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An Investigation of the Online Learning Environment in Higher Education through the Observations and Perceptions of Students of Color

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An Investigation of the Online Learning Environment in Higher Education
through the Observations and Perceptions of Students of Color

by

Marie Adele Boyette

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
Department of Adult, Career, and Higher Education
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Dedication

I wish to thank Almighty God for being my source, my inspiration, and my strength. Every new day is an opportunity to praise and thank Him. I dedicate the thoughts, actions, and words found in this work to Him, and I declare His Word over my life. God is always the way: I am trusting you, Oh Lord, saying, "You are my God!" My future is in your hands. Psalm 31:14-15.

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ABSTRACT

A need exists to gain a better understanding of how the online learning environment found in higher education is perceived by students of color. The research completed for this dissertation explored student participation in the online learning environment in higher education by examining the observations and perceptions of students of color. Along the way, the process of the research journey drew attention to the lack of inclusion of students of color in the literature and data collected about online learning, and pointed to the existence of the digital divide and its impact on graduate students of color and their participation in online learning. In this study, no significant relationships were found in the examination of the nature of the relationship between ethnicity and the variables of gender, age, and self-reported computer experience. The online learning environment was not conclusively found to be an environment where opinions or critiques could be expressed more easily than in a face to face classroom, and the importance to students of having the opportunity to challenge white norms in the online learning environment was not found to be significant. Advice is offered from students and instructors of color providing examples of ways in which an online course environment may more fully consider the voices and experiences of persons of color.

Chapter One: Introduction

Online learning is an instructional format where the instructor and students are separated by time and/or distance and primarily use the Internet and a personal computer as a means of content delivery and student/instructor interaction to communicate and participate in a variety of educational activities. Online learning in higher education, an instructional model that serves about 3.2 million online adult students in a semester at degree granting institutions (Powers, 2006), continues to grow due to the convenience of adult learners being able to participate online via personal computers at times and places convenient to them. It is important to consider the observations and perceptions of online student participants in order to effectively address the needs of students participating in the online learning environment.

Although the literature is rich with contributions exploring teaching and learning in a multicultural society for traditional face to face teacher/student interactions (see Banks, 2001 for a good review), I find it troubling that so little research focuses on students of color in the online learning environment. Thus, it is important to provide research aimed directly at the participation of students of color in the rapidly growing online environment of higher education. Currently, mainstream examinations of and reports about online learning, students, and practices (see Moore, 2005 for an example), do not focus on or even include data specific to students of color. This lack absorbs the growing population of minority learners into the online learning environment without

taking into conscious consideration the perceptions of the online learning environment by students of color, or consideration of any particular needs or observations specifically expressed by students of color about the online learning environment.

Participation by persons of color in graduate education is increasing at a dramatic rate (National Center for Education Statistics (NCES), 2005). Total minority enrollment in graduate studies increased 254% vs. 27% for whites over a 27 year period. For both white and minority students, the fastest growth in degrees attained was at the master's level. From 1993-4 to 2003-4, master's degrees awarded to minority students increased by 105.7%, while those awarded to white students increased by 21.5% (Jaschik, 2006).

The plentiful literature surrounding online learning in higher education notes the importance of the growing population of students of color in higher education (Southern Regional Electronic Board (SREB), 2007) and the growth of online learning (Allen & Seaman, 2005, 2006), but leaves a gap with respect to research specific to the intersection of online learning and the population of students of color (Lal, 2003; Wang, 2007). Therefore, a need exists to gain a better understanding of how the online learning environment in higher education is perceived by students of color, requiring research which focuses on students of color and their participation. By directly seeking observations and perceptions about online learning from students of color who have participated in online learning, the research completed for this dissertation directs a much needed focus toward the experiences of students of color in the online learning environment by examining their observations and perceptions, and adds diversity to the research surrounding online learning.

Statement of the Problem

In order to address the needs of students participating in online learning, it is important to take into consideration the experiences and perceptions of those participants. The literature is rich with contributions exploring minority, ethnic, or racial issues for teaching and learning in a multicultural society for traditional face to face teacher/student interactions, and research dealing with the online learning environment is both prevalent and plentiful; however, research is missing from the intersection of students of color in higher education and the online learning environment. A need exists to examine this intersection due to the rapid growth in participation by students of color in the higher education environment, and the rapid growth of the online learning environment in higher education.

