dropped out.

(Ben)

Ben is a divorced, non-traditional, Hispanic student. His mother was “deaf so we got to talk in sign language...that language is limited.” Ben suggests that his mother’s handicap resulted in her being “very over-protective of me.” He describes his father as a good father, however a “weak...passive person” who “was just broken down cause he was abused when he was young.” Ben describes his father as having “handcuffs on cause my Mom wouldn’t let him do anything.” Ben’s father wanted to “teach me Spanish” but his mother “didn’t let him teach me.” Ben doesn’t know his father’s side of the family “because my Mom didn’t want me to know.”

Ben describes his high school math experience. “I remember the teacher, she was giving a class...if not P than its Q. If it’s Q, than it’s not P. ...I remember it starting out easy but then it starting having like twists and turns and I got lost in that math class and I didn’t really understand...how could...math help me. I didn’t understand the Math that she was teaching...I didn’t understand how it was gonna help me out in my life so I didn’t really try too hard in Math.....I dropped out of high school after that.”

After Ben quit high school he successfully completed a GED program and attempted to join the Army. He describes his motivation for joining as a need to get away from his mother. “I felt like she was keeping me from exploring the world and who I was and I just couldn’t take it no more and the Army was the only option.” It was at this point his difficulties with his mother came to a head. “My mother didn’t want me to join the Army, so I went to the recruiting station and she basically followed me to the recruiting station and like humiliated me.” When Ben went home “I just had...a mental breakdown and the police came...I started expressing...suicidal thoughts and the police instead of putting me in jail, they felt like I would be better if I went to the mental hospital.” Ben eventually “tried to commit suicide” and social services assigned a psychiatrist. He remembers the psychiatrist asking him “why...do you want to kill yourself.” He recalls the doctor telling him “I don’t care” and “just walked out of the office.” He remembers not getting a single letter from his mother or father while he was in boot camp and no one came to his graduation. Ben said “that’s when I realized...I am not like everybody else.”

Our next participant, James describes early difficulties in the transition from middle school to high school.

...my freshman year I started out in a lot of...college prep advanced placement courses, that kind of thing, and that didn't go well (laugh). ... I don't know if it was just making the

jump from middle school to high school, that was partly it...and, I had gotten used to just getting by in middle school because... I was basically, smart enough to get away with it without really doing much... you can't do that when you start to learn algebra (laugh)...you've actually got put some work into it, and I hadn't had to do that...really, in any of my classes for, you know, four or five years. (James)

James' personal history is different from our previous eight participants. James' family was middle class during most of his K-12 years, however his father found his job as a retail manager unfulfilling and had enrolled in college as a non-traditional student. His mother, a stay at home mom, also enrolled in college as a non-traditional student studying to be a social worker. James remembers "economically it got really tough" when his father was eventually let go from his retail job due some "big cutbacks." His parents separated during this time and his mother went into the workforce. After his parents separated his father "would help out with the bills...but there was a lot less coming in." His father eventually earned his bachelor's and master's degree and entered the teaching profession but he "wasn't making as much teaching as he was with the department store." James remembers this all happened during his junior and senior years in high school. Even though his parents had separated, and the family standard of living had changed he was "not sure that ever really affected me academically." He recalls doing "really well, except for the Algebra...I had a hard time with algebra". Even when James was struggling with the transition to high school, he recalls having available support through his family, but not accessing that support. "...there were people there for me...it wasn't like... I didn't have...support...I did, I just didn't know how to use it very well."

After doing better his junior and senior year in high school James recalls, "I ended up alright... graduating on time...getting everything done I needed to...did well on the ACT...did

well on the math part of the ACT...26 or 27... it turned out OK.” A few days after he turned 18 James was a university student. James describes his first attempt at college. “I wasn't mature enough to handle being in college and balancing trying do...the stuff with the band...I was working part-time...I had a lot going on and I just didn't know how to balance it all out...I wasn't used to having all that, you know, with high school...it just...didn't work”. After one unsuccessful year at the university James would move into the workforce for several years.

Like James, the last participant to introduce, Rachel, was raised by both parents in a middle class family. Rachel describes her first attempt at a large university.

...the biggest reason I went and then probably also the biggest disappointment that I've had... I went there for my grandfather and I failed... I was very scared...looking back now, I can tell I wasn't prepared. ... the classes that I had...there was no math... I had an English and or 2 English's I think and... a music class. Um, and I was doing well enough in the classes not, as well as, you know I wanted to. You know (high school) just kind of pushed through with A's because they knew they weren't teaching...not doing well as I wanted to, not having the...right study habits...I didn't have as much of the discipline as I needed. I had enough discipline to get me through (high school) because I did...want to learn but then when I got...down there, I don't know what happened to me. I just, it fell apart because...I didn't know what to expect. I wasn't ready. (Rachel)

Although married with a new baby today, Rachel was a single, white female student, raised by both parents with younger siblings. Her father is a farmer with a small business and a degree in Food Technology. She attended a county public high school serving both suburban and rural areas. Rachel's economic status as a young adult was determined by decisions she made after her first unsuccessful attempt at a large public university which lasted “about three months.” She

remembers being a “homesick little girl...never been out of (outlying county) before...very unprepared for an intense academic experience.” After leaving the university she “went into the service industry for about five years.” She recalls, “I was a waitress and...I was in a bad relationship”.

Although the level of socio-economic obstacles and degrees of academic failure differed, each of the heroes in this story would experience mathematics as a gatekeeper along their journey. For all of the participants, mathematics presented cognitive, emotional, and social barriers. Evidence of these barriers included failed mathematics class, insufficient high-stakes testing performance, and the inability to perform mathematical tasks within various job functions. Lillian describes her struggles with mathematics in elementary school. “...*third-grade was very difficult for me when it came to math...and I didn't want to do math at that time. In third-grade it was just like a whole different level...*” Moses remembers his struggles with mathematics in both middle and high school. “...*when I went to middle school and high school, it was like “Man, I just got to pass this class because I don't know this stuff.* A common theme for several of the participants is their mathematical difficulties related to their introduction to algebra. James recalls having an easy time in school mathematics “*until I hit algebra and then that was like a stone wall for a couple years.*”

Participants also described job experiences where difficulty in using basic arithmetic for tasks such as making change resulted in struggles to secure and maintain employment or get promoted. Carrie recalls her experiences in trying to become an EMT.

I was able to take an EMT course for free, a six week course. ...the first time I took that test I failed it... just barely failed it, we'll just say it that way. I don't remember exactly how much, but it wasn't by much, and it was math related questions that I failed because

of... that lack of foundation. (Carrie)

The ordinary world for our participants is a world where basic human needs, things most of us take for granted, is the priority. Life is dominated by finding ways to get by based on the tyranny of the moment. Frequently emotional or chemical dependencies emerge as ways to cope. For many there is a fatalistic acceptance that life is acceptable as it is. But for the heroes in this narrative there grows a desire for something better.

Stage 2: The Call to Adventure: “wanting something better”

All of the participants describe a growing awareness of a need for change. Campbell (2008) describes this stage as the Call to Adventure. Vogler (1998) states this is the stage where the “seeds of transformation and growth are planted” (p. 99). For some these are external pressures, for others the pressure is more internal. A desire to be a better provider, to be a better example for children, to escape from uninspiring or undesirable jobs, or to overcome addiction are factors central to the overarching or meta-theme participants describe as needing *something better*. The participants’ customary coping methods are no longer sufficient. Sometimes there will be an event that serves as the last straw propelling the hero into action. These events are consistent to the theme turning points from the Howard (2008) study of phenomenological of perceptions of developmental mathematics students. Carrie describes the call rising up in her.

And I was tired of being a loser, plain and simple. I was tired of being a loser! I was tired of having to be bailed out, not of jail. I never went to jail. I was smart enough to not go to jail. But, bailed out of life, you know. "I'm getting evicted again, Mom. Can you help me out?" You know, I was so sick of that. I was soooo sick of that! ...in recovery they have a saying. You're sick and tired of being sick and tired. Boy was I ever. I was sick and tired

of being sick and tired. I was sick and tired of being a loser. I wanted people to, to look at me and think, "Wow, she's amazing." (Carrie)

Participants' world of the common day begins to be seen as a place from which they must escape. Ellen described arriving at the realization that she had to make a change.

...and then for the next 2 years, I got into this life...this fast paced life of dancing and quick money, easy money, using people for what they had, using people for money, you know and I realized that "I can't do this. This is not me. This is not where I want to be... I can't...do this for the rest of my life...I have got to make a change...

...realized "This is my future...if I don't do something. This is my future," ...I had to make a decision either I'm gonna stay in this...and become an even worse person than it's made me so far and become a prostitute, be a stripper for the rest of my life...become strung out on drugs... if I don't make a change. So, that's when I decided I have got to get in school. If I don't do something to better myself, this is the only road that I'm on...and it's headed straight into a brick wall...I needed to get in school. (Ellen)

Elijah stated he had to *change his pathway.*

Well it was a change that wasn't...wasn't by choice. You know it had to happen like it was easier to be stuck in this certain situation or...try to get something better for yourself. (Elijah)

Emma described working in *fast food...dead end...department store jobs.* She recalls *that it really just opened my eyes to this is not what I want to do. This is not for me.*

Nearly all of female participants described the need to escape abusive or bad relationships as contributing factors to their decision. Rachel described her life after her first failed university

attempt as being a waitress and in a bad relationship. Here she describes the beginning of her transformation.

I was a waitress and... I was in a bad relationship and finally had the nerve to tell someone I was in a bad relationship and that motivated...me...having someone actually know what was going on, ...got me going to get out of the relationship...and then I decided I needed to or I didn't want to serve anymore so I needed to get a degree (laugh). I needed to have some kind of education so I looked into Somewhere State. (Rachel)

Another reoccurring source is the desire to both create a better future for one's children and set an example for one's children as to the importance of pursuing education. In this excerpt, Moses explains.

You work a job, you know try to take care of your family and the over the years, you start to realize that this job is not gonna be able to supply all the needs...it's not gonna be able to take care of your family...if you want better than you have to go do better. So, you know a lot of times, you know we'll work...we'll work one job and then we think we need more money so we'll go get a part-time job and we'll start working, you know 2 fulltime jobs and then you never have time to spend with your family you know and that makes it rough when you do that over the years and then you go from...fulltime and part-time back to quarter time and, and you still never reach that peak or you still never get to a level where your financially stable enough ah, to support your family... I realized that the only way for me...not only to be a leader to my children and show them that I'm leading by example...that education is...the foundation...you realize...you want to set the example and not only that, you want to take care of your family... "How am I gonna do

that?” and you realize “Well, you got to go back to school.” you know you got to get education (Moses)

A few of the participants recalled seeing the struggles of their parent or parents as the source of their call to something better, especially among the male participants. Howard describes this along with an explanation as why he sees education as something to be valued.

...I guess the path he was going and the path my mom was going and I just realized that...I did not want this to be me...I want to do things and I want to see places and I knew that I wasn't gonna be able to do that without an education. I want to see...some of the wonders of the world...I want to go to Hawaii...I want to go Puerto Rico...I want to travel...I mean I won't say it's just solely those things but it's just little things like that, that I've just have seen, seen over time. That just made me realize like how important education really is (Howard)

Education as something to be valued is one of the overarching themes across all of the participants' stories. Education is portrayed as a need essential to their life rather than something they want. Education is viewed as the essential magic elixir to bring about something better. The magic elixir needed to positively change the personal and family trajectories of their lives. As he is about to embark on his own hero's journey in the movie *A Knight's Tale*, young William asks his father if a man can “change the stars”? The heroes in this story begin to believe they can through the pursuit of a college education. The participant perceptions at this stage of their journeys are the seeds of transformation that will sprout and grow over the upcoming stages. However, sometimes heroes will hear the call and not want to answer.

Stage 3: Refusal of the Call: “didn’t think about college...no more”

Campbell (2008) describes the Refusal of the Call. “The myths and folktales of the whole world make clear that the refusal is essentially a refusal to give up one what ones takes to be one’s own interest”(p. 49). He asserts the refusal is based in a fixed system of beliefs regarding the future. All of the participants in this narrative heard the call to adventure, but for a variety of reason there were delays and false starts in answering the call. All along the journey heroes will have to find ways around or through both external and internal threshold guardians. The character archetype of the threshold guardian is a source of challenges and tests that heroes must overcome or pass in order to progress along the journey. External threshold guardians appear in the form of the ordinary obstacles or sources of resistance that are common to living. A weather delay when traveling is a form of a threshold guardian. Frequently other people serve as threshold guardians. This is often the case when dealing with large bureaucracies such as public colleges and universities. The principal at the high school that would not allow Emma to enter as regular high school was operating as a threshold guardian. Vogler (1998) in *The Writers Journey* provides a description of internal threshold guardians.

...on a deeper psychological level they stand for our internal demons: the neuroses, the emotional scars, vices, dependencies, and self-limitations that hold back our growth and progress. It seems like every time you try to make a major change in your life, these inner demons rise up to their full force, not necessarily to stop you, but to test if you are really determined to accept the challenge of change. (p. 50)

For the heroes in this story delays in answering the call are rooted in internal causes stemming from their attitudes, values, beliefs and emotions. In this way fear, doubts, and a lack of confidence become paralyzing, resulting in the refusal of the call to adventure. Normal human

coping strategies of avoidance and procrastination became the primary way of dealing with the realities these internal threshold guardians. Moses describes this in the following excerpt.

I procrastinated with it “Well, I’m a, I’m a go back. I’m a go back,” and then you, you never get around to it and then you get stuck at a dead end job and it’s like you got to work there for 10 years and like then you might be supervisor after 10 years... (Moses)

Emma tells a similar story.

...I didn’t get back into school exactly when I wanted to...I actually did wait too late. I wanted to only take a year off and then you know, go into college um but that year kind of manifested into I want to say maybe 2 or 3. I can’t really remember. (Emma)

Ellen describes the internal struggles she dealt with in her temporary refusal of the call.

...when I thought about it, it was intimidating but I knew like I said if I could just get through the intimidation, the feeling like people were looking at me or thinking “What is she doing here?” or “She’s not good enough,” (Ellen)

Internal threshold guardians were not the only sources of refusals of the call. Many of the participants were faced with a conflicting call due to a lack of financial resources requiring participants to prioritize taking a job over enrolling in school. Moses talked about his rush to get out of school so he could go to work. Howard delayed his college enrollment and took a job immediately after graduation because he and his brother were already living on their own and his brother still had another year of high school. Lillian took a job immediately after high school and moved out of her father’s house where, while still in high school, she had already been helping to pay household bills with her minimum wage part-time job. Lillian enrolled in a local two-year college and after filling out her placement test “putting, C, A, B, C, A, B, spelling CAB.” She recalls being “so upset with the fact” that she had to take developmental course. The

developmental courses were self-paced delivered via computer application with limited interaction with faculty or tutors. Lillian picks up her story. *I...failed the first two modules. At that time, I gave up...I said forget it...went back to working...didn't think about college at all...no more.*

For James and Rachel refusal of the call came in the form of an early exit after unsuccessful initial attempts at large universities. They both described “not being ready” for the demands of college. The internal threshold guardian for James as an 18 year-old university student was “a lack of maturity.” His external threshold guardians were what proved to be the overwhelming demands on his time from school, his part-time job, and his extracurricular activities with the university marching band. He recalls having “too much going on...didn’t work.”

Ben’s story is one of external threshold guardians in the form of resistance from his superiors while serving in the military. He talks of trying to secure permission to start taking college classes.