Purpose of the Study

The purpose of this study was to investigate the online learning environment in higher education through the observations and perceptions of students of color. Since little research has been directed toward students of color in the online environment of higher education, this study explored the intersection of the online learning environment and students of color in higher education using research questions to provoke inquiry, provide direction, and create a space for looking specifically at the observations and perceptions of students of color. It was not a study focused on differences between students of color and white students; this study sought to learn more about the online experiences of students of color, since there is little available research for this population of students and their participation in the online environment at the present time. Quigley reminds us that “research begins with a question and a desire for change” (1997). As a

practitioner and researcher in the field of adult education and online learning, I designed this research study as a small step toward a change in the status quo for a system where research typically has taken the white experience to be the widely accepted and normal experience for adult learners (Johnson-Bailey & Cervero, 2000).

Objective of the Study and Research Questions

This study gathers and adds new information to the body of knowledge surrounding online learning by examining variability among students of color and their perceptions and observations about their experiences in online learning. Based on needs expressed in the literature, the following questions guided the research:

1. What is the nature of the relationship between ethnicity and the variables of gender, age, and self-reported computer experience?
2. To what extent does the online environment provide a place where students of color can more easily express opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom environment?
3. If persons of color [students or online instructors] could offer online learning instructors and designers advice about providing an online course environment which fully considers the voices and experiences of persons of color, what would it be?

Theoretical Framework

Technology and Internet use within higher education has flooded the literature in recent years, and educators of adults are turning to adult education principles and practices, such as andragogy and self-directed learning, for an effective fit. Kasworm & Londoner (2000) advocate adult educators to “situate adult learning within computing technology . . . [becoming] innovators for its uses and applications” (p. 225) when

teaching adults. The research study found in this dissertation looks at adult learners over the age of 20 in the higher education environment of online learning and uses andragogy as “a conceptual framework” (Knowles, 1989, p.112). Andragogy provides a theoretical framework which helps recognize and articulate the needs of adult learners in an online learning environment since there is no universally accepted and comprehensive theoretical framework for online learning (McIsaac & Gunawardena, 1996).

Andragogy, the art and science of helping adults learn, is a group of principles and practices which provide a theoretical framework for adult learning (Knowles, 1975, 1980, 1984a, 1984b), with the premise being that adults should have the opportunity to take responsibility for, and an active role in, decisions made about their learning. Within the theoretical framework of andragogy, “the learner’s background is an essential component . . . students learn what is worthwhile in their own, real-life application” (Baird & Fisher, 2005/2006, p.7). According to the theoretical framework of andragogy, adults need to know why they need to learn something, have input into how they learn, approach learning as problem solving, learn experientially (including learning from mistakes), and learn best when topics have personal or immediate value. Andragogy is not a comprehensive theory, rather it is “a basis for an emergent theory” (Knowles, 1989, p.112). Andragogy as a theory is used as a foundation for contemporary research for the learning environment in higher education (Cassity, 2005; Hudson, 2005), and as a springboard for discussions about self-directed learning and online learning (Hiemstra, 2006; Tough, 2006). Andragogy provides a historical foundation for the education of adults, continues to influence the field and guide contemporary adult and higher education scholars and practitioners, and provides a background for studying practices in

online learning and higher education.

For adult learners, “the experiences of white students are considered normative...there is very little literature on any other ethnic or racial groups” (Aiken, Cervero, & Johnson-Bailey, 2001, p. 307). Along with considering the characteristics of age, gender, and ethnicity when examining student experiences in higher education (Tinto, 1993), the framework for this study provides a place to intentionally explore the observations and perceptions of students of color about the online learning environment, research which is desperately needed (Lal, 2003). The literature concerning educational practices for students in higher education rarely seeks out nor emphasizes the voices of students of color (Manglitz, 2003; Pryce, 2000), and this aspect remains a relatively unexamined facet of the research surrounding the online learning experience in higher education. In fact, seeking the perceptions of African American students regarding their student experience is considered a rarity (Ross-Gordon & Brown-Haywood, 2000). By using tools specific to the online environment such as e-mail and an online survey tool, and by directing an intentional view focused on the experiences of students of color, the plan for this research was that a picture of experiences encountered by students of color in the online environment found in higher education would emerge.

Significance of the Study

Students of color are typically underrepresented in the majority of higher education institutions as well as in the literature with “whiteness as the invisible norm” (Shore, 1997, p. 414), a fact which has been for the most part unacknowledged (Flannery, 1994) and unexamined (Rocco & West, 1998; Shore, 1997), and the literature reflects that this fact has not changed (Lather, 2003; Manglitz, 2003). Adults learn best when

their experience is acknowledged, when new information builds on their past experience, and when curriculum content is “meaningful, problem-oriented, and practical” (Caffarella, 1994, p.24-25). This study focused on the observations and perceptions of students of color who have taken online courses. The intent of this research was to contribute to the larger body of knowledge surrounding, describing, and shaping online learning for students in the higher education environment.