...the Army did not, did not promote...the soldiers...going to college...they discouraged...people ...from going to college...I felt like...they make it harder for the soldiers...even when they...do have the resources...I remember when we couldn't go to the field so I'm telling em... “Can I go to, can I go to school after work?” ...they keep denying me... just going back to the barracks drinking...there's nothing to do but drink and I'm telling em “ I want to go to college,” ...I got all...of the people in the chain of command...to sign off on it...they dragging they feet about it...(Ben)

Previously Emma’s story has provided the example of the high school counselor who deemed it appropriate to discourage her from pursuing her dream to become a vet. Ben’s recalls the doctor

who told his father that he “wasn’t college material.” In this context these threshold guardians are reinforcing the norms of the participants’ ordinary world and sending a powerful message. Do not try to go outside the borders of your culture, and with this message, promoting refusals of the call. A major test for the heroes is learning to recognize and successfully deal with threshold guardians. As will be seen in later stages, successful heroes become adept at converting threshold guardians to allies or mentors. If that is not possible, threshold guardians must be outwitted, outmaneuvered and in some cases, overpowered. As our heroes successfully navigate the refusal of the call stage, demonstrating increased skill in dealing with internal and external threshold guardians, the seeds of transformation planted during their respective calls to adventure begin to take root. In stage 4 of the journey, participants talk about those who provided motivation and inspiration.

Stage 4: Meeting the Mentor: “Because of her I felt like I could do it”

The mentor archetype is a character that serves as a source of inspiration, motivation, overcoming paralyzing doubts and fears. As with threshold guardians, mentors can be external, people or objects, or internal, such as an individual’s conscience (Vogler, 1998). In the case of this narrative most of the mentors described are physical people, although there are examples of inner mentors in this stage and at other stages throughout the journey. In our participants’ stories there are references to multiple mentors throughout different stages of their journey. Although in some stories parents may have made a good mentor in some aspects, frequently they are not able to provide the types of mentorship necessary to meet the needs of the academic world in which they are unfamiliar. It is not unusual for heroes to seek out mentors, when their own parents are unable or unwilling to fill this role. Campbell (2008) has found “the higher mythologies develop the role in the great figure of the guide, the teacher, the ferryman, the conductor of souls to the

underworld” (pp. 59-60). A common theme amongst the participants in this narrative is that teachers and social workers are the people most frequently remembered as the inspirational and helpful mentors. Influential teachers play a special role in these narratives. They have survived their own hero’s journey through the special world of academia, and as such are well-positioned as experienced veterans and role models to provide necessary guidance in preparation for a strange new world. Carrie tells the story of the adult educator in charge of her GED program.

„the lady who ran that program...her passion was just to help women, that had a lack of education come out of that. I'll never forget, I'll never forget her for that because she helped me prepare for that GED. ...she tried to teach me how to type (laughing)...I'm a typing teacher's worst nightmare, but I get it done, so that's what matters, right? But, she helped me prepare for that GED. She did the practice test, she taught me, worked with me... (Carrie)

Emma’s story provides an example of a continuous mentor as described by Vogler (1998).

Emma’s mentor a high school and later community college teacher just kept showing up in her life.

...when I was in Foundations, I actually...(was) scoring higher than everybody in the class on tests...and my, the Math teacher of the foundations class told me, you know... “You’re a really good Math student. You just have to apply yourself...the funny thing is, when I graduated, I actually ran into her at the job that was working at and she remembered me. She was like “I don’t want to see you here. You don’t belong here,” talking about, you know dead end jobs or whatever and she was trying to get me to go back into college...she teaches at Somewhere State...so that just kind of threw me in gear

to get back into school for real and college and everything and I guess it was kind of because of her that I felt like I could do it. (Emma)

Recalling Ben's story, he had dropped out of high school and enrolled in an alternative education GED program. Here he talks about Mr. F.

I remember Mr. F and he ...telling me that Math was my weakest subject...we were studying...I had all of his attention, just me and him, one on one like so I guess that's the first time in my life where I have somebody teaching me about Math...I believe that a lot of my Mathematical foundation is based on what, Mr. F...Jeff had taught me and I felt like when he taught me, it kind of stuck with me permanently...It's like he helped me understand it...(Ben)

Remember from Ellen's story the horrors she had endured. For Ellen her first mentors were social workers.

...most of them are staff members from like the Runaway Shelter and Group Home...I can say this lady named Mrs. K. for example at...the Runaway Shelter, just by her talking to me and like making my spirits kind of high... just giving me somebody to talk to instead of...me being... just completely in this depressive mood all the time...it just gave me hope that...maybe I could be a normal person, (Ellen)

Sometimes the mentor may simply come along to administer a "kick in the pants." Howard did not enroll in college upon high school graduation. Howard recalls, "one of my friends, he graduated from this University and he basically, he said "You're going."

The concept of one's inner mentor has already been demonstrated in several of the participants' stories as they first heard the call to adventure. The inner urge telling them they needed to go to college. For many of us, we call this our conscience. The internal moral compass

shaped by attitudes, values, and beliefs. Ellen provides us with this recollection of her inner mentor.

...so at this point I came to a decision...I'm...gonna have to make a choice. Either I'm gonna go down this rough road cause I was on a pretty rough road. I was like in an undesirable occupation, hanging around undesirable people...I was at the point to where I hadn't went downhill yet, but as far as getting in trouble, going to jail,...it was gonna happen soon or I was gonna have to do something to change where I was, you know my path...so I decided that nobody's gonna do this for me. I have to do this for myself...

(Ellen)

In all but the final excerpt given in this stage, others were instrumental in pointing the participants towards a positive life trajectory. However, one of the major themes underlying these positive transformations is found in our participants' descriptions of taking ownership of their education and their lives. During upcoming stages their stories reveal transformations in perspective accompanied by a strengthening of their inner mentors. Next we move into stage 5, the border crossing into the alien world of higher education.

Stage 5: The Border Crossing: "I guess I stepped out of my comfort zone"

Campbell (2008) refers to this stage of the hero's journey as "crossing of the first threshold"(p. 64). Here the participants actively answer the call to adventure and cross the border into the special world of higher education. This is a metaphorical border crossing from one culture to another, a culture that is alien to the hero. As has already been revealed through our participants' stories, even though they have heard the call of the magic elixir of a college education, their border crossing is not a full speed ahead charge. Frequently, there is some

external turning point that motivates the hero to action. Carrie describes the motivation for her border crossing.

...but when I did get clean...five months later is when I started college...college kind of served a dual-purpose for me. One, it helped me bridge the gap from poverty to middle-class, to try to maybe get out of poverty a little bit, through the academics and the degree...but it also kept me clean...(Carrie)

Lillian had two previous attempts at college. The story of the first attempt was noted in a previous stage. Her second attempt approximately five years later was interrupted due to “baby number two.” She recalls vividly the experience that resulted in attempt number three.

So here I am, I'm working...umm...and come about 2011, I said to myself, I have two young boys, and I have a family, I have a husband, and I worked at this job...I was sitting in a training room...and the lady went around asked who all had degrees. Everyone had a degree but me...and I'm thinking to myself, all these people in this room have one, even some of them have two degrees. I said, I don't... So at this time I said...you know what, I'm tired, I'm gonna go to school. (Lillian)

Rachel previously described finally being able to confide in a friend about living in a “bad relationship” and having the courage to end the relationship as her external motivation to cross the threshold. Emma remembers moving in with a boyfriend after her high school graduation, which she described with “probably wasn’t a smart idea.” Here she describes events after the relationship ended.

...so at that point...boyfriend and I already over, way over by this time but at that point...I actually moved back in with my mom and then enrolled in school shortly after and that's where I'm...now. (Emma)

For some on the hero's journey internal events trigger the border crossing. The decision is motivated by the belief they have no other options to the extent that their lives are at stake. In Ellen's story at the opening of this chapter, she recalls telling the college staff member that she needed help getting into school because she had "no other options."

During this stage the hero crosses the gateway that separates the ordinary world from the special world. But our participants find their progress slowed by a new series of threshold guardians. Threshold guardians appear in the form of placement tests, completing pre-college or remedial level course work, and again the dreaded math dragon to be tamed. All ten participants were required to take placement tests and nine had to take developmental coursework upon enrollment at Somewhere State. Lillian had been upset when she was required to take developmental mathematics course at the beginning of her first unsuccessful attempt at college. By her second attempt her beliefs regarding the value of taking developmental courses had changed, and she believed she needed them. In talking about her second attempt at college she recalls telling a friend, "I need to start from the bottom, I need to know my basics because I feel deep down inside that I don't know." Six years later she has this to say about the developmental math courses.

So I stopped working, came to Somewhere State.... by this time the modules, the math modules have completely changed. They're still keeping my test scores, and now...my placement test scores..., we have it... a computer...tutorials to get you through each stage.... and I said, I've got to get through this math...and...the lady, my advisor told me, she said it's going to put you a year behind because you're going to have to do math module, your reading module, and your English...I said okay. I'll get through it, (Lillian)

Moses also had to start at the beginning in the developmental mathematics courses.

...they put me in...Developmental course and I was glad that they put me in that because I needed to go all the way down, you know from the bottom and work my way up cause I know I had done forgot everything and...they put me in that math class, (Moses)

Rachel's view of taking the remedial math course was initially different from Lillian and Moses. However, her perspective of the value of the courses changes as she moves through the course.

I needed to have some kind of education so I looked into Somewhere State...I continued to serve through my first semester...to help pay for school...but that first semester is when I got into the developmental studies program. I was really upset...that my ACT scores and my time of being out of school set me into...programs that weren't college level courses. I had to do the Math and the English...I just saw it as a...waste of time...because it wasn't college level and I had to be in college for another whole semester before I can do anything...but once I got in it, into those classes...I had 2 great teachers...George Brown for Math and then Amy...ooh I can't remember her last name...English and they were wonderful teachers and I realized that I needed the class. I had no idea what I was doing... coming back,,5 years later I realized that I didn't remember anything,,once I started...through the middle of it, I realized...this is very, very necessary...getting out of those classes into the next semester into English 1010 and a real college level Algebra class, I guess it really hit me that I had made the right choice...what I needed to do...I wouldn't have ever been able to do well in either of those classes had I not had the Developmental classes beforehand...I would have never passed in English classes if I hadn't had that, that English class...Developmental one. (Rachel)

This story connects to the overarching theme of relationships noted from the participants' shared experience. This story from Rachel is just one of many examples describing authentic

relationships formed with archetypical mentors and allies through the course of their academic journeys. Rachel has found mentors serving as both teachers providing necessary training and guides helping make the perilous border crossing. This border crossing through the developmental coursework is perilous in that academic border crossers face a metaphorical death in the form of developmental course failure. Lillian, Carrie, Rachel, Moses, Ellen, and Ben spoke highly of their developmental education teachers and the overall developmental education experience. Moses talks about his developmental education experience.

...had a wonderful teacher, Mrs. Brown made an excellent teacher...I done pretty good in that class...she made it easy for me. It was, it was a great experience and that helped me, you know to move forward for my next course. (Moses)

Howard's view of his developmental mathematics prerequisite presents a different view.

Um, what hurt me in at Somewhere State was my ACT score. From that, my overall score...I can't remember exactly (tap) what I got...I was put in the...developmental courses at Somewhere State. I think the Modules is what they used to be called... however, I think I tested out of the first 5... (Howard)

Howard believes he would have been successful in his college level algebra class without the developmental math course.

....well my honest opinion was like "I don't really think I needed that," to pass College Algebra...cause I'm like "Alright if you just give me some instructions and show me how to do it," ...it'll click...some stuff we obviously forget over time. We're not gonna remember everything but if they would have just put me in College Algebra... from the jump then I feel I would have still got the same grade...as opposed to taking all the Module course then taking College Algebra cause... it still...would have clicked...as soon

as I started doing it again and doing examples and have an instructor, you know walk through...some of it...I would have been just fine, but I won't say it was like a waste of my time by no means. I mean it's always good to have practice...it didn't bother too much that I started in there...I went through 5 or 6 through 9 I didn't have to retake any of the tests,, I passed all of em so I wasn't too upset about it...I went through it...the only...bad thing is you don't get ...college credit...(Howard)

Howard's story also speaks to an important attitude of cooperation in accepting this is what he had to do. Instead of engaging in pointless conflict, he simply finds something to be gained from the task, extra practice, and just gets it done.

Threshold guardians are sometimes the internal struggles of the hero themselves. Ellen describes the need to move past her inner threshold guardian.

...you know it really wasn't as hard as I made myself...believe...it was. I guess subconsciously discouraging myself from going to school because I didn't want to...step out of the box and come out of my comfort zone so once I... stepped out of my comfort zone and learned about these things...just like regular procedure of you know, getting into college, it was...way easier than I would have thought...(Ellen)

Sometimes threshold guardians need to be out-manuevered. Elijah talks about his approach to the college mathematics placement test.

...one way that I could test out of the um, Developmental Math was,, right before the test...I went onto the ACT website... and I looked at their...practice Math exam and...I studied it. I studied all of it and then when I took the Developmental exam, it was exactly the same so like the ACT practice exam and the um, Placement Test exam for Math is the exactly the same like, the exact same questions that was on there, was the exact same

question...so that's one way I can push out of that. (Elijah)

These border crossings are the turning points. The transformation that began when our heroes heard the call to pursue a college degree has now resulted in action. The overarching or meta-theme of taking ownership is evidenced by this leap of faith. Armed with a strengthened sense of purpose, departure from the world of the common day has been achieved and our heroes' adventures have begun in earnest.

Part 2-Initiation and Transformation

“Once having traversed the threshold, the hero moves in a dream landscape of curiously fluid, ambiguous forms, where he must survive a succession of trials” (Campbell, 2008, p. 81). Even though the heroes of this journey might still live and work in the same places, the culture of higher education is that of a Special World differing in values, priorities, expected behaviors, written and unwritten rules, and language. Many of these cultural differences, rooted in middle class norms, are implicit (McKay & Devlin, 2014; Vogler, 1998). Initiation to the Special World of higher education has proven unforgiving to many. However, Campbell, also provides this more optimistic vision of what is in store for our participants during the border crossing. “Or it may be that he here discovers for the first time that there is a benign power everywhere supporting him in his superhuman passage”(p. 81). The first in a succession of trials for our heroes is their initiation into this strange, new world. They must learn the rules of higher education, and they must learn them quickly. They must learn “the ropes of going to college.”

Stage 6: Tests, Allies, Enemies: “...they had just expected me to know what to do...”

During this stage heroes are tested as they again face internal and external threshold guardians and enemies. They must learn to judge character, who can be trusted, who is reliable, and who is not to be trusted. The first crucial test is to quickly adapt to the norms of the

unfamiliar world of higher education. Our participant's stories reveal the overarching theme of *learning the ropes* of going to college, learning to do school. Participants share their experience of the process of learning to navigate higher education. Carrie shares her story of arrival in higher education.

As a first generation college student, I knew nothing about school. I came in. A lot was expected of me even though...I didn't know what to do and they had just expected me to know what to do and that was big problem. (Carrie)

Dealing with limited financial resources is one of the first tests faced by participants. Rachel remembers figuring out how to "scavenge for scholarships." Carrie remembers learning how to work the financial aid process.

I treated it like a job. ...I got Pell Grant money. I did get student loans when I needed them...I eventually ended up getting Hope Scholarship, as well as, TSAC. Gosh, I was doing pretty good for myself while I was in college financially. My grades were working for me... I was really reaping benefits from that and that was pretty cool to me...it dawned on me "Wow, the harder I work, I the more money they give me." (Carrie).

Ellen describes her initial experience with a college counselor as she struggled with the complexities of advising and course selection.