Definition of Terms

The following terms were used in this study:

Adult Learners: Students age 20 or older who have left a traditional high school environment.

African American: A person with origins in any of the Black racial groups of Africa.

American Indian or Alaska Native: A person with origins in any of the original peoples of North America and South America (including Central America) and who maintains tribal affiliation or has community recognitions as an American Indian or Alaska Native.

Anytime, Anyplace: A popular term for online learning where students participate from their own location at a time convenient to them.

Asian: A person with origins in any of the original peoples of the Far East, Southeast Asia, or the Indian Subcontinent, including for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand and Vietnam.

Asynchronous: An instructional format where the instructor and students are separated by time and distance. The student typically participates as an individual, rather than as part of a group.

Black: Black or African American refers to a person with origins in any of the Black racial groups of Africa. Black is considered a popular, if not politically correct, term (Weitz & Gordon, 1993).

Blackboard™: An online course management system.

Computer Anxiety: Apprehension and/or fear when using or thinking about computers which contributes to a state of anxiety in computing situations. Manifestations include worry, despair, distractibility, and physiological symptoms.

Computer Based Education (CBE): Instructional format using online learning and personal computers.

Computer Mediated Communication (CMC): Using a computer to engage in dialogue where the dialogue is presented as written text. Also referred to as electronic discourse or online dialogue.

Culture: Norms and practices of a particular group which are learned and shared and guide thinking, decisions, and actions.

Cultural Values: Group or individual's desirable or preferred way of acting or knowing which is sustained over a period of time and which governs actions or decisions.

Cyberspace: The online world created by the World Wide Web and personal computers.

Digital Divide: A popular name for the technology gap created due to disparity in technology resources ownership and access, and is attributed to different factors including: lack of easy Internet access by underserved students and schools, difference in cultural acclimation to technology, and lack of resources in higher education institutions to implement instructional technologies or to replace technology which quickly becomes obsolete.

Distance Learners: Students participating in classes taking place off campus where the instructor and class are separated by time and place.

Distance Learning: Classes taking place off campus where the instructor and class are separated by time and place. The terms distance learning and online learning are often used interchangeably in the literature.

e-learner: A student using a personal computer and the Internet to participate in a learning experience.

e-learning: Online learning using a personal computer and the Internet.

Electronic Discourse: Using a computer to engage in dialogue where the dialogue is presented as written text. Also referred to as online dialogue or computer mediated communication.

Ethnic: Refers to large groups of people classified according to common traits or customs.

Globalization: The increasing mobility of technology, education, and capital throughout the world.

Hispanic: A person with origins of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin: Latina (women) or Latino (men).

Minority/Minorities: Popular and widely accepted term for any race other than Caucasian.

Native Hawaiian or other Pacific Islander: Refers to a person having origins in any of the peoples of Hawaii, Guam, Samoa, or other Pacific Islands. (Native Hawaiian does not include individuals who are native to the state of Hawaii by virtue of being born there.)

Online: Using the Internet and a personal computer to communicate and participate in a variety of activities.

Online Class: A course of instruction which relies primarily on the Internet and personal computers as a means of content delivery and student/instructor interaction.

The term is used interchangeably with online course and web-based course.

Online Course: A course of instruction which relies primarily on the Internet and personal computers as a means of content delivery and student/instructor interaction. The term is used interchangeably with online class and web-based course.

Online Dialogue: Using a computer to engage in dialogue where the dialogue is presented as written text. Also referred to as electronic discourse or computer mediated communication.

Online Learner: A student interacting with a computer and the Internet to participate in a self-directed but structured learning experience.

Online Learning: Interacting with a computer and the Internet to participate in a self-directed but structured learning experience. The terms online learning and distance learning are often used interchangeably in the literature.

Race: There is no established agreement on a scientific definition except the fact that race has no biological or natural basis.

Self-directed Learning: A learning format where students take personal responsibility for their learning, including planning, finding help, content, and outcomes.

Students of Color: Students of any race other than Caucasian.

Synchronous: A class delivered face to face or online at a specified time and place.

Technology Gap: Also known as the digital divide, it refers to the gap between those with technology resources ownership and access and those without similar access.

Urban/Rural: Areas with more population density (urban) or less population density (rural). May also be commonly referred to as the city (urban) or the country (rural).

Virtual Community: The community composed of students and their instructor in an online class.