...I met a lot of people who were willing to, who wanted to see me succeed as much as I wanted to succeed and so by going to these people if I needed help...they were there and they were very motivational...I guess you would say tool that I could use in... succeeding...if I didn't understand something, I would just go to these people... I had an advisor, Mr. Lewis. He wasn't even my advisor but I would just go to his office (laugh)...I used to think "I know these people think...I sound stupid," or "I keep asking them the

same question over and over but I don't care because...I need to get this done." ...I'd be really confused about... "What classes am I supposed to take for this program that I have left?" and I think I've got these done or whatever...I would just...go to his office,...and be like "I hate to ask again but can you tell me, can you pull up on the computer and go over with me like everything that else I need and what I've done so far," ...of course he would...that's just one example. But like professors who would help me...if I took the time to go to their office hours...I found that they would take the time to help me...I feel like the more people know or see that you are trying and that you want to succeed, the more they want to help you succeed. (Ellen)

Ellen talks about where she is in her journey today. "...I know the ropes of going to college now, you know at least a little bit...my comfort zone has expanded so much. Ben talks about learning the routine of college.

So, I guess I kind of like just went into...Somewhere or like 300% and then now...I got used to the routine...I got more confident about it and more used to it the, the college routine. I think I transitioned to going to...my 2nd college pretty good. (Ben).

Emma, who demonstrated her proficiency at circumventing obstacles when she was refused admittance to the local high school, relates the following experience with her choice of her first college mathematics class upon enrollment.

I had the choice of going straight into 1130 or taking the 1030 class cause I guess of where I scored on the placement test and so I actually decided to take the 1030 class just for a refresher cause I had been out of school for so long... (Emma)

This is an important course selection strategy mentioned by non-traditional students as part of navigating higher education. The student begins with a math class that is at the bottom or lower

than their test scores indicate they are eligible to take. They describe a need to rebuild their mathematics foundation. A few of the participants recalled that after originally being upset about having to take a lower developmental mathematics prerequisite course, change their belief as to the value of the experience to their later mathematics and overall academic success. A key component of the developmental course curriculum is helping students understand the process of learning and the existence of individual learning styles. Moses describes this experience.

“...they teach these different ways of learning... They teach how to learn. ...that was new to me. We’re doing like some of kind...little test...that shows where your strongest learning ability is...that was pretty good to me and I appreciated that...so now I know how to learn. Now I know where...my strongest point in learning is...so that was a pretty good class (College Success) for me to take... I think that gave me more confidence in my learning ability...” (Moses)

Another character archetype to consider along the journey is the shadow. Shadow characters are the source of obstacles and may be external or internal. External shadow characters are antagonists, enemies, or villains. A common characteristic of shadow characters is that they do not think of themselves as a villain or enemy because they are convinced they are right. Carrie recalls encountering the shadow when she asked for clarification from a college staffer in the registrar’s office.

...I even called the registrar (office), and I asked her, explain to me how to calculate this. "It would take me too long and you wouldn't understand"...that was the elementary school again... I will never tell a student that. If you are smart enough to be here in the first place, then you are smart enough to figure out how to calculate GPA. Now, knowing what I know...I'm not completely sure she knows how to calculate GPA. Was that why she

didn't want to teach me? Was it her own self-efficacy that she was questioning, you know, or was it, was it my intelligence? (Carrie)

The next character archetype to introduce is the ally. Allies provide advice, comfort, academic, and moral support. Sometimes they provide motivating challenges to the hero. Within the overarching theme of learning the ropes of higher education, the participant is learning how to access, and if necessary, create support structures. Members of the tutoring staff are the primary allies of our participants. Moses talks about accessing tutoring help.

“Oh, ok I’m going to the tutor with that and I’ll get that explained to me,” ...and that can be 5 or 10 minutes of... personal interaction that I can get help to understand it so it helps a lot man...I’ll tell you what, I’m thankful for the tutors, very thankful for the tutor. I mean anybody that’s a tutor I mean I you know I’m very thankful for what they do because it’s a big help especially in Math, especially in Math and that’s what helping me get through it. That’s what helping me get through you know every Math class that I’ve been in... “So, you know the tutor, the instructor, the notes, I mean just collective effort to learn this stuff man is how I’m getting through it you know from every avenue that I can get some help” (Moses)

Peers also play a role in the support structures accessed by students. Moses explains,

...I’ll go even myself...with other students...we had a quiz last week...I might get the question wrong that he got right and it’s like “Well, how’d you do that?” you know “How’d you understand it?” ...cause we might understand things differently, so if you got it right and I got it wrong, “Tell me how did you understand it so that maybe I can understand it a little better...from your perspective,” because even though you might get it explained to you from the instructor, you still might not catch it, but if you

have...another student like “Well, this is how I understood it,” ...and they tell you and it might make a little more sense to you sometimes... so that helps too. Man, I mean (laugh) I’m fishing for all avenues I can use some help from. (Moses)

Ben recalls doing mathematics with peers from his grocery store job.

I work at a (grocery store) so...one day I was just playing around and I just wrote...an equation on a piece of paper and...gave it to my manager. His name was John and he solved it and he would make Math problems...for me when I was at work and I would make...some... for him at work...and I remember it was another girl that worked with me. She was also going to school. She was majoring in Math too. She wanted to be a Math teacher. So, as I’m going to Pre-Calc, our Pre-Calculus/Algebra, she’s going through the same class too so, we was on the same level and I would make her a Math problem and she would make me a Math problem and this is when I’m taking Math with me to work and it was kind of cool like “Hey wait a minute,” a lot of people is, is Mathematically inclined and they really enjoy doing Math... (Ben)

Lillian recalls a time when peers did not play such a positive role.

...we had a ...SI instructor (supplemental instructor), who was teaching us in A & P (Anatomy and Physiology) this past semester, and her and her friend...they came straight out of high school, so they're about 18...I'm there because I take out 30 minutes to...get this tutoring before going to class. We're sitting at a table...they're over there...lollygagging, making comments, having a good little ol' time, and they're not focused...so I let them know....I said, Hey look, I've taken time out of my day to come here for this thirty minutes, if you don't want to learn, that's okay with me, but I want to learn, you're distracting me from learning. I need you all to either pay attention....or either

move somewhere else so I can get the information that I need...one girl was upset about it...and she's like..."Well, I just like to have a good time." I said, it's fine to have a good time, I want you to have a good time, but when you're at work, you're at work, when you're at school, you're at school...you have to focus on one thing at a time. I said, If I'm at work and I'm doing a job, I can't sit there and lollygag around...because that's not what they are paying me for...The same goes for this degree. I cannot have you distract me from getting the information I need. Now, I would like for you to come and join me, but if you don't want to, that's fine, but I'm here for my 30 minutes, and you have to respect that...that I get that 30 minutes...and from that point on we have an understanding...they knew (laughing) that when they came in and they saw me.....Oh, we can't lollygag around, or we'll miss out on this session. (Lillian)

In the stories of Lillian, Rachel, Moses, Ellen, and Elijah, they express frustration with disengaged peers. They want to help them see there is a better way. This has been another overarching theme in the study. Our heroes want to share what they have. They want to *pay it forward*. This theme will be examined in more depth in upcoming stages.

Descriptions of teachers in these stories cover the full range of character archetypes. Carrie describes her relationship with a mathematics teacher who became a mentor.

And then, so the second semester, of course, I took the 0800 and, again, not quite as well as I did in 0700,...not crazy about the...graphing and stuff, but I still managed to come out with an A...I had, Amber Crockett for that class, an amazing lady...I will have to say she is the best math teacher I've ever had...for me personally, she taught in steps, and that made sense, you know, and when I asked her why, she told me why. (Carrie)

Rachel describes the enthusiasm demonstrated by a teacher she saw as an ally in her study of

Calculus.

...but he's got like all this energy and spunk and he would like jump around the classroom and learning is fun and that was fun and like literally doing cartwheels in his classroom... for some reason...I mean...he was very intelligent but that energy, relayed somehow...it made it fun to learn it and fun to figure it out...but ...he would also be able to explain things...he would give incentive for understanding...with the enthusiasm I guess and the energy and "Yea, you got it right!" and just so excited. (Rachel)

Sometimes teachers would assume the role of a threshold guardian. Carrie tells a story of a statistics teacher who ended up as a source of motivation because a comment he made on the first day of class elicited a determined, *I'll show him response.*

I took, um, inferential statistics. From a gentleman that started the very first class with "In my experience women are not good at math". I, I'll go ahead and tell you he was about 960 years old, uh, (laughing) and he was very good at math... and I had a great time proving that man wrong by having the highest grade in the classroom that semester. Out of all the males, I had the highest grade. It was a lot harder, obviously than, than elementary probability and statistics, but I loved the challenge. (Carrie)

More participant recollection regarding teachers will be provided in upcoming stages. Perhaps the biggest obstacle for the participants was juggling family, academic, employment, and life responsibilities. For so many LSES students these responsibilities become overwhelming to the point that they are unable to continue. Our heroes frequently used the words adapt and overcome in describing the successful management of these responsibilities. Much of being able to adapt and overcome is internal as we will see in the next stage. However, sometimes these responsibilities required enlisting the aid of allies in the form of family members, friends, or

neighbors. Carrie talked about how she was able to adapt with the help of her family.

Um, but I did struggle with giving my family time and so I came up with a plan because my husband worked nights so I had the boys in the evenings all through the week. I was basically a single parent through the week...emotionally not financially but emotionally. ...then on the weekends, here's what I did. Saturday belonged my family. Saturday belonged to Joe and the kids but Sunday, he was to get those kids and get out of the house. (Carrie),

Our heroes have *learned the ropes of the new world* of the world of higher education. As they prepare to approach to the ordeal of the labyrinth, they reflect on internal changes with the realization of preparations to be made.

Stage 7: Approaching the Labyrinth: “your give a damn is broken”

“A new perception of yourself is forming. Based on this new awareness you can make plans and direct yourself towards getting what you want from the special world” (Vogler, 1998, p. 143). The approach is compared by Vogler to a student studying for the midterm. The transformation that began with the call to adventure continues with the development of new positive perspectives. In this context the approach is the ordeal of completing the requirements necessary to seize the magic elixir, the college degree. The heroes are able to look ahead to that moment of accomplishment at the graduation ceremony. Howard describes his anticipation of that triumphant moment in this excerpt.

I'm...40 credit hours short so I have...about 3 semesters give or take. Maybe, I'll go to summer school. So, I'm almost done... I mean the day I walk across that stage, I'm just gonna light up...I'm a be like so happy...it's gonna be awesome to see...some of my friends there, see my family there...I just can't wait for it to happen...I hope everyone,

especially our youth...realize how important education is...hopefully they get to... feel the same experience that I do... (Howard)

Howard's story reflects an increased confidence that is common across our participants' stories. We have already heard from Moses as to how his lack of confidence, especially in mathematics, played a key role in his K-12 difficulties. Here he describes sources of his growing confidence as he moves through his college coursework, confidence tempered by the understanding that each section is a new obstacle.

I mean that's an ongoing process because you have to have confidence in every section, you know because every section is different and, and the previous section is really kind of the foundation for the next section...you gotta have confidence from the beginning or you have to gain confidence...that's where your help comes in at. That's where your faith comes in... That's where your studies come in...any...avenue for me right now. You know I try to study as much as I can and try to get as much tutoring as I can you know and I pray...so that's where my confidence comes in... (Moses)

Moses frequently talks about his Christian faith as one of the foundations of increased confidence. This will be visited again in Stage Eight, The Ordeal. Carrie discusses the confidence gained from a changed learning disposition when she discovered she could do math. “...math served a pretty big purpose in showing me that I could do something that I previously thought I couldn't do at all, that not only could I do it, I could do it very well.”

With this confidence our heroes develop a certain boldness rooted in the maturity gained through both life and academic experiences. James provides a then and now contrast in this excerpt.

So....and...there's something my mom pointed out that, when you're younger, particularly

when you're taking like freshman and sophomore classes, as a traditional student, you don't want to say a whole lot...as an older student...at that point your give a damn is broken (laughing)...coming in as a nontraditional student you know exactly what you're there for, at least in my case... you have an idea what you want to get out of class, and, it's not going to bother you to point something out, or ask a question, or anything like that, cause, you just don't have that fear or worry about what anybody else in the room is going to say, you just don't care, cause I know what I want out of it, so, I'm going to ask the questions and make the points I need...to get what I need to get out of it. So, I mean, you just, you don't worry about all the other stuff anymore. (James)

Joseph Campbell cites this inner transformation as part of a hero's symbolic death and rebirth. "One by one the resistances are broken. He must put aside his pride, his virtue, beauty and life and bow or submit to the absolutely intolerable" (p. 89). We find this expressed in this excerpt from Moses.

"...so I let my pride go man. When I came back to school, I let my pride go. I'm like "Man, if I don't understand, I'm raising my hand. I'm asking questions. I need it explained to me," you know "clearly," (Moses)

Moses and James recollections are consistent with the theme of internal perspective transformation that results in our heroes taking ownership of their educational journeys. Lillian's story reflects the theme of taking ownership through a change in her perspective contrasted against her previous unsuccessful efforts. "So, I think this go-round, in 2011, it was more that I had a drive. I had to make sure that I had an open line of communication and that I communicated."

The resilience of our participants was communicated through frequent use of words, like overcome, cope, and adapt. Reframing their academic progress in light of their personal histories reveals a different definition of success.

So, I could have graduated with honors, I feel to this day I could've graduated with honors, been in the honors' classes, been an exceptional student... if I had that support, that family support.... I feel that, for my situation, and what I went through, I did a pretty good job...my determination really comes from....within... (Lillian).

Vogler (1998) discusses the role of past experience at this stage of the journey. "Past experience on the journey may be the hero's passport to new lands. Nothing is wasted and every challenge of the path strengthens and informs the present" (p. 146). Participants frame the difficult past experiences of their ordinary worlds as a motivating and strengthening experience, suggesting they would not be where they are today without those challenges. Ellen shares this perception of her experience.

I knew that I could apply myself and if I applied myself, I could do anything and I already had the mindset of like, I had developed over a course of being abused and going through state's custody and all this stuff, I had developed these certain mindsets like I felt like I could get through anything and adapt to any situation... (Ellen)

Carrie picks up on this theme in this excerpt.

I think about that, about the things I did....about who I was, and I hate myself so much for it, still, and I mean it's been nine years, nine years in just a couple of weeks actually. But at the same time, I wouldn't be who I am today without it.....and, I mean that's, that's just a fact. I don't know that I would have come into school. I don't know that I would have worked as hard as I did to succeed. I needed that, I really needed that.

Elijah echoes this theme. “I’ve been through a, been through a whole lot in short amount of time...I think it’s a good thing that it happened. You know it’s made me a lot stronger”.

Continuing with this same theme we pick up Howard’s story.

We’ve overcome some extreme obstacles to get where we are but I mean it’s made us stronger and it’s, it’s definitely...giving me a better outlook of life cause I see things differently now...I honestly...see some students here(university)...I mean just to be honest...they just take things for granted. (Howard)

This excerpt also speaks to the theme, *I am different*. Nearly every participants has expressed this as a feature of their identity. Carrie expresses this difference from her experience of going hungry. “I hate to say it. There's not many people in our society today that know hunger”. Ellen articulates her perception of the difference.

I feel like I’m hip to anything could come my way. I feel like nothing could blindside me or you know just stuff that I’ve been through, what I grew up around...it...really does shock me and amazes me of people who are the same age as me or even older than me...throughout my life experience...for example when I was 18 and somebody else who was 18...how differently our...level, our mind would be...as far as, street smarts goes.

Evidence of the resilience of our participants is provided in experiences of setbacks along the way. In this narrative setbacks take the form of failed classes that need to be retaken. Ellen also recalls failing mathematics classes and slowed progress towards her two-year college degree.

...and I did have some slipups and some, I failed some Math classes and but I didn’t give up...I just kept going back and hitting the grindstone, and hitting the grindstone...it took me like almost 6 years to get associate’s degree going part-time but I never gave up...I just I knew that I had no choice. I couldn’t give up because...I felt like if I gave up, that I

was dead, I was already dead or you know my life had already ended because I had no other source of having a better future for myself or my future children or you know anything like that. (Ellen)

Ellen's determination and perseverance are character traits shared by all the participants. Their transformation to success is a story of persistence in the overcoming of life and academic obstacles. The honing of this attitude takes on special significance as they travel through the Special World of the college experience. Campbell provides the story from Greek mythology of the hero's journey of Theseus and his quest to kill the dreaded Minotaur. For Theseus to complete his quest he had to slay the beast and then find his way back out of the diabolical labyrinth. A mentor appears in the form of Ariadne, daughter of the king. Ariadne, after consulting with the inventor of the labyrinth, Daedalus, gifts Theseus a ball of golden thread. Theseus unrolled the ball of thread as he traveled into the depths of the labyrinth, slays the Minotaur, then follows the trail of the golden thread out of the labyrinth to safety. Over the millennia multiple interpretations of the symbolism of Ariadne's Thread have been offered. The relevant interpretation for this study is as the symbol of the strength of positive, loving connections allowing one to pass safely through their personal labyrinths (Miller, 1995; Vogler, 1998). Relationships forged with peers, faculty members, tutors, staff members, administrators, and the institution itself serve as the invisible threads our heroes use to navigate the labyrinth of the college experience. Through relationships our heroes are earning respect as each obstacle is overcome along the way. Evidence of this growing respect is seen through the accumulation of mentors and allies. When delayed by obstacles, the bonds our participants establish with the threshold guardians of the college experience, faculty, staff and administrators, change into a growing network of mentors and allies. Rachel describes this.

I loved Somewhere State. I got very involved in activities...because they were available to me...my teachers would mention things and you know in class... this is going on and this is going on...getting involved I made friends...we had a Dr. White's Biology Class which everyone is afraid of Dr. White...I loved Dr. White (laugh)...I love the scary teachers... there was a group of us that would always get together and study for it and we would be in this room actually several days a week studying for his class...well that would spill out into other classes...make friends. ... I loved my (community college) experience.

Emma shares a similar view of her positive connection to the institution.

...as a whole though...my experience at (community college) has been really great especially at the small city campus. I love the small city campus. I actually live closer to the outlying campus but I come here because this is the first campus I came to in my first semester...just everybody here is so friendly...it's an inviting environment here. I guess you could say. It's very welcoming. Nobody in here is kind of like "Oh well," you know "I'm just here to teach to you. That's it," like everybody...you know they care about you and actually what you're doing...if you're gonna succeed or not. You know they're not out here to try to get at you or get one over on you. You know they're actually here to help you...that's one thing I love about this campus and Somewhere is everybody, even when I've had stuff at the big suburban campus, everybody that I've talked to over there, they've been pretty great too, so I mean...Somewhere as a whole for me, has been really good...overall, I really like it here. (Emma)

Lillian paints a similar picture of the community college, finding multiple sources of academic support, sometimes in what would seem like unlikely places.

Somewhere State was small...you know...concrete...people were helpful, even the lady,

the cashier lady, Hazel Wood, was educated....it seemed like everyone in the office had a degree, and they were even able to help me, when the tutors were not available, when my teacher wasn't available, they were able to sit there and look, look over my paper and say, that was spelled wrong or this needs to be corrected, or...you know...umm...24 divided into 64,0000, no that's not right...you know. So with them having an education as well, I felt helped me a lot, too... (Lillian)

Ellen also shares this point of view regarding her two year college experience.

I had a really good experience at Somewhere like I found that...it wasn't what I expected...I expected it to be a lot more like "you're on your own," ...and it wasn't really like that...if you do the work and you ask for help and you seek out tutoring or whatever you might need, it's all there, you know there are people there that want to see you succeed...Somewhere offered...to help you...to achieve it still on your own but just assisting you to be able to do that, So, I really like that about Somewhere. (Ellen)

Each mentor or ally provides another symbolic golden ball of thread as the essential lifelines our heroes accumulate as they head into the labyrinth. Our heroes have overcome a series of obstacles, have tested and refined their new perspectives. They are ready to face the ordeal.

Stage 8: The Ordeal inside the Labyrinth: "I just have to put school first"

The ordeal of completing the requirements for a college degree is a cycle of transformation and maturation. In this respect the hero's journey is consistent with the rite of passage rituals and traditions throughout all cultures. As part of the college experience students enter the Special World through a matriculation or orientation ceremony and they leave with the pomp and circumstance of the commencement ceremony (Akli & Adjimah, 2014; Manning,

2000). Rites of passage can be viewed as three phases, an initial phase of separation, an intermediate stage of transition, and a final stage of incorporation. Passage through these phases is a symbolic death and rebirth (Akli & Adjimah, 2014; Campbell, 2008; Vogler, 1998).

Campbell describes this death and rebirth.

Everywhere, no matter what the sphere of interest (whether religious, political, or personal), the really creative acts are represented as those deriving from some sort of dying to the world; and what happens in the interval of the hero's nonentity, so that he comes back as one reborn, made great and filled with creative power, mankind is also unanimous in declaring. We shall have only to follow, therefore, a multitude of heroic figures through the classic stages of the universal adventure in order to see again what has always been revealed. ...the singleness of the human spirit in its aspirations, powers, vicissitudes, and wisdom. (p. 28)

The symbolic death that generates the greatest fear is the academic death that is evidenced in the form of failed classes. Failed classes lead to loss of financial aid and loss of the opportunity to continue as a college student. Rachel talks about her failed Calculus 1 class.

That was a little heart wrenching and by a little, I mean a lot (laugh)...I'd never failed a class before...I'd never gotten close to failing a class before that....my first C was when I got into (university)... It was a game changer I guess for me...I thought that I could squeeze something...it was a summer course. Just squeeze it in and get it over with and I couldn't. I couldn't get it. I couldn't do at all...it was a game changer because it changed the way I thought about the rest of my classes like I couldn't do short term things and I... learned...that if I got into a class for the first few days with a teacher that I didn't connect with or understand that I know now that I need to figure something else out

cause it's not gonna work for me...it was very disheartening... (laugh)...but then I did it again over a full term with a different teacher and I got through and I made an A that time (laughing). (Rachel)

There are two themes represented in the excerpt. Rachel overcomes failure when she retakes the class and makes an A. She also describes the ongoing process of learning the ropes of college. As a survival method students may choose to make a strategic withdrawal from a class due to what they see as the posing of impossible tests or finding they cannot relate to a particular teacher.

The inner struggles continue in this stage as participants continue to confront the negative side of their personalities. This inner struggle is described by Vogler (1998).

The smoldering combat that ignites in the Ordeal may be an inner struggle between an old, well-defined personality structure and a new one that is weak, unformed, but eager to be born. But the new Self can't be born until the old one dies or at least steps aside to leave more room on the center stage. (p. 171)

In this excerpt Ellen describes this inner turmoil and contrasts her approach to that of some of her peers.

A lot of people I see like complain and like bitch about "Oh, this class. I hate this class. I hate this professor," especially when I was at Somewhere State... "This is bullshit. I can't pass this. They don't care," you know "This homework's ridiculous," like "These modules are ridiculous," and "How do they expect people to do this?" but you have this group of all these people and they never pass. They never succeed. They never get past it and then you have this group of people who feel, in my opinion, the exact same way. You know I felt the exact same way as these people...and there's not one thing...that I did not

feel the same way. The only difference is, like I viewed it as a temporary situation that I could adapt myself to get through. You know I could struggle and basically suffer through this temporary situation because and I had an end goal... (Ellen)

The theme of having a purpose as being essential to overcoming obstacles has been shared by all of the participants. We see another crucial mindset in this story of Ellen's of changing perspectives. She addresses another reality of completing a course of study. Unpleasant or pointless tasks, real or perceived, are integrated as threshold guardians into the ordeal of earning a college degree. Learning to complete tasks one views as ridiculous is essential to academic success and an important life skill. Howard's earlier story demonstrated this same quality when confronted with the threshold guardian of the developmental mathematics course he believed he really did not need. There is another characteristic of the Ordeal presented in Ellen's excerpt. She witnesses the academic death of others along the way. Ben describes an application of his recently acquired familiarity with statistics in an observation of academic death in the form of disappearing classmates.

I will tell you one statistics...project in my class...I ended up finding out that either 40 or 60 percent of the students was gonna end up dropping out by the end, by the end of the semester. Like I remember one day, the teacher had called 40 names and it was only 35 seats in the classroom and I was like... "That don't make sense," but I, I know why. It, it was cause more people have signed up for the class and a lot of them wasn't gonna actually show up on the first day of class... I counted how many people was here on the first day of school and I kept on counting every day and...the numbers drop. I did a graph on like the attendance of my class...the numbers would jump up a little bit and then, then all of sudden a lot of them would drop out and then it, they would jump up and then it

was like, only like 40 or 60 percent... was in the seats during the last day of the semester...I was like "Wow," ...of all the people in this classroom, only half of us...pass... (Ben)

Whether one did or did not fail a class, participants talked about their fear of failure. Emma describes dealing with this fear shortly after her college enrollment. "It was kind of... nerve wracking at first. I didn't really know what to expect and I was really scared of failure..." Moses reveals that his concern about not failing as the motivation for his daily visits to math tutoring.

...I want to make sure that, that I make the good grade. You know I want to make sure that I'm not failing... it's not a good feeling to fail...so...throughout...each semester I make sure that I know who the tutors are...go...everyday...I'm in here, I got Math class Monday through Thursday and man, I'm here every day...(Moses)

All of the participants describe the burden of juggling the multiple responsibilities of work and family in addition to the academic demands. Ellen put this in perspective with her story.

I had no choice but to start to drop my hours down to part-time and start seeking...other aspects of my life at the same time like...employment...most jobs that I would find...you had to work so many hours...at least 35 hours or...they need somebody to work at least 25 hours...I didn't have a choice...I had nothing else to fall back on so once I got to that situation, if I would have had to go to school fulltime and I didn't have a choice of going part-time, at that point, I probably would have dropped out of school because I wouldn't have seen another option...But, once I realized that school was more important than any of this basically like bullshit that was going on in my life, I would literally sleep under a bridge if I had to. If that's what I had to do to continue with school and just to get it over

with and graduate...I literally would put anything else on the backburner to school...I still do the same thing today...because I realize that...the time's gonna go by anyway and no matter what I do,...if I don't continue to better myself and educationally-wise, I have no options...it's not gonna get any better from here...if I don't finish school and my only option, you know now is to work at McDonald's... "What?" how are my options ever gonna get better than that...so I know that that's the only choice I have...I don't really have a choice. I just have to put school first. (Ellen)

In an earlier excerpt Ellen revealed that it took her 6 years to complete her two-year college degree. In this excerpt she reveals that had the option to attend part-time not been available to her she would not have been able to finish. In the next excerpt we again hear from Ellen regarding a change in her life priorities.

I had to...adjust my school situation around my life situation...I came to realize that no matter what my life situation is, it's always temporary and the only thing that would be permanent for me would be if I get...a degree and further my education in life...that should be my main priority, my main focus. So, eventually I went from feeling like "Well, I have to do this stuff," you know school's on the backburner. I mean I'm going, I'm trying but you know that's 2nd to me to feeling like no matter what, school comes first...I have to quit my job or get a new job or whatever the case may be, I have to make sure that I'm passing my classes and school comes first because no matter what in the end result, that's the only thing that's gonna matter. (Ellen)

There are two common themes, located within the meta-theme of taking ownership, addressed by Ellen. First, nearly all of the participants express the need to adapt, to adjust, and to be flexible as essential to success. Second, Ellen acknowledges her changed life priorities when she moved

school off of the “backburner.” Each participant finds a way to overcome. Moses describes his approach to overcoming.

“...so I mean it’s about studying. It’s about getting tutored...asking questions. ...I’m overcoming...I’m overcoming...one day at a time you know, one week at a time, one semester at a time. You know so I get help and I get help you know and I ask God “Help me to understand this stuff,” you know” (Moses)

In an earlier excerpt from Moses he described the role of faith in helping him on his hero’s journey. Elijah also shares the role of his faith as a source of support and his determination.

I just have a strong belief...because when nobody was there...I feel like God was there...sometimes you just have to go by faith...that’s the reason...I’ve got to where I am today in life...it’s not by me, but there’s no way that I could like do all of this stuff that I do...there’s no way...I’m not perfect...sometimes, I’ll be about to break down...sometimes...I get mad at myself or get mad at...the way things are going...sometimes I might even question God...but eventually...I get over it...and I move on...I’m not perfect...I struggle through challenges but one thing I do...is I keep trying...I don’t stop trying and that’s why I...don’t even know regrets because...I try. (Elijah)

Our participants find sources of internal and external support as they cheat their academic death. Vogler presents this interpretation of this stage of the hero’s journey. “The mythic heroes face certain death but survive where others have failed because they have wisely sought supernatural aid in the earlier stages. They cheat death usually with the aid of the mentors’ gifts” (p. 165). The invisible connection symbolized by Ariadne’s thread is the gift that leads into and safely out of the higher education labyrinth. This symbolic thread is not only a source of academic learning

but also sources of inspiration. Howard compares his experience at the two-year college to his later university experience.

Um, I believe it was '09, I want to say was my first semester at Somewhere State. I think so. I think it was 2009 and I mean I liked it from the get go. Small classes, um so you don't have to be in a classroom like here. This is definitely a new experience. Some of my classes, there's like 700 students or so, so (Howard)

Rachel describes her university experience in contrast to her two-year college experience. This story pertains to one of her university professors who also happened to be her academic advisor.

He was just...distant. I guess...even as my academic advisor, I don't feel like he did a wonderful job with that but that's personal. I guess a different thing too, you know, I've talked with (Somewhere State mentor) about it...at the university where it's a research school. The professors are so focused on their research...what they're doing...the things that they're doing in the world...they're making such a big difference...sometimes the students...they're just numbers... you don't get the personal experiences that you would in other places... (at Somewhere State) I knew all my teachers on a first name basis and I could go to them with any kind of problem...but...he was not like that...you are kind of number at the university. That just happens.

Rachel describes how she maintained her connections at the two-year college and the important support role that played as a student at the university.

...I found when I needed help in classes in my, for my university classes, I was coming back (to Somewhere State) and finding people here that would help me...they were a thousand times more willing to do so...after that first semester...I tried to branch out and I tried to enjoy it (University). Didn't. ...after that...ok. It's something I got to do. You

know I'm not gonna enjoy it here like I did at Somewhere. I'm not gonna thrive, which I did not I didn't, my GPA dropped tremendously at the university...it was just one of those things...I just put my head down and ran through it as fast as I could....coming back...and getting help from teachers and tutors (at Somewhere State), if I hadn't...had that, I don't know that it would have, that I wouldn't have graduated as soon as I did. I wouldn't have had the GPA that I do and I'd probably still be working on it right now trying to get out...I did still have somewhat of a support program here but not out there.

(Rachel)

Another overarching theme present in nearly all of the participants' stories is a strong sense of obligation to helping others or to pay it forward. Vogler (1998) describes this as a "movement from self to group as a hero accepts more responsibility than just looking out for herself. A hero risks individual life for the sake of the larger collective life and wins the right to be called *hero*" (p. 172). Howard describes acting on his compulsion to help a struggling classmate.