Web-based Course: A course delivered using the Internet and a personal computer in an asynchronous environment as the primary means of communication and course content. The term is used interchangeably with online class and online course.

White: Refers to the Caucasian race; a person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

White privilege: A sociological theory denoting the advantages purported to be enjoyed by white persons beyond what is commonly and typically experienced by persons who are not white.

White Norms: Term which may be understood as similar to the term *white privilege*, where the standard of experience reflects the experiences, history, and tradition of white persons.

World Wide Web (WWW): A hypermedia-based system for browsing Internet sites. It is named the web because it is composed of many sites linked together.

Organization of the Study

Chapter One included an introduction to the study, the statement of the problem, the purpose of the study, the objective and guiding research questions, the theoretical framework guiding the study, the significance of the study, and a definition of terms.

Chapter Two provides a review of the literature which includes an introduction

and two major content areas. The first content area provides a background for the study which includes self-directed learning, adult learning styles, the intersection of gender, race, and online dialogue, adult learning perceptions, and barriers to learning. The second content area discusses aspects of ethnicity in the online learning environment, helping to fix and focus the gaps found in the literature to inform the research questions posed by this study. This portion of the review examines the positioning of students of color in online dialogue, the communication of privilege in the online environment, and sensemaking for students of color in the online learning environment.

Chapter Three describes the methodology which was used for the research study, and includes a discussion of the role of the researcher, the research design, triangulation, pilot study, population and sample, data collection and instrumentation, strategy for data analysis, limitations of the study, and human subjects protection and confidentiality.

Chapter Four presents the results of the research for each research question. Processes and results for statistical and qualitative analysis are provided. An ethnographic profile of students who participated in the study is provided. Relationships between ethnicity and gender, ethnicity and age, and ethnicity and computer experience is examined. For open ended questions, representative responses for qualitative data are included.

Chapter Five analyzes and discusses the findings for each research question. Recommendations for further research are woven throughout the discussion for each research question and in conclusions drawn. Although the digital divide was not a part of the research, it was a part of the research journey and is included in the conclusion and recommendations for further research.

Chapter Two: Review of Related Literature

Introduction

The purpose of this study was to investigate the online learning environment in higher education through the observations and perceptions of students of color. The literature review identifies gaps in the online learning experience for students of color in higher education. In the plentiful and prevalent literature and research surrounding online learning in higher education (see for example, Allen & Seaman, 2006; Chaloux & Mingle, 2002), the ethnicity of students is rarely examined. Two major themes for online learning in higher education found in the literature focus on difference studies and best practices. Difference studies between on campus and online experiences span participation, performance, persistence, delivery methodology, instructional design, learning objects, evaluation and learning outcomes, and student and instructor satisfaction. In general, “no significant difference” (Navarro & Shoemaker, 2000; Russell, 1999) has been consistently reported in the literature between face to face and online instruction. The “no significant difference” controversy continues to be debated across topics and technologies (Lievrouw, 2001), and is not a focus of this research since students of color are typically not specifically mentioned in such studies (Manglitz, 2003; Pryce, 2000; Ross-Gordon & Brown-Haywood, 2000). Best practices for the online experience in higher education are actively researched and are under constant construction and reconstruction in the literature, with a myriad of suggestions for best practices in online instruction,

pedagogical issues for instructors, and the use of technology in education emerging from the research and into practice (Keeton, 2004), but typically do not include specifics or best practices for students of color.

Distance learning literature focused on the online environment is popular, with many online academic and organizational websites devoted to sharing the research, such as the Sloan Consortium, “a consortium of institutions and organizations committed to quality online education” (2006), and the Instructional Technology Council, which “provides leadership, information and resources to expand and enhance distance learning through the effective use of technology” (2007). Online learning, an instructional model which serves a growing population of students in higher education, is listed as an important long term growth strategy at U.S. institutions of higher learning (Allen & Seaman, 2006), thus, it is important to solicit and include the perceptions of online students served in order to comprehensively and effectively address the needs of students participating in the online learning environment found in higher education. There currently exists a gap in the literature for the specific inclusion of online students of color. The review of the literature is divided into content sections which provide a background and a focus for the proposed study.

Organization of the Chapter

The background for this study includes self-directed learning, learning styles, the intersection of gender, race, and online dialogue, adult learning perceptions, and barriers to learning. The literature exhibits a renewed interest in self-directed learning (Hiemstra, 2006) due to the typically asynchronous nature of online classes and individual participation in online learning through the use of a personal computer, therefore,

self-directed learning is examined from a historical to a contemporary perspective. Next, learning styles are reviewed from a pre-online perspective to consideration of what contributes to the success of online students today. Then, gender and race in the online environment are examined from the perspective of online dialogue. Adult learning perceptions in the higher education environment are discussed along with the need for new research into adult perceptions of the online environment. Finally, traditional barriers to learning for adult learners are traced, and the notion that online learning and the Internet overcomes these traditional barriers is examined. The barrier of computer experience and anxiety is addressed in particular since the relationship between success in online learning in higher education and computer experience and anxiety is an evolving point in the literature due to the rapidly changing nature of technology used in online learning.

The focus of this study was on students of color participating in the online graduate level learning environment, and the second section of the literature review discusses aspects of ethnicity in the online learning environment. This portion of the literature review opens with a critique of the literature addressing ethnicity in the online learning environment. The review continues with an examination of the positioning of students of color in online dialogue, and goes on to address the invisibility of the communication of privilege in the online environment. Finally, sensemaking for students of color in the online learning environment is explored. Gaps found in the literature were articulated through the research questions.

Self-directed Learning and the Online Learning Environment

Cyril Houle (1961) is credited with inspiring two strands of research about adult

learners: participation and self-directed learning. With Houle as his advisor, Alan Tough pioneered the theory of self-directed learning and adult learning projects in his doctoral dissertation (1967). Self-directed learning continues to be a cornerstone of theory, principles, and practices today for the education of adults (Merriam, 2001), as well as a basic precept for online learning. The trait of being self-directed tops the list for characteristics of successful online learners, and is widely documented in the literature.

Tough's early work with self-directed learning provides a stage for the growing field of online learning and contemporary research in the field of self-directed learning (Brockett & Hiemstra, 1991; Hiemstra, 2006). Recognized as "the leading proponent of research on self-directed learning" (Cross, 1981, p.120), Tough's original research has been well replicated and extended by subsequent research in the fields of online and self-directed learning. Self-directed learning is considered to be the most prominent and well researched topic in the field of adult education (Brockett & Hiemstra, 1991; Garrison & Archer, 2000). Tough (2006) acknowledges the almost limitless technologically enhanced opportunities for self-directed learning being presented by the information age and the Internet, and adds the use of personal computers and the Internet to the mix of nonhuman resources which can be used as planners, helpers, and providers of self-directed learning.

Literature and research in the field of self-directed learning has branched out to include theories, principles, and practices of how individuals learn on their own, attributes of self-directed learners, readiness for self-directed learning, learning plans and contracts, circumstances and the environment within which learners learn, and teaching tools, for both face-to-face and online learners (Caffarella & Merriam, 2000). For the

most part, andragogy and self-directed learning principles are currently considered more as practices for the field of adult education rather than as principles for the education of all adult learners, but due to the individualized and typically asynchronous nature of online learning, adult educators are called on to be leaders and knowledge experts for the integration of andragogy and self-directed learning into the experience of online education for adults (Heimstra, 2006; Long, 2006).

Brockett and Hiemstra (1991) compare research in self-directed learning to find:

There is ample evidence that self-direction is much more than a "middle-class, white" phenomenon. Yet it would be equally shortsighted to go to the other extreme and suggest that the ideas underlying self-direction in adult learning are universally valued by all cultures. Research that approaches self-direction from a cross-cultural perspective could provide some important insights in this regard. It is crucial to understand the interface between self-direction and the social context in which one is operating (pp. 222-223).

A conflicting point occurs in the literature addressing the relationship of self-directed learning within the online environment. Whereas self-directed learning in the online environment focuses on individuals and does not emphasize the value of group perspective and communication that the literature suggests students of color appreciate (Flannery, 1995), online communication within the online environment is supported in the literature as having the potential to foster, promote, and provide a greater perception of group collaboration and community building than is typically experienced in traditional face-to-face classroom meetings (King, 2002; Merryfield, 2001). Further

research soliciting student user perceptions of the online environment is needed, and leads to a discussion of adult learning styles.

Adult Learning Styles and the Online Learning Environment

Adult learners possess individual experiences and unique differences which will be reflected in their ability to learn and in their learning style preferences (Knowles, 1980, 1984a, 1984b, 1989). An adult's personality involves personal feelings, emotions, attitudes, interests, values, self-concept, and motivation. These affective factors influence an individual's level of confidence, feelings of proficiency, willingness to take risks, ability to plan, set goals, and follow through with action. A learner needs a positive self concept in order to maintain the level of confidence necessary to be able to try to learn new things, and any new learning involves risk because it typically encompasses something which is presently unknown. Even self-directed learning plans and projects require a level of commitment in order for the adult to move through the planning phase in order to take action and meet personal learning goals. Adults have preferences for certain types of learning which work best with their individual learning styles, and these preferences extend to the online learning environment.