...I know the teacher couldn't sit down with him every single day...she has to do for different students as well...that's how I met Ellen actually. I met Ellen and him the same semester and we both...helped him out when we could...I tried to sit down with him, try to show, you know step by step "Ok, do you understand this?," and I would help him walk through that and he'll be like "Yeah," ...then I would try to go on to the next step... I felt...obligated to help him. Someone...that's not very different from myself, I would say and so I helped him...with what I could, if not...I would ask the instructor and he would ask the instructor and...we would help him out that way. (Howard)

The theme of paying it forward combines with the theme of connections in that five of the participants moved in to helping or guiding roles either as officers in student organizations, as

volunteers, or as student workers. Rachel describes her experience as a math tutor.

Math can be the same way too when I'm tutoring and helping a student and I'm showing ...the steps, ...you have to do this and you have to do this and you have to do this and they're "Oh, why couldn't someone tell me you had to all these steps." I'm like "they just sent you from here to here. No, there's like 6 things in middle. You got to do these things," and then when it clicks to them, that's one of the best moments in the world (laugh) that they get it. (Rachel)

Emma describes her work as a supplemental instructor.

I actually really like it (being a supplemental instructor). it's kind of rewarding in a way to help other students in something like Math because Math is one of those things, it's hard to understand for some people and to know that I can be in the classroom and actually people understand things so they can...either make better scores on tests or actually you know whatever, it just it feels good to me to know that I'm helping them try to understand and actually even kind of reach their goals cause if they have to have this Math class to graduate or whatever...I'm helping them with that, it's a rewarding experience. I really like it. I like it a lot. (Emma)

As the participants emerge from the labyrinth they have been metaphorically reborn. They have emerged transformed with a broader view of the world and a deeper understanding of the interconnectedness of things. Old boundaries have been removed (Vogler, 1998). It is time to lay claim to the Reward.

Stage 9: The Reward Claiming the Elixir: “no one can take this away from me”

The heroes have survived their ordeals, slain their internal and external dragons, conquered paralyzing fears, and overcome multiple obstacles. They have passed multiple tests as evidence of their worthiness. They are now eligible to claim their reward. Campbell refers to the reward as the Ultimate Boon. In myth the Reward is symbolized in different ways. It may be a magical sword, a magic elixir, or special knowledge and experience that leads to greater understanding. The ultimate boon is much more than an object signified by their college diploma, it is also the increased knowledge accumulated along the journey accompanied by their positive inner transformation. The outward symbol of achievement for the heroes of these journeys is the college diploma, signifying they have earned their degree. The college degrees is the magical sword that is a passport to cross new boundaries, to embark on new quests, to enter into new Special Worlds. The commencement ceremony, with all its ritual and symbolism, is a moment of triumph for the participants. However, the true all-healing magic elixir is found in their increased knowledge and powerful perspective transformations. Lillian describes this as something “nobody can take that away from me.” In an earlier excerpt Howard described his anticipation of the “walk across that stage.” Ellen describes the emotions and impact of earning her associates degree.

Now, I feel like (tap) whew. It's such a relief (laugh) off my shoulders because I... have that under my belt... and now I feel like there's just no stopping...nobody can get in my way. I've got my associate degree now. Here I am at the university... I feel so proud like so proud...I feel so proud when somebody asks me “Where do you go to school?” and I say “The University” ...people are like “Wow,...that's really great,...” ...I don't even realize how other people view you...until you talk to somebody and they're like “That's

so great...I didn't even know that Ellen," or like "Congratulations, Ellen. You work so hard," ... you know everybody who knows me, ...they know like "Ellen's been in school forever," ...they're all like "Congratulations," ... and it does really make me feel good, you know inside...now I'm on the path to...what I think I want to do with the rest of my life and I feel like even if I change my mind, it doesn't matter...I still got this...greatness that I've achieved, as far as, a Bachelor's degree, come back and get a Master's degree. I feel like...I've tossed the stone downhill and it's just getting easier from here...there's no rolling it backwards and like trucking up the hill because like I've gotten past that part. I feel like I've, I feel like the worst...I've gotten past it, you know and so now that I'm at the University, I mean actually...the classes are easier than Somewhere in my opinion...like my Sociology class for example or my Political Science class...as long as I ...still do the same things I did at Somewhere,, go to class, take notes and pay attention, to me they're easier than the classes I took at Somewhere because there's not a paper due every 3 days in these class. You just study, pay attention and take a test...I really like that about the university... just the fact that it is...kind of prestigious...I can just like present myself and feel good about myself that I made it to the university...I'm gonna graduate from the university...and out of the people I know...I'm the only person...I don't really know a lot of people who actually went to the university and graduated...I don't really know a lot of people who graduated from anywhere including maybe high school (Ellen)

Vogler (1998) suggests that as a result of surviving death, others see the changes the heroes have undergone. Others see the heroes as more mature, more self-confident, and worthy of respect. This is echoed in Ellen's experience described in this excerpt

This is the end of Part 2. This is the point in the journey where participants cross the threshold into the real world, with new identities, ready to put the treasures obtained in the Special World to work. The real treasure from the journey is not the scrap of paper that signifies the degree attained, but the lasting inner change, knowledge and learning disposition. The heroes have learned how to learn and to appreciate learning. This is the magic elixir they will have for the rest of their days. This is the magic elixir that no one can take away from them.

Part 3-The Return

In the Return the heroes are presented with three choices. Either they begin their journey back to the Ordinary World they left, or they find a way to stay in the Special World they have mastered, or they continue to a totally new world. After the commencement ceremony preparations are made to cross another threshold, the threshold to what common vernacular refers to as the Real World. Joseph Campbell (2004) describes the dilemma of The Return.

“The whole idea is that you’ve got to bring out again that which you went to recover, the unrealized, unutilized potential in yourself. The whole point of this journey is the reintroduction of this potential into the world...It goes without saying, this is very difficult. Bringing the boon back can be even more difficult than going down into your own depths in the first place. “ (p. 119)

No matter which of the three choices is selected, the next stage is The Road Back across another symbolic threshold for their rebirth into the Real World.

Stage 10: The Road Back: “there’s a good reason why I came back to work here”

The road back is a psychological turning point for the participants. The heroes must recommit to the journey back to the Ordinary World and put into action the lessons gained in the Special World of higher education. At the time the interviews were conducted, only two of the

ten participants, Carrie and Rachel, had earned bachelor's degrees. Although both moved to different four year institutions in pursuit of Bachelors' degrees, they maintained and leveraged their relationships with the two-year college as sources of academic, financial and social support. We have already heard Rachel's story of her finding academic support for her pursuit. Upon the completion of their respective degrees, the path back across the symbolic threshold of the Real World was motivated by two strong desires, the desire to stay connected to the two-year college and the desire to share the magic elixir of education with others. Carrie had continued working in part-time administrative jobs for the community college while completing her four year degree. Carrie talks about completing her bachelor's degree.

I was Secretary 3 and I loved it...17 hours after I got my bachelor's degree from Smaller Ville College, my current boss called me and offered me job on contract... fulltime...that means so much to me. I've have a real career...I have work. I don't call it a job. McDonald's is a job and this my work...I have work that I can retire from someday and I'll have a retirement fund that I can live on...I have benefits now...I mean wow but I'm not done. It's still not enough for me...I want more...I just had my...evaluation the other day and...my boss... "So, when you starting your Master's program?" that was her way of saying "Get your butt back in school. You're not done," and I'm not...I have a desire to teach...I do love what I do right now, though. I love working with students especially nursing students...They exhibit that same desire and that same drive that I had, have. I can't say I had. It's not gone. It's still there. It just comes out in different ways now...I see that in nursing students more than I do any other. It doesn't mean that no other major shows that. That's not what I mean. It's just I see that more in nursing students especially nontraditional nursing students...I like that. It makes me feel good. It makes me feel like

I'm giving them something. I had a few people Mary Hooper...what an amazing woman and such a mentor for me when I was here. Tanya Brown, wow what an amazing woman and such a mentor for me while I was here. Amy Burn, Christy Moore, I can keep going. These people, these people taught me...so much more than Math or Science or Psychology or anything else. They taught me how to...I think they just taught me to respect myself. I think that's real simple actually. I was trying to make it more complicated than it is and it's not. They just taught me to respect myself or maybe they showed me that part of myself that deserved to be respected...I don't know what'd I do without em...I feel like I owe em everything...there's a good reason why I came back to work here. (Carrie)

Rachel and James both continued working as tutors for the two-year college after completing associate degrees. Rachel completed her Bachelor's degree and has continued working as a tutor at the same campus where she started. She talks about her tutoring job in this excerpt.

...I'm a tutor in the Learning Support and those classes, well like I said when I came into it, I saw it as a waste of time. "I'm not getting in my college courses, I'm gonna be in college longer because I have to take these courses and great, they don't even count towards my GPA," and they helped me so much um, so much and not even just definitely academically but also socially just getting into the college mind-frame and getting into study habits and getting into learning how to deal with myself and manage my time and there was, there was a lot in those classes that were very meaningful and that definitely...set the stage for what was to come...what kind of student I would be after that and I think they're, they're very important and the students that are in now...they're in it because they need to be and I know that now...when I was upset that I had to...I was like

“I know Math and I know I can do this,” but I didn’t...and I didn’t realize that until I went through the program and I see that with a lot of the students that I tutor now that they’re all upset at the beginning of the semester but about 4 or 5 weeks in, they’re like “Ok, I’m in this and I need help with this and this is great,” ...it’s very important...that’s all I have to say. (Rachel)

Since these interviews were conducted James and Howard have completed their Bachelor’s degrees. Howard’s road back is the beginning of a new journey. Shortly after graduation he began a career with a company that required a move to another region of the country. Like Rachel, James is still working as a tutor for the community college. The overarching pay it forward theme reflected in the previous excerpts appeared in nearly every participants’ story. The next stage, The Resurrection, is described by Vogler (1998) as the final exam as they bring their rewards from the Special World into the Real World.

Stage 11: The Resurrection: “all of a sudden, I’m...a productive member of society”

Using the metaphor of the final exam, Vogler (1998) explains the Resurrection stage of the journey. “To learn something in the Special World is one thing: to bring the knowledge home as applied wisdom is quite another. Students can cram for a test but the Resurrection Stage represents a field trial of a hero’s new skills, in the real world” (p. 199) The theme that has appeared in participants stories is summed up by Elijah when he states, “I’m a lot different than what I was before.” Our participants have new identities that incorporate the best of their accumulated knowledge and experience from both the Ordinary and Special Worlds. Ellen shares perceptions of her new identity.

...it has really changed my life like...I went from...Amazing Grace...talking about...God “saved a wretch like me,” ...this journey... further my education in college has “saved a

*wretch like me,” ... it’s really taken me from this ...outskirts of society type...the underdog ...it’s taken me from this detrimental situation, this horrible situation, no future situation to all of sudden, I’m...a productive member of society...I have this bright future...
...my educational experience and path has literally changed my life. It probably literally has saved me from a person I could have been or my only option that I would have been able to be...if I had anything to say...that it completely saved my life and turned my life completely around to just I mean a whole different perspective and person. (Ellen)*

The meta-theme I am different remains and is merged into their new identity. Carrie describes an internal struggle as to her place back in the real world.

I was talking to somebody the other day and I said um, “Sometimes I just don’t feel like I belong here,” and that’s the truth...it’s a matter of you, I’m working with a bunch of middle class people who’ve been middle class their whole life or are higher and I am still feeling like a 2nd class citizen...a person asked “you still feel like that,” and I said “Sometimes.” I said “But, don’t get me wrong. In my job, in my office, on my turf...I own this. I own this. I don’t question myself. I have absolute confidence in myself,” (Carrie)

Although still battling doubts, the knowledge and experiences of her journey have provided the armor of “absolute confidence”. This confidence extends to the discipline of mathematics which in this excerpt Carrie claims as part of her new identity.

*I always looked at it as a puzzle. I find it odd, that as a kid, I’ve...never seen the fun in that, but as an adult I could sit down and do math for hours and enjoy every minute of it.
... I like math now. I mean... I would have never said to somebody, “I’m a math person”,, but, I kinda am...I’m the person that now sits around and thinks, OK, how much of I paid this person over the last couple of years for rent? You know, I would’ve never done that*

before... that seems small...but...it is a change in personality that came from that... looking at things in more depth and more critically, I didn't do that before and I think math gave that to me. (Carrie)

Participants have expressed the hope that their stories will help others. Moses hopes “as far as the research paper...for somebody to read it...if it could help them out.” Carrie talks about her participation in the project.

...I like talking. If this can help people, I'm honor to be a part of that. I mean genuinely... Between me and you and that coat rack there, I'd do this job for free but don't tell them...I mean that's what this is for me...it gives me an opportunity to be able to give back a little bit and maybe help somebody else that's...getting ready to start a journey... just lay it right there...starting a journey...that I just came off and hopefully they can find the joy in their lives from this as the same as I did. I miss it. You know as...exhausting as it was... (Carrie)

As part of the pay it forward meta-theme. We see an empathetic nature exhibited by nearly all of the participants. Ellen who experienced the most formidable obstacles in her ordinary world provides a remarkable perspective.

and so I felt like that gave me hope too for the future because I felt like no matter how bad you have it, somebody really, truly does always have it worse than you, (Ellen)

Additional evidence of the pay it forward meta-theme is found in this excerpt where Howard articulates his motivation to help others.

Well, I feel if you're put in a position where you could help someone out... I've learned from coming up to where I am now...to this day. ...if you're in a position where you could help someone, you should...just recently...in one of my classes here at the university, we

got assigned a project where we...helped out...a non-profit and that was a wonderful experience for me...we got assigned a women's center... for victims of domestic violence whether it's verbal abuse, physical abuse, you know sexual abuse...my brother and I had been victims...more so...verbal...not really a lot physical...from the start of that, I was "Wow," you know "I ... want to do this," ...now I can help, I can try to help make a difference and I did...when I went out there and met the lady, she was just so excited to see me...at that point, I realize that they get no government funding so everything that they get, was from our donations and from donations like us, so it really made me feel good about doing that...I'll see guys that stand out here...to sell those newspaper and like I'll...try to help em out when I can...I don't always have money to give em but if I've got...a few dollars then yeah, I'll give em a dollar...I mean that's the least I can do. It's the little things...that really could help make a difference just talking to someone, saying "Hello. How are you?" you know "I hope you have a Merry Christmas," ...this is things I've learned throughout my life...to not take for granted...it's just simple things like that. When you can help, you should...I'll say everyone needs help at some point or another and if you're put in a position, you know where you can help someone less fortunate, then you should do that...I still feel like that to this and day and I'll always feel like that...(Howard)

These excerpts provide powerful evidence of our participants' transformed identities. The forces of the world of the common day that had held them prisoner have been vanquished. The heroes of this story have taken ownership of their existence. They are equipped for new thresholds to cross.

Stage 12: Return with the Elixir: “I’ll never be able to repay it”

As the heroes complete their journey and return to the real world, this cycle of their heroes’ journeys are complete. Campbell summarizes the journey.

A hero ventures forth from the world of common day into a region of supernatural wonder: fabulous forces are there encountered and a decisive victory is won: The hero comes back from this mysterious adventure with the power to bestow boons on his fellow man. (p. 23)

One by one, the research participants are returning from their quests with the magic elixir of education. They become masters of multiple worlds. They are able to pass back and forth between the special world of higher education and the real world with little difficulty. They have overcome their fears providing mastery over the world inside themselves as well as the external world. A common theme expressed by the participants has been a sense of empowerment. Ellen began her quest with a description of stepping out of her comfort zone. In this excerpt she expands on what this means in her life.

I said about stepping out of your comfort zone...once you step out of your comfort zone, your comfort zone becomes bigger and then you have to step out of it again and it becomes bigger...the longer you stay out of it, that becomes your new comfort zone... until eventually you’re like this world class...all-star or whatever you want to say but you adjust...as you go. As you step out of your comfort zone...you adjust to this new comfort zone that’s now your comfort zone... So...looking at me now...I would look back at myself...before I started Somewhere State...I’m in a totally different comfort zone and ...way of life...even just having...a regular conversation with somebody, then I would

have been then... “Oh I’ve got a degree. I’m working on my 2nd degree,” you know I can have a conversation...with somebody and sound intelligent or at least halfway (Ellen)

Vogler (1998) interprets this stage of the journey as where heroes must share the magic elixir as evidence of maturity. The participants value their successful educational quests as powerful examples to others that obstacles can be overcome and better life trajectories realized. This excerpt from Howard’s interview expresses this belief.

I want them to, to get out of there...the projects. They still...live there...I won’t say it’s the worst place in the world but...a lot of people that live there...how can I say this without being mean...kind of want to live off the government...I do not want any of them to be like that. I’m like “This, this is not the, the way you need to be,”... “How are you doing in school?” ... “how’s your grades?” ... “You got any A’s this semester?” I can’t stress enough to tell them how...important getting a good education is, to go to school, every day. “You know there’s gonna be days where you’re tired. There’s gonna be days where you’re, you got to study 5 hours, 6 hours, 10 hours for tests for finals” ... man, I’ve been through it. It’s rough,” ...but it’s something that has to be done. It’s like you know you.... You see some, some people have really nice things. I was like “You’re not gonna have that without an education. I mean unless you’re extremely lucky and hit the lottery or something” ...but I’m like, “You know the chance of that happening, you know are slim to none,” so “You need to stay in school, get your education. I’ve been there. I know there’s some days where it’s rough. You’re not gonna want to go. I’ve been there, done that,” and I try to teach them through my experiences of just how important it is” (Howard)

Evidence of the transformative power of education to help others has become embedded in the participants’ belief systems. Their belief is that the magic elixir of education is so powerful it

does not just bring about personal positive changes, but can grow exponentially to and through those around them. Evidence of the meta-theme of paying it forward is found across the participants stories in the ways they describe caring for others as a responsibility. Carrie frames the idea of responsibility for others as a debt she can never repay.

Ah (laugh) and you know hopefully at some point, I'll figure that out. I'm not sure when but um, that's what I'm saying is I would not, I came here (Somewhere State) because they gave me something I never had before...what they gave me was they filled that big, gaping hole in my stomach...I always felt like I had this big hole. Something was missing which is where the addiction came from...school filled it. It filled it. I wasn't the academics, I was how I felt about myself and my successes...I just I'll never be able to repay that. I can try like hell but I'll never be able to fully repay it (Carrie)

As the participants complete the cycle of the hero's journey, their final exams have been passed and they have earned what Joseph Campbell calls the "freedom to live" (p. 205). They have slain internal and external dragons, taking ownership of their lives and with this earning the right to choose their own paths. They may choose to be leaders, teachers, or advisers. They may choose to settle down into family life, or begin another hero's journey, or both. The freedom to live includes relief from paralyzing fear, anxiety and other emotions that get in the way of living.

Returning to one of Ellen's previous excerpts she said this.

...now I'm on the path to...what I think I want to do with the rest of my life and I feel like even if I change my mind, it doesn't matter...I still got this...greatness that I've achieved ...I feel like...I've tossed the stone downhill and it's just getting easier from here...there's no rolling it backwards and like trucking up the hill because like I've gotten past that part. I feel like I've, I feel like the worst...I've gotten past it,

Epilogue

When the interviews were conducted Carrie and Rachel had already finished their four-year degrees. James, Ellen, and Howard and were working on undergraduate university degrees. Lillian, Moses, Elijah, Emma, and Ben were working on their associate degrees. Transformation is a lifelong process, for the participants as the completion of one journey marks the start of another. As of this writing

- Lillian has successfully completed her associate's degree. Her future plans are to complete a nursing program.
- Carrie has now assumed the role of mentor inspiring students to cross the threshold on their own heroes' journeys. She will soon make another border crossing into the labyrinth of graduate school.
- James recently completed his four year university degree with a double major in history and geography. He is still working part-time as a tutor in academic support at the community college and thinking about graduate school.
- Rachel has settled into married life and the full time job of being a Mom. In addition she is on her graduate student journey while working part-time at a two-year college as a tutor in academic support.
- Moses is still attending the two year college as a part-time student and only needs three or four courses to complete his associate degree.
- Elijah transferred to the university after one year at the two-year college. He is currently working towards an undergraduate degree.
- Emma has graduated from the two-year college and recently enrolled in the university. She is still working towards her goal of becoming a veterinarian.

- Ellen is in her next to last semester at the university and is on pace to graduate next semester with a degree in social work.
- Life issues forced Ben had to withdraw from school for a year. He will be back in school part time next semester. He needs four classes to complete an associate degree.
- Howard had his triumphant walk across the stage last semester earning his university degree. He had no trouble securing employment with his new degree. Last month his new journey has begun as he has relocated to another state to begin his new career.

Vogler (1998) leaves us with this. “But a good story, like a good journey, leaves us with an elixir that changes us, makes us more aware, more alive, more human, more whole, more a part of everything that is. The circle of the Hero’s Journey is complete” (p. 227).

CHAPTER V: DISCUSSION AND IMPLICATIONS

Summary of purpose and findings

As a community college mathematics professor, every semester I have under-prepared, under-resourced adult students with a history of failure in mathematics and a history of overall academic failure arrive in the classroom. Many of these students face mind-boggling socioeconomic related obstacles. Statistics predict these students will probably fail, and unfortunately, too many times the statistics prove correct. There is a glut of research focused on the failure rates of LSES community college students, especially as related to developmental education. However, every semester many of these students defy the statistics and undergo a positive transformative learning experience and find ways to become successful. These students are the everyday heroes providing the inspiration for this research. The purpose of the study is to understand the phenomenon of these positive learning transformations through the voices of LSES students who have shared this experience. Consistent with the purpose of the study and the complexity of the experience of human beings living in the world, this research is guided by a hermeneutical phenomenological approach. Hermeneutic phenomenology is not focused solely on the experience as an object but explores the experience together with its meaning (Henriksson & Friesen, 2012; Lévinas, 1987).

Ten current or former community college students contributed their stories through unstructured interviews. Follow-up interviews were conducted with two of the participants. The interviews were unstructured utilizing one question. What has been the participants experience with mathematics? All follow-up questions were determined by the participant responses. The analogy is made to pulling threads. If the participant brought something up as significant to his experience the thread would be pulled with a follow up prompt by the interviewer to “tell me

more about that.” Although their stories began with mathematics, the participants’ narratives went beyond that topic to overall life and academic experiences.

Interview transcripts were coded under the umbrella of a narrative coding structure that included the use of in vivo, affective, emotion, descriptive and thematic codes. The narrative structure used to tell the participants’ stories was based on Campbell’s seminal work, *The Hero with a Thousand Faces*. Campbell’s work, drawing heavily on the pioneering work of Carl Jung (1981) in analytical psychology and the idea of monomyth, a term coined by Irish poet and novelist James Joyce (1944). The Hero’s Journey or monomyth is a pattern found in stories of transformational quests based on universal human themes, spanning all cultures from antiquity to today. With each one of the study participants having experienced their own hero’s journey, the monomyth provided an effective map to understand and tell their complex stories. From these stories emerged the following six meta-themes.

- 1) The call of better: education is the magic elixir of the hero’s quest
- 2) Relationships and connections: mentors, allies and the learning environment as sources of inspiration and support
- 3) The border crossing: higher education is a foreign land, heroes must learn to navigate the new land quickly
- 4) Perspective transformations: changes in learning dispositions, and identity
- 5) Taking ownership: resilience, overcoming coping, adapting, juggling responsibilities
- 6) Paying it forward: feeling a responsibility to help others along their journeys

The call of better

The call to adventure is stage two of the hero's journey, described as the stage where the seeds of transformation are planted. Participants' are dissatisfied with their life situation, whether it be dead end or dangerous jobs, difficult family situations, crushing poverty, or the personal demons of addiction. Participants use language like "I had to change my path," or "I was" headed into a brick wall," or "I have no other options". Participants with children describe the need to be a positive role model for their children. The call to adventure can be an internal or external call, and frequently both. The external call could be a life event or a friend or family member planting the idea to pursue a college degree. Whatever the source of the call, the motivation is a need for better. Within this meta-theme participants share a common belief in the value of education. Education is the magic elixir that will bring about better. There is an important distinction here as education is framed as a need rather than a want. The participants do not always answer the call immediately. Sometimes they need something more to take action. It is at this stage the participants begin to formulate a sense of purpose. This sense of purpose is the beginning of a series of inner transformations that provide the motivation to complete their journeys.

Relationships and connections

Stage four of the hero's journey is called meeting the mentor. In the participants' stories, the meta-theme of relationships and connections first appears in stage four and continues throughout the rest of the narrative. Relationships are repeatedly cited as sources of inspiration, motivation, guidance, and training. Whether it is the former high school teacher who continually appears in one participant's life, urging her to go to college, or the adult educator who another participant says she will never forget, or the social worker who gave another participant hope in

the face of huge obstacles. For some of the participants parents were good mentors in some areas of their life, but were not able to provide the mentorship needed in unfamiliar academic worlds. The parent or parents of other participants were not positive role models and as such unable or unwilling to provide any mentorship. Frequently, the heroes of these stories seek out mentors through reaching out to teachers, tutors or peers. The use of connections here also applies to connections to the community college, four year college, or university as an institution. Participants use words such as *welcoming*, *inviting*, and *friendly* to describe their community college experience. Participants who continued towards a bachelor's degree contrasted this with being just a number at the university. One participant describes how she continued to access the support structure at the community college while completing her university degree. Taylor (2009) gives one of the core components essential in fostering transformative learning experiences as the formation of authentic relationships with students.

The border crossing

Campbell describes part one of the hero's journey as departure. Stage five, the border crossing is the end of part 1. The border crossing is an action stage where students answer the call and enroll in college. The heroes must depart their ordinary world and cross the threshold into the special world of higher education. One participant explains, "...they had just expected me to know what to do...". There are numerous obstacles here, the archetype of the threshold guardians are defending the border. These obstacles can be human or non-human obstacles. Placement tests and developmental education prerequisites are examples of non-human obstacles. Students describe their experience "*learning the ropes*" of college. A few of the things learning the ropes entails are understanding advising and GPA's, understanding the financial aid process, "scavenging for scholarships", what technology is available and how to use it, using and

accessing available support structures, creating support structures where support is lacking, knowing when they should drop a class because “it is not going to work”. Higher education is a cultural border crossing with much to learn quickly. However, this border is also where the work of converting threshold guardians to mentors and allies begins. The participants spoke highly of their developmental mathematics and English teachers. As one participant states, “I would have never passed if I hadn’t had that...developmental.” Another student talked about the value of being introduced to learning styles in a college success class and the positive impact this had on his own learning.

Perspective transformations

The hero’s journey is, by its nature, a timeless story of personal transformation. The purpose of this study is to understand these transformations. The seeds of transformation planted in stage two, the call to adventure, take root and grow throughout the narrative. The magic elixir is not simply the scrap of paper that is the degree, but is found in the participant’s increased knowledge and powerful perspective transformations. The working definition of success for this study includes the customary, easily measured indicators such as student retention, persistence, educational attainment, academic achievement and student advancement. However, this definition has been expanded to include not so easily measured holistic development across additional affective and relational domains, including intellectual development, emotional development, social development, ethical development, physical development, and spiritual development. Growth across these domains is evidenced by the participants’ reflections of their positively changed or strengthened perspectives. These perspectives are now integrated into their new identities. Within this meta-theme is the common theme, “I am a lot different than what I was before”.

Perspective transformations early in the journey are evidenced by phrases such as “first evidence I had that I wasn’t stupid”, or “Oh my Gosh, I’m smart.” Changed learning dispositions were noticed within phrases such as “I figured, I actually had to work at this” or “I started asking questions” or “it’s important to be teachable.” Participants noted that just getting by wasn’t good enough anymore, they wanted “to make A’s.” Changed mathematical dispositions are evidenced by phrases such as “I’m struggling through it and I’m getting it” or “starting to see how they use Math in real life.” One participant describes her new math disposition as discovering she could do something she previously thought she could not do, and “do it very well”. Evidence of long term personal transformation includes language by participants such as “I see things differently now”, “now I know how to learn,” “nothing can stop me now.” Openness to change is represented in the frequent use of words like “adjust” and “adapt” phrases like “sometimes you have to reprogram” or “step out of your comfort zone”. Positive identity changes are expressed with participants using words to identify themselves as “determined”, “empowered” and “successful.” One participant describes how she no longer feels “like an outcast.” Now she sees herself as “a productive member of society.” More evidence of perspective transformation and positive identities will be seen in the meta-theme, pay it forward.

Taking ownership

The meta-theme of taking ownership is firmly expressed in stage five, the border crossing, with the actual act of enrolling in college. Taking ownership is then a continuing thread throughout the remaining stages. The participants take ownership of both successes and failures. The words most frequently used by participants pertaining to this theme are overcome or overcoming. Evidence of this theme is seen through phrases such as “I made sure I communicated” or “you have to realize...it’s on you” or “I realized, you have to learn not to pity

yourself.” Reframing or positive self-talk appears to be at the heart of the remarkable resilience demonstrated by the heroes of this narrative. Reframing or self-talk strategies are employed as a means of coping and as a source of motivation. Success is redefined by the obstacles they have overcome. Evidence of this is found in phrases such as, “but what I was able to overcome” or “so you did good, considering” or “I felt that, for my situation, for what I went through, I did pretty good.” One participant describes his hero’s journey as a “circuitous route to success.” Another talks about “slipups...failed mathematics classes” that she overcame because she “...didn’t give up...I just kept going back and hitting the grindstone.” Participants reframe their difficult past experiences as instrumental to their success. They suggest that they may not have been successful without their difficult life experiences. In this way they have reframed past obstacles as positive factors in their lives. Examples are found in statements such as “I wouldn’t be who I am today without it” or “it’s made me a lot stronger.” Positive self-talk is evidenced in one participant’s belief that difficult situations are “temporary.” Another participant would persuade herself to keep working with the phrase “just 15 more minutes” as a way to fight off the always present exhaustion from the demands of being a mother, having a job, and being a student. In the participants’ stories, the relationship between increased ownership and increased resilience is revealed.

Paying it forward

The meta-theme of paying it forwards appears in stage six, test, allies and enemies and is related to the meta-themes of relationships and perspective transformation. Joseph Campbell describes the ultimate test of the hero as when he returns to share the magic elixir with others. Some of the participants become student workers, employed in helping jobs such as tutors, supplemental instructors, or new student orientation leaders. Emma, studying to be a

veterinarian, describes the opportunity to help fellow students as “rewarding.” Rachel describes this experience as a tutor. “When it clicks for them...that’s one of the best moments in the world.” Other participants find joy in helping fellow students. Lillian, studying to be a nurse, talks about helping younger peers “organize,” Moses encourages classmates to go to tutoring or study sessions with him. Ellen, studying for a career as a social worker, describes being an “advocate” for the community college, encouraging friends and family to go back to school with the statement “If I can do it, you can do it.” Howard describes helping a classmate with a learning disability in his developmental mathematics and English classes. “I felt obligated to help him...someone...not so different from myself”. Howard is emphatic in his belief that “if you can help someone, you should”. This sense of empathy was strong in nearly every participant. Carrie describes her joy in finding a career where she can help others on their educational journeys. She sees this as a way to repay those that guided and supported her journey, however, she acknowledges, it is a debt she can never repay. Carrie described participating in this research project. “If this can help people, I’m honored to be part of it”. Moses echoes this positive sentiment on participating in the research project with the hope that somebody will read it and it “helps them out.”