Learning styles inventories for adults are well established in the literature of adult education, (for a comprehensive review, refer to James & Blank, 1993), and have given rise to critical views of adult learners and assessment practices which take learning styles and factors such as gender and cultural differences into greater consideration (Merriam & Caffarella, 1999; Rose, 1989; Ross-Gordon, 1999). Valuing diversity through consideration of difference in learning styles in the online environment is critically reviewed in the literature (Henderson, 1996; McLoughlin & Oliver, 2000; Wild &

Henderson, 1997) and has recently expanded to include valuing the indigenous knowledge of native cultures (University of Southern Queensland, 2005; Kohala Center, 2005), however, very little research examines the invisibility of white norms specific to the online environment (Manglitz, 2003; Shore, 1997).

Over the past several years, learning styles specifically for online learning have been added to the literature describing learning styles and are widely documented in academic and popular literature, on traditional college and university websites offering online learning, and are even emphasized through marketing on proprietary online university websites. These traits may vary somewhat, but typical listings include:

- Self-directed
- Motivated
- Comfortable with computers
- Able to use e-mail, Internet browser, word processor
- Likes to read and write
- Disciplined
- Independent
- Able to stay on task

Two themes emerging from the growing body of literature surrounding online learning look at the common factors of online learning, learning styles, and characteristics leading to student success in the online environment. One theme focuses on asking experienced educators to share perceptions and observations about what works best for students in an online environment (Schrum & Hong, 2002). The second theme asks the students themselves which characteristics lead to success (Berge & Muilenburg,

2005; Song, Singleton, Hill, & Koh, 2004). Taking student perceptions into account adds relevance to the research. As Ayres (2001) points out in his book advocating authenticity in teaching and learning, in order to be effective educators, we must first determine what we value.

Gender, Race, and Online Dialogue

Dialogue allows people to function socially and helps them make sense of their day-to-day world, however, a problem exists when dialogue which may be taken for granted frames deficit discourse and prejudice. Consider Weitz and Gordon's (1993) research focusing on characterizations of Black women in particular and American women in general among white college students. For the 256 students in the final sample responding to questionnaires, the ethnicity of respondents closely reflected the racial distribution of the general population. Findings include support for the research hypothesis that asking respondents solely about women in general generates images which do not hold for Black women. Findings support the notion that stereotypes are misrepresentative of reality, yet the literature indicates that modern-day dialogue reinforces negative stereotypes for minorities.

Gender differences in face-to-face as well as in online dialogue are widely discussed within the literature, however, Wang et al. (2003) cautions researchers not to overrate gender in studies of online learning since little research addresses the intersection of culture and gender in the online environment. A relevant point occurs in the literature when research supporting findings of conversational stereotyping (Popp, Donovan, Crawford, Marsh, & Peele, 2003) posits that beliefs about speech style are stronger when looked at by race rather than by gender. In this study, Black speakers were

seen as more direct and emotional, less grammatical and more profane, and less socially appropriate and playful than white speakers. Popp et al. share an important observation, “Beliefs about speech and communication style are important because they may function not only to describe ‘what is’ but to prescribe ‘what should be’ in social interaction” (p. 317).

In an online course, aspects of gender, status, race, and physical appearance are greatly diminished (Woods, 2002), however, learners project themselves both socially and affectively into an online environment (Hew & Cheung, 2003), and power relationships may persist (Wang, 2007). Lal (2003) examines the literature for ways in which culture influences online learning and finds little research to report, and Wang (2007) identifies the need for more systematic research in online learning for a culturally diverse global audience as “desperate.” One point made by Lal (2003, p.2) is that the literature does not “get at the perspectives of students...and seek meanings from their point of view.” Have stereotypes migrated into the online environment ? Opportunities should be taken to specifically ask students of color for their observations and perceptions regarding their online learning experience in order to frame a perspective of awareness and develop a picture of the online learning environment from the perspective of students of color.