The meta-themes noticed through these students’ voices provide support for a call within the higher education community teachers and researchers to consider adopting a holistic definition of student success, a holistic approach to teaching, and a holistic approach to research. In the next section we will relate these meta-themes to previous research

Relationship to previous research

The idea for this research stems from a phenomenological dissertation of developmental students perceptions of unsuccessful and successful mathematics learning (Howard, 2008).

Although this study is not a replication, the findings of the previous study are relevant. Howard presents the following five themes, 1) turning points, 2) attitude, 3) motivation, 4) learning environment, 5) learning strategies. The theme of turning point can be located both within the meta-themes of the call for better and the border crossing. Themes of attitude and motivation are within the meta-themes of the call for better, perspective transformation, and taking ownership. The theme of learning environment is located within the meta-theme of relationships and connections. The theme of learning strategies is located within the meta-themes of relationships and connections and taking ownership.

The differences between this study and Howard's study are significant. Three of these differences are highlighted here. The first difference is context. The participants in the Howard study were developmental mathematics students at a western four year university of over 30,000. The university is described as being open admissions. The participants for this study are current or former LSES community college students located in the southern Appalachian region of the country. The community college is open access. At both schools students with below 19 ACT scores are required to take placement tests. The second difference is regarding participant selection. The purpose of this study was to understand this phenomenon as experienced by LSES students, and participants were chosen accordingly. Socioeconomic class was not a focus of the Howard study. The third difference regarded the type of phenomenological approach employed. This study employed a hermeneutical phenomenological approach in order to understand the experience and its meanings. A hermeneutical phenomenological approach is both descriptive and interpretive employing unstructured interviews as the source of data. Unstructured interviews are preferred to insure the story is in the voice of the research-participants without undue influence from the researcher. The Howard study employs a descriptive

phenomenological approach with a more structured interview protocol including a list of targeted questions. It is important to note that even with the different approaches there was considerable agreement between the themes of the Howard study and the meta-themes of this study.

This study seeks to understand positive transformational experiences of LSES adult students. The meta-themes assigned to the participants' stories can be situated within the core components of creating conditions for fostering transformative learning experiences. Taylor (2009) provides these core components as 1) individual experience, 2) critical reflection, 3) dialogue, 4) holistic orientation, 5) awareness of context, 6) authentic relationships. All of these components appeared directly or indirectly from the participants' stories.

The findings of this study lends support to increasing calls for a holistic approach to teaching and research that considers cognitive, affective, and relational domains as integrated strands, rather than as individual entities. Extending the idea of a holistic approach to teaching mathematics, we have a broad definition of mathematical proficiency. This definition is portrayed as a rope comprised of five integrated strands; conceptual understanding, procedural fluency, strategic competence, adaptive reasoning, and productive disposition (Kilpatrick et al., 2003). It can be argued that the strand of productive disposition encompasses both affective and relational domains. Affective in one's internal perspectives and relational in how mathematics applies to the real world. Goldin (2002) asserts that the cognitive demands of mathematical learning cannot be addressed independently of the affective demands. Cobb and Hodge (2002) present a relational perspective, encompassing the students' relation to the institution, the local community, and broader communities in a wider society.

The border crossing meta-theme from this study has been noted in the research literature. Giroux (2007) calls attention to "the need to create pedagogical conditions in which students

become border crossers...”(p. 20). McKay and Devlin (2014) argue higher education culture needs to be “demystified for students from low-SES backgrounds” (p. 949). LSES students must learn an invisible pedagogy characterized by often unstated expectations and requirements, and a university culture students would need assistance accessing or understanding (Lawrence, 2005; McKay & Devlin, 2014).

The perspective transformations experienced by the participants of this study are reflected within the research base devoted to affective issues, more recently described as non-cognitive factors. Mindset and GRIT based interventions have become increasingly popular in education at all levels (Almeida, 2016). Yeager and Walton (2011) describe these as social-psychological interventions that “hold significant promise for promoting broad and lasting change in education...” however they caution that these are not the one-size-fits-all solution that will be the magic bullets to save education. These interventions are context-dependent and need to be adapted for use within different educational environments. Almeida (2016) warns that over-reliance on these policies could result in ignoring systemic problems creating obstacles for marginalized groups. He also stresses that it is important to keep support structures in place that allow for the social connections that appear to be the primary ingredient in fostering positive mindset changes.

There are many other connections to the higher education and two-year college research literature, which is to be expected with the complexity of human experience. This complexity created difficulties in that there was always a new rabbit hole to enter. This and other problems will be discussed in the next section

Unforeseen research problems

The main problem to solve was rooted in my own naïveté as a novice researcher and phenomenologist. It is easy to toss around a word like complexity, but one does not truly understand the scope and depth of this until one heads down the rabbit-hole. Van Manen (1990) maintains that an understanding of phenomenology only occurs by doing phenomenology. The problem that arises from using an approach rather than a method is that you must find your own way. Finding my own way meant arousing curiosities that led in so many different directions, down so many rabbit holes, that at times it was difficult to retain a manageable research focus. Finding my way plus the complexity of the phenomenon required much more time and difficult decisions as to what to include what to leave out.

Another problem was the unexpected difficulties in finding participants. Although a few potential participants were referred from other faculty and staff members, there simply were not enough to meet the needs of the study. I was concerned that two of my participants were not LSES students, however after their interviews it became clear even though their economic obstacles as children and adolescents were not as severe, the difficulties they faced as young adults stemming from unsuccessful first attempts at college, resulted in their being a good fit for the study. Two of the participants who provided incredibly rich accounts of their experience were happy accidents. One a former developmental mathematics student who approached me for a reference, and the second a friend of hers she described as “perfect for the study”. She was right

The final problem turned out to not be a problem. A hermeneutic phenomenological study evolves over the course of the study. I was surprised and initially dismayed that the participant stories turned from mathematics to their life and overall academic experience.

However, this also turned into a happy accident, in that it has resulted in a richer description of their transformational experiences. This provided a view of their mathematics experience as totally integrated with their overall academic experience. It has also revealed a surprising gap in the research literature of the undergraduate mathematics experience.

Contribution to research

This study addresses four areas where research is lacking. First, there is a call within the mathematics education community for less gap gazing on academic disparities for marginalized groups, and of the need for more studies of quality and success within those groups (Cobb & Hodge, 2002; Lubienski & Gutierrez, 2008; Stinson, 2010; Walker, 2006). Second, there is a shortage of research that focuses on socioeconomic class as the primary lens of study.

Socioeconomic class is frequently examined in conjunction with or secondary to other factors such as race, ethnic background, or gender (Gutierrez, 2008). This study employed maximum variation sampling across race, ethnic backgrounds, gender, age, and across rural, suburban and urban communities to insure socioeconomic class was the primary lens through which this phenomenon was viewed. Third, although there has been a recent increase in research focused on community colleges, these are again studies that focus on failure, especially for students placed in developmental or remedial studies. Additionally, studies are primarily conducted through the lenses of K-12 or four year undergraduate education. This has resulted in a failure to see community college as a unique educational context. It has been noted within the growing two-year college research community that the majority of community college studies are conducted by researchers housed in universities. There is a demand within the two-year college mathematics education community for more research conducted by researcher-practitioners from within two-year college ranks (Mesa et al., 2014). In my positions as a full time community

college mathematics faculty member this need is met. The fourth need is for more studies from the perspective of adult community college students. This study has allowed their voices to be heard.

Implications of the findings

The purpose of the study was to describe and interpret the phenomenon of successful academic transformations for LSES community college students. A better understanding of the experience of students who have had positive academic transformations could help in creating and maintaining environments where more students can experience their own successful transformations. Qualitative studies, such as this, do not produce replicable findings that can be generalized. It is not the purpose of these studies to find the silver bullet or one-size-fits-all solution guaranteed to fix complex systemic problems. Indeed the research stance of the qualitative or interpretive researcher is that these silver bullets do not exist. As outlined in chapter three, this stance is rooted in the belief that everything in human experience is context dependent, and as such defy generalization. What this study does bring to stake-holders is potentially transferrable ways that could prove affective in similar academic contexts. Based on this caveat the following implications are shared.

First, for LSES students embarking on their own academic journeys, more support from faculty, staff, and peers is needed at the border crossings. Currently, border crossing students are expected to know things they could not possibly know. Navigating higher education is incredibly complex with many unknowns. These unknowns include the mysteries of the financial aid process, advising and course selection, where and when to access support, what to do in absence of support, what technology is required and how does one learn how to use it, what does one need to know about a syllabus, what is academic writing, and the list goes on. By the time many

students “learn the ropes” it is frequently too late. For those of us tasked with the job of teaching, we must remember to provide guidance with both the explicit and implicit norms, that is, the hidden curriculum of what is a foreign culture for the LSES student. For the participants of this study it was revealed this initial support was primarily provided by their developmental education faculty and the tutors. Verification is situated within the meta-theme of connections and relationships.

Second, authentic relationships may be the most important factor underlying positive learning transformations. The findings of this study suggest that from these relationships the essential invisible threads of connections to the institution become stronger. Some of the characteristics of authentic relationships are trust, care, transparency, connections, cooperation, commitment, communication, and character. Dahlberg’s et al. (2008) comparisons of nursing and teaching described the need for a holistic orientation based on an ethic of caring. The participant’s stories reflect the positive impact of faculty and staff operating within this ethic of caring. This again connects the meta-theme of connections and relationships. As representatives of the college, we must maintain a spirit of empathy especially if we are the points of first contact with the institution. From a practical standpoint, many of the obstacles faced by underprepared LSES students are difficult, if not impossible for the individual instructor or tutor to rectify. However, it is within the power of the individual faculty or staff member to operate with a holistic orientation based on an empathic ethic of caring. In regards to the students’ stories of their classroom experience, the relationship with their instructor was more important than instructional methods or curriculum.

Third, contrary to the acceleration drumbeat from well-financed education reformers, the findings of this study suggest that there is value in developmental education for many LSES

students. Seven of the ten participants described their developmental studies experience positively and essential to later success in their college level coursework. Adult and developmental educators, in their essential roles as guides for LSES students entering a new culture, emerge as the unsung heroes of many of these success stories. For students entering the community college today, many of the programs these students were able to access are no longer available. The implication from these stories regarding developmental education is the need for a comprehensive plan with different pathways based on the needs of the individual students.

Fourth, based on the findings of this study the mindsets and learning dispositions of adult students are malleable and central to the experience of positive perspective transformations. Common to these transformational learning experiences are the students' initial connections to faculty, staff, peers, and the institution as a whole. These early connections result in growing attitudes of confidence and determination that carry them through the less nurturing culture of the university.

Fifth, nearly every participant of this study described satisfaction from being able to help others. They were eager to share their growing understanding of the norms and culture of higher education with peers on their journeys. Access to student worker and volunteer opportunities for these students resulted in increased pride and confidence and a sense of an empathetic responsibility towards society as a whole. We will examine ways this can be leveraged in the next section with recommendations.

Sixth, the implication here is specifically related to mathematics instruction. For the majority of the participants, they describe good teaching as when the instructors work through step-by-step rather than an approach that involves open ended problems and, the productive struggle. One participant said he did not need to understand. A second participant suggested that

mathematics teachers make it harder than it needs to be. If there are multiple ways to solve a problem students should only be shown the one simplest way, so as not to confuse them. There exists a significant gap between the student perception of good teaching and student concept of what it means to be mathematically proficient, and the mathematics teacher's perception of quality instruction and expectations of mathematics proficiency. We will discuss the need to reconcile these points of view in the next section

Recommendations

This section will be organized in two parts. The first part will be recommendations for action. The second part will be recommendations for research. These recommendations are rooted in the core components of a learning environment that fosters transformative learning experiences. The maintaining of a holistic orientation requires expanded views of student success, teaching practices rooted in an ethic of caring, and a return to a research mindset that values heterogeneous ways of knowing.

Recommendations for action

This first recommendation is rooted in both action and policy. As higher education faculty and staff, we no longer have the option of ignoring the affective issues of emotions, attitudes, beliefs, and values. A holistic orientation requires cognitive, affective, and socio-cultural issues be addressed as an inter-related whole that is greater than the sum of its parts. As the research participants described their experience of academic transformation, they addressed the cognitive, affective, and sociocultural factors as an integrated whole. This requires that we approach our work with an ethic of caring, acknowledging the inseparability of knowledge, ethics, and action. As Engstrom and Tinto (2008) assert, access without support is not access. We must strengthen and maintain strong support systems at the student thresholds into the world

of higher education. The practical reality of budget cuts brought about by the ongoing downward spiral of tax dollar support and increasing administrative expenses creates practical difficulties maintaining these support structures. Although student workers and volunteers can help alleviate some of these budget pressures, they are not as affective unless they are able to work together with some seasoned travelers of the world of higher education. Retired educators and student workers working together with some faculty support are perhaps the most cost-effective way of maintaining essential support structures. Findings from this study suggest that tutoring centers or learning commons maintained in smaller welcoming spaces are more likely to be accessed by students. There is a fear across the education community that an over-reliance on socio-psychological interventions, such as grit and mindset programs, will be used in place of, rather than in conjunction with providing adequate support structures. The fear is this will lead to what some refer to as victim-blaming. Victim-blaming characterized by the suggestion that students do not succeed because they do not have enough grit with no consideration for the lack of adequate academic, economic, emotional and social support. The findings of the study support the concept that mindsets are malleable, but as institutions we do not need to use grit and mindset programs to avoid creating the essential welcoming and supportive environments that are crucial to positive learning transformations. In my own experience as a member of two-year college faculty I already see this fear being realized. The findings of this study and previous research show that positive mindset transformations and increased confidence and determinations symbolized in the grit narrative, require authentic relationships established through strong support systems.

The second recommendation for practice relates to the discussion as seen by many as the commoditization of higher education (Noble, 2002; Shumar, 1997). This idea has been presented

that there is little to no value or purpose in students learning and adapting to the norms and culture of higher education. Many decry the work of higher education framed as specialized job training supposedly at odds with the classical purpose of higher education. The classical view focusing on the development of lifelong critical thinking and learning dispositions that allow an individual to fully participate as what one participant of this study described as a “productive member of society”. However, the findings of this study indicate that learning how to adapt to the new culture of higher education is to be desired. One participant described this as stepping out of her comfort zone, into what became a new and bigger comfort zone. The argument has been made that learning experience should provide both a window and a mirror. A window to learn about others, and a mirror to reflect on oneself (Gutiérrez, 2012; Style, 1996). In this vein, the process of being able to adapt to new cultures is an important life skill.

The third recommendation for practice is specific to the discipline of mathematics, specifically math dispositional obstacles, but the idea could be transferred to any discipline. The findings from this study revealed a disconnect between student and teacher expectations in the college mathematics classroom. This recommendation is rooted in the implication that border-crossers need guides helping them understand both explicit and implicit expectations of the college curriculum. As part of helping students adapt to the norms of the new world of higher education, faculty must do a better job of explaining that the student role in the college mathematics classroom will be different than their previous roles in the mathematics classroom. Their new role is the active role of a doer of mathematics, rather than the passive role of a watcher of mathematics. Most students’ previous mathematics experience has been characterized by the passive role. Practitioners need to sell this by explaining and demonstrating why embracing this new role is in the long term best interest of the student. Their best interest will be

well-served in their personal development as a critical thinker and problem-solver and their ability to understand the interconnected nature of mathematics to the world. According to the participants in this study, teachers foster this by demonstrating passion and enthusiasm for mathematics.