The depth and richness found in online dialogue is a common occurrence in the literature, and the nature of research which captures dialogue through examination of writing in the online environment means that there is a record of all discussions, providing data for instructors which can be saved for easy access and analysis. The spoken word used as participation in face-to-face classes is replaced by written

conversation in the online environment, creating documented records which serve as both communication and class product. A search of the literature and research surrounding online dialogue reveals that in studies of online learning within graduate level coursework, a focus on students of color can be found within the context of multicultural education, and draws attention to the importance of the online venue. For example, Merryfield (2001, p. 284) raises some issues regarding her experiences with online dialogue in a multicultural education class:

Why was it that the [students] immediately jumped into an online discussion that was frank and expansive about prejudice, racism, and White privilege, topics that teachers resist discussing in the same class on campus? Why did some of the teachers from Asia and Africa say that online technologies helped them participate and succeed in the class whereas, as one Taiwanese teacher said, "These are Western technologies not of our culture"? And why, after some profound discussions and weeks of collaborative work, did many of the [students] feel they did not "know" each other, that their online relationships were not "real"? (p. 283).

The literature surrounding online discussion forums in higher education is rich in emphasis on participants' perceived sense of community of participation within online dialogue. However, in discussing the importance of place of dualistic realities for African American women from the perspective of adult education, Sheard (1994) speaks of the importance of providing adult learners with an "opportunity to become engaged in a critically reflective dialogue regardless of the subject matter" (p. 31), and the literature does not reflect a focus on whether or not the online learning environment and learner

dialogue experiences, outside of multicultural and equity class structures, reflects the perspective of students of color.

Adult Learning Perceptions and the Online Learning Environment

Situational factors frame the real and perceived learning environment within which the adult learner thinks, speaks, and acts as well as the environment and life situation outside of the classroom. Research which acknowledges the unique perceptions and learning orientations of adult learners in online higher education is one way of listening and paying attention to cognitive and situational factors which add to the body of knowledge about how, why (or why not), and when adults learn. However, the literature concerning the graduate student experience in higher education rarely reflects the voices of students of color (Manglitz, 2003; Pryce, 2000; Ross-Gordon & Brown-Haywood, 2000).

The adult learner's socially constructed world both inside and outside of the classroom is the subject of Kasworm's (2003) research which explores the question, "How do adults describe their learning engagement in the classroom and its relationship to broader life involvements?" (p. 82), and examines "the varied tensions of adult living and learning and the unique interactions of collegiate learning" (p. 86). Kasworm's (2003) research creates the label "knowledge voices," and identifies meaning perspectives for adult learners: the entry voice, the outside voice, the cynical voice, the straddling voice, and the inclusion voice" (pp. 84-87). These voices frame student interactions with aspects of the learning experience, and with students' self and social constructions of themselves as students (pp. 84-87). Demographics including ethnicity were collected but were not a focus of the study, and open a door for further research.

Defining the knowledge voice labels as operational constructs is an important contribution to the research for adult learners in higher education because it articulates terminology to facilitate further discussion on the topic, and adds to the research which studies cognitive and situational factors influencing the social role actions of adult learners as students. Framing the research findings as “voices” is also important from a constructivist perspective, “ways of speaking become central . . . we speak in order to maintain, reproduce and transform certain modes of social and societal relationships” (Shotter, 2003, p.133). When students and researchers can pin questions and concepts onto an available label, further discussion and critical comment on the topic is enabled.

The online environment requires new labels in order to better articulate the reality experienced by online learners. New techniques are needed to adapt research to online environments (Kozinets, 2002), and new terms are emerging to help articulate the transition. Kozinets coins “netography,” or ethnography on the Internet [as] a new qualitative research methodology” (p.63), and I have suggested *quale*-tative research as a new term specific to the qualitative study of the Internet-based environment sometimes referred to as e-learning. “Netography” used in research with online consumer groups is a method which “provides researchers with a window into naturally occurring behaviors” (Kim, Kim, & Kim, 2005, p. 3). Although netography is currently focused on market research and public online forums, an important observation made through the use of netography about online vocabulary translates well to the environment of education and curriculum: online vocabulary can express needs. These could be consumer or student needs, and due to the tremendous growth of online classes in the higher education environment, a window into naturally expressed needs could provide needs based

assessments for curriculum design. Kozinets contends that the online environment is a “social-cue-impoverished” community, requiring “rigorous investigation” (p.62).

The research presented in this dissertation provided an investigation into the online learning environment focused on students of color, a perspective which is currently lacking in the mainstream research in online learning for adult learners in higher education. Social construction and communication of ideas through research encourages dialogue across issues and disciplines, such as searching for and reporting findings for students of color. “Activity framed in a particular way – especially collectively organized social activity – is often marked off from the ongoing flow of surrounding events by a special set of boundary markers” (Goffman, 1986, p. 251). As the classroom frames the learning experience for the adult learners in Kasworm’s (2003) study, the online environment frames the experience of the online learner.