Recommendations for research.

Community colleges have recently undergone top-down mandated changes. The claim is made that these are evidence based practices, However, the bulk of this research is influenced by well-funded non-profits, staffed by savvy political operatives, pushing a corporate agenda of simplistic solutions for complex context based problems (Fain, 2012) . Their agenda ignores the diverse needs within the community college student population. One example is the acceleration agenda that ignores the fact that the majority of community college students are working adults with family responsibilities that require a part time option. Another example is the Bill and Melinda Gates and Lumina funded Complete College America with a stated goal to end developmental or remedial programs at community colleges (Fain, 2012). These so-called reforms ignore the wide range of students' academic needs that are inherent in the open-access environment of community college. Community college researchers and practitioners need to show there is much more to this narrative. There is a call for independent studies of context-based success stories to counter the simplistic narrative that is totally focused on increasing the number of diplomas and certificates awarded with no attention to quality.

A second recommendation for research was discovered inadvertently though the course of the study. A search for research of regarding the non-STEM student experience in the undergraduate mathematics classroom revealed a startling lack of research in this area. Most of

the students in community college mathematics classroom are non-stem students, yet there is little research in this area outside of the developmental mathematics experience.

Autobiographical reflection

As I approach the end of my dissertation journey, there is much upon which to reflect. I never expected this journey would send me in so many different directions. To quote Grateful Dead lyricist Robert Hunter, “what a long strange trip it’s been”. The numerous side trips on this journey have aroused my curiosity in so many arenas. The additions to my personal library probably cannot be read in all of my remaining years. This study has opened my eyes to the meaning of education and the need to educate the whole person. It has strengthened in me a desire to fight for public education and against the anti-intellectualism that is sweeping our nation. Van Manen echoes Gadamer in the argument that the only way to learn phenomenology is to do phenomenology. Phenomenology is not a research method; it is an orientation towards the world that allows one to see the interconnectedness of everything in a richer way. This experience has made me a reflective scholar, a better teacher, and most importantly a better person.

I am frequently asked, what will I do after I complete my dissertation. This is an easy question to answer, because I am already doing it. Following Campbell’s recommendation, I have followed my pathway to bliss. juggling the demands of the completion of doctoral program and the always increasing demands of a community college mathematics professor have been exhausting and at times incredibly frustrating, but still rewarding. What I will do in my life after the dissertation is work to become a more effective advocate, for my students, my colleagues, and public education. As a researcher, my goal is to continue to allow people to share their

narratives as way of understanding the complexities of human experience in educational contexts. The magic elixir of my doctoral experience will aid in that endeavor.

In our current climate of the acceleration narrative, the wholesale dismantling of productive developmental education programs, and the continued pointless search for the one-size-fits all remediation scheme, we must be reminded that at the community college we are in the business of being open access, democratic institutions providing everyone a chance at higher education. We are tasked with educating people, other human beings, not numbers. Many of the current “reforms” would have made these success stories and my own impossible.

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APPENDICES

APPENDIX A: UNIVERSITY INFORMED CONSENT

The University of Tennessee Office of Research Research Compliance Services	Pellissippi State Community College Institutional Effectiveness, Research and Planning
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PSCC Student-Participant Informed Consent Form

Stories of Success: A Phenomenological Study of Positive Transformative Learning Experiences of Low-Socioeconomic Status Community College Mathematics Students

INTRODUCTION

You are invited to participate in a research study conducted by John Smith, Pellissippi State Community College(PSCC) assistant-professor and doctoral candidate of the University of Tennessee (UTK), Department of Theory and Practice in Teacher Education. This research project is supervised by dissertation chair, Dr. Lynn Hodge, of the University of Tennessee. The research is being conducted to learn more about the experience of students who have overcome economic hardships and previously unsuccessful mathematical learning experiences to become successful college mathematics students. To do this, Mr. Smith is interested in your perspective and understanding of your transition to success. The objective of the study is to help mathematics educators and students identify resources that can be capitalized on to foster positive mathematics learning transformations. In addition, your perspective of aspects that detracted from your learning can provide useful information for mathematics education researchers, faculty and students. This information will be helpful to designing mathematics and academic support programs here at PSCC, and contributing to the body of knowledge for the designers of programs outside of PSCC.

INFORMATION ABOUT PARTICIPANTS' INVOLVEMENT IN THE STUDY

If you give your consent to participate, you will participate in an initial interview of no longer than 60 minutes, if needed a follow-up interview of no longer than 30 minutes, and a focus group review of no longer than 90 minutes of the aggregated findings with the other research participants. The interviews will take place in conference rooms at any of five PSCC campuses most convenient for you. Each interview will be digitally videotaped. The digital files of the interviews will be stored in John Smith's office on an encrypted external drive and will only be shared with Dissertation Chair, Dr. Lynn Hodge of The University of Tennessee Executive Director of Research, Nancy Ramsey of Pellissippi State Community College.

RISKS

No discomforts or inconveniences are anticipated. The interviews will take place during a time that is convenient for participants and will not interfere with instructional time. Participation or nonparticipation will have no impact on students' grades in their mathematics classes. You have the right to withdraw from the research at any time.

BENEFITS

This research will contribute to understandings of the why and the how of low SES students' successful academic turnarounds. This research will help in the design of effective programs of support for students who face economic difficulties and have previous histories of academic difficulties. Participants in similar studies have experienced feelings of comfort and empowerment, as well as satisfaction regarding the possibility of being of help to others facing similar obstacles.

CONFIDENTIALITY

Any information that is obtained in connection with this project and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Subject identities will be kept confidential by assigning pseudonyms to participants. The subject identities will be known only to the principal investigators and fellow focus group participants.

Please be advised that although the researchers will take every precaution to maintain confidentiality of the data, the nature of focus groups prevents the researchers from guaranteeing confidentiality. The researchers would like to remind participants to respect the privacy of your fellow participants and not repeat what is said in the focus group to others.

CONTACT INFORMATION

If you have questions at any time about the project or the procedures (or you experience adverse effects as a result of participating in this project) you may contact the Principal Investigator, John Smith, MA 143A, 1410 E. Magnolia Avenue, Pellissippi State Community College, Knoxville, TN 37996-3442, (865) 974-8778. If at any time you feel pressured to participate, or if you have any questions about your rights or this form, then you should contact Nancy A. Ramsey, Executive Director of Institutional Effectiveness, Research and Planning, and Chair of the Pellissippi State Institutional Review Board at telephone 865-694-6526 or email naramsey@pstcc.edu.

PARTICIPATION

Your participation in this project is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the project at any time without penalty and without loss of benefits to which you are otherwise entitled. If you withdraw from the study before data collection is completed your data will be returned to you or destroyed. Your participation will not impact your grade for any PSCC course.

CONSENT

Your signature indicates that you have read and understand the information provided above and that you willingly agree to participate in this project, that you may withdraw your consent at any time and discontinue your participation without penalty, that you will receive a copy of this form, and that you are not waiving any legal claims.

Participant (University Student) Name: _____

Participant (University Student) Signature: _____

Principal Investigator: _____ Date: _____

APPENDIX B: TWO-YEAR COLLEGE INFORMED CONSENT

<p>The University of Tennessee</p> <p>Office of Research</p> <p>Research Compliance Services</p>	<p>Pellissippi State Community College</p> <p>Institutional Effectiveness,</p> <p>Research and Planning</p>
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Recorded Media Addendum to Informed Consent

Project Title: *Stories of Success: A Phenomenological Study of Positive Transformative Learning Experiences of Low-Socioeconomic Status Community College Mathematics Students*

Date	<u>01/13/2014</u>	Investigator	<u>John T. Smith</u>	Email	<u>jtsmith2@pstcc.edu</u>
Department	<u>Transitional Studies Department</u>		Phone	<u>(865) 329-3141</u>	

Description:

The researchers will video-record participant interviews to insure the most accurate transcription of the interview to be analyzed with qualitative data analysis software.

Confidentiality:

You will not be identified by name in any use of the video recordings. Even if you agree to be in the study, no photographs or video or audio recordings of you will be taken unless you specifically agree to this. Findings for this study are to be reported using a creative non-fiction approach, with pseudonyms used for characters that represent a synthesis of the data collected from the study participants. Video-recordings are made solely for the purpose of accurate transcription and data analysis of participant interviews and will not be used for presenting or publishing this research. Digital files of all video-recordings will be kept on an encrypted external drive stored in a locked file cabinet at the home office of the principal investigator, John T Smith, 310 Shoopman Ln., Oliver Springs, TN 37840. After three years all digital files containing the video-recordings of the interviews will be deleted.

Please be advised that although the researchers will take every precaution to maintain confidentiality of the data, the nature of focus groups prevents the researchers from guaranteeing confidentiality. The researchers would like to remind participants to respect the privacy of your fellow participants and not repeat what is said in the focus group to others.

Voluntary Consent:

By signing below, you are granting to the researchers the right to video-record interviews associated with this project for the purposes stated above. You can withdraw your voluntary consent at any time.

If you have any questions later on, the principal investigator, should be able to answer them: John T. Smith, MA 143A, Pellissippi State Community College, 1410 East Magnolia Avenue, Knoxville, Tennessee 37917. If at any time you feel pressured to participate, or if you have any questions about your rights or this form, then you should contact the Ms. Nancy Ramsey, Director of Institutional Effectiveness, Research and Planning, and Chair of the Pellissippi State Institutional Review Board at telephone 865-694-6526 or email naramsey@pstcc.edu..

Research Participant's Printed Name & Signature	Date
Principal Investigator's Printed Name & Signature John T. Smith	Date

APPENDIX C: UTK IRB APPROVAL

THE UNIVERSITY of TENNESSEE **UT**

KNOXVILLE

Office of Research & Engagement
INSTITUTIONAL REVIEW BOARD (IRB)

1534 White Ave.
Knoxville, TN 37996-5229
865-974-7697
fax 865-974-7400

March 21, 2014

IRB#: 9446 B

Title: Stories of Success: A Phenomenological Study of Positive Transformative Learning Experiences of Low-Socioeconomic Status Community College Mathematics Students

John T. Smith
Theory & Practice in Teacher Education
310 Shoopman Lane
Oliver Springs, TN 37840

Lynn Hodge
Theory & Practice in Teacher Education
A410 Bailey Education Complex
Campus - 3442

Your project listed above has been reviewed and granted IRB approval under expedited review.

This approval is good for a period ending one year from the date of this letter. Please make timely submission of renewal or prompt notification of project termination (see item #3 below).

Responsibilities of the investigator during the conduct of this project include the following:

1. To obtain prior approval from the Committee before instituting any changes in the project.
2. If signed consent forms are being obtained from subjects, they must be stored for at least three years following completion of the project.
3. To submit a Form D to report changes in the project or to report termination at 12-month or less intervals.

The Committee wishes you every success in your research endeavor. This office will send you a renewal notice (Form R) on the anniversary of your approval date.

Sincerely,



Brenda Lawson
Compliances

Enclosure

Big Orange. Big Ideas.

APPENDIX D: PSCC IRB APPROVAL



INSTITUTIONAL EFFECTIVENESS, RESEARCH AND PLANNING

January 23, 2014

John T. Smith
310 Shoopman Lane
Oliver Springs, TN 37840

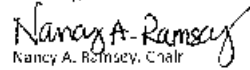
Dear Mr. Smith,

The Institutional Review Board at Pellissippi State Community College has received your application for permission to conduct your PhD study, *Stories of Success: A Phenomenological Study of Positive Transformative Learning Experiences of Low-Socioeconomic Status Community College Mathematics Students*. The Board believes the design of your study meets the Federal requirements for protection of human participants. Your application has received approval as required by PSCC Policy 08.02.01 Conducting Research at Pellissippi State.

Pellissippi State can provide affirmation to the researcher that self-identified students do qualify as low-income. No specific data will be used in the research regarding low-income ranges.

Any significant changes in the research project must be reviewed by the IRB at Pellissippi State. Please submit any changes in writing. The College looks forward to seeing the results of the study.

Sincerely,


Nancy A. Ramsey, Chair
Institutional Review Board
Letter modified March 19, 2014

APPENDIX E: MATHEMATICS FACULTY PARTICIPANT REQUEST

I hope your semester is off to a good start. I'm asking for some input from math faculty members in regards to my dissertation research. I am searching for stories of success. I am trying to identify students who had overcome economic obstacles and previous mathematics failure but eventually found a way to transform themselves into successful college mathematics students. I am trying to identify at least eight students who have experienced this phenomenon and are able to articulate their experience.

What I need from colleagues is recommendations of students from their previous classes who would be good candidates to be participants or co-researchers in this study. All I need is the name of the student who might be a worthwhile candidate and your participation is finished (I know how busy we all are), When I contact the student I would like to tell them you recommended them as a good candidate for participation. I am hoping for 20-25 referrals of which I will select at least 8.

This is qualitative, more specifically phenomenological research, which is described in the attached IRB documents. The interview process will be three-phase. The first interview is a screening interview for both the potential student participant and for me as the researcher. If we both believe that participation in the study is worthwhile the second interview will be recorded and transcribed after the informed consent documents are signed. The third phase will be a focus group review of the findings with the participants. Participants' identities will be kept confidential. Academic and financial aid records will be consulted to verify previous academic histories and socio-economic status. Participants must have completed the developmental or learning support mathematics coursework prior to their successful completion of one or more college-level math classes. This criterion provides additional verification of previously unsuccessful mathematics experiences. I have provided a definition of success that can be found in the second footnote in the IRB documents. Even if they previously failed a college-level mathematics class but managed to persevere and eventually successfully pass college-level coursework they may well be considered successful. The total time commitment of each student or former student, who may have graduated and moved on, will be approximately 4 hours between February 2014 and September 2014.

I have attached a copy of the IRB request, which has been approved by PSCC. I am still awaiting approval from the University of Tennessee, however it is expected that the research will be approved.

I appreciate your help with this. I am confident that through these students' stories we will understand more about successful learning transformations, as lived by those who have shared this experience. Thanks for your time.

(Distributed via email to mathematics faculty listserv)

VITA

John Thomas Smith, Jr. was born in Chicago, Illinois in 1954 to parents John Thomas Smith, Sr. and Patricia McMahon Smith. He was the oldest of five children and 29 grandchildren. He was born into a proud, Irish-Catholic, working class family. He attended eight different schools across four states before landing at Columbia High School in Decatur, Georgia for his final three years of high school. After graduation in 1972, John had three unsuccessful attempts at college before transitioning to the *school of life*. Prior to his 2003 re-entry into the academic world at the age of 48, he had nearly three decades of experiences that included stints as a soccer player, soccer coach, construction worker, cook, waiter, bartender, bouncer, bar manager, bar owner, real estate agent, real estate appraiser, mortgage loan officer, single parent, and more. Since his return to the academic world he has earned a Bachelor of Arts in Spanish, a Bachelor of Science in Mathematics, and a Master of Arts in Teaching with a concentration in mathematics education from Piedmont College in Demorest, Georgia. John taught secondary mathematics for three and one-half years, working with at-risk populations in Title 1 schools in Georgia and Tennessee before joining the faculty of Pellissippi State Community College. He has taught mathematics and statistics at Pellissippi State Community College for eight years, earning the rank of Associate Professor. In 2009, motivated by his belief that understanding the importance of affective issues in the learning and teaching of mathematics is essential and a strong sense of advocacy for public education and its potential to alleviate social inequities, he enrolled in the doctoral program in Theory and Practice of Teacher Education at the University of Tennessee in Knoxville.