As the knowledge voices in Kasworm’s study help frame and define “being a student, the college experience, and its impact” (p. 84), I have tried, through this study, to better understand and describe the ways in which students of color frame the online environment. Kasworm’s identification and labeling of the academic voices of adult learners helps acknowledge the cognitive, situational, and affective factors effecting the learning of adults. Examining the perceptions of adult learners of color in the online environment is another important area of research to consider as the population of online adult learners in higher education grows, and interest in the epistemology of this student group increases.

Barriers to Learning

The examination of barriers to adult participation in educational activities is

broadly covered in the literature. Merriam and Caffarella (1999) identify, explain, and differentiate between studies of adult participation, beginning in 1965 with Johnstone and Rivera's landmark study, *Volunteers for Learning* (pp. 46-49), and the National Center for Education Statistics (NCES) does a thorough job reviewing empirical studies of barriers and participation (1998, 2002). Some individuals seeking higher education cannot be easily serviced by an institutional setting. Participation by adult learners in graduate level online learning coursework has grown dramatically over the past ten years due to the added flexibility and advantages offered by online learning which can happen anytime, anyplace, and so overcomes some of the traditional barriers to learning by offering choices of participation from home and work at times which meet personal needs, schedules, and family lifestyles (Belcher, 1997; Cain, Marrara, Pitre, Amour, 2003). Living in rural and remote areas, varying abilities, and health concerns are some of the historic barriers to participation in learning that are being ameliorated by technology.

In today's higher education environment, technology is removing the historical barriers of time and place for learning activities, calling into play a renewed interest in self-directed learning and learning styles, which have long been mainstays of adult education practices. Traditional face-to-face learning experiences are being supported, supplemented, or supplanted by personal access to the Internet by individuals, and by more self-directed knowledge acquisition through online learning opportunities. Online higher education provides adult learners with multiple learning format options for graduate studies, and greater access to academic learning opportunities through the use of personal computers and Internet technology. Distance learning is an instructional model which began with correspondence courses and students relying on the U.S. mail as a

communication device. Today, distance learning models rely on the Internet, creating new and different barriers to learning. Some barriers associated with online courses compared to traditional on-campus instruction include trouble with technology and computer anxiety as some of the more commonly mentioned problems (King, 2002).

Technology

Despite the rapid growth, mainstream presence, and highly touted ease of access to higher education through online learning, there exists a need to more closely examine the obvious, and the literature reflects two sides to the platform of online learning: the execution of the online learning experience is both enabled and disabled by technology. Though the advantages of online learning due to ease of access are avidly discussed in the literature, a research trend in educational technology focuses on whether or not access, a traditional barrier to learning, is improved by the use of technology, or if a different type of gap is being created (Kasworm & Londoner, 2000; Rose 1999a). Commonly called the digital divide, a technology gap exists in higher education due to disparity in technology ownership and access (Hamilton, 2001; Roach, 2000).

Despite widely held beliefs that everyone in the U.S. has easy access to computers and the Internet, many rural and remote areas still lack personal computers or computer and Internet access, or access to libraries with computers and Internet access, and both rural and urban underserved students and institutions have frequent trouble with technology due the fact that technology changes more quickly than it can be upgraded or replaced (Hiemstra, 2006; Kasworm & Londoner, 2000). Thus, the lack of computer and Internet access by underserved students and schools and the lack of resources for institutions to implement instructional technologies or to replace technology which

quickly becomes obsolete is a problem of concern.

Technology as a barrier to learning which negatively impacts minority learners (Benson, 2007; Clark & Moore, 2007) can be found in the literature discussing historically Black colleges and universities (HBCUs). On one hand, The United Negro College Fund (UNCF) articulates a mission aimed at educating the workforce for the global economy and playing a vital role in minority higher education and reports that graduation rates for African American students at HBCUs are higher than for African American students at majority colleges and universities (UNCF, 2006). On the other hand, studies show that historically Black institutions, though exhibiting an upward trend in educational technology adoption (McHenry & Person, 2007), still fall behind other institutions of higher learning in developing online learning programs (Howard University Distance Learning Lab, 2007; Roach, 2000).

While technology removes barriers and brings access and learning opportunities to many, the digital divide impacts institutions and populations of potential online students not having adequate technology access and resources. As institutions serving students of color grow their instructional technology courses and programs (Hamilton, 2001; Roach 2000), it is prudent for research to focus on the experiences and perceptions of students of color regarding the online learning environment in higher education, and begin to add this important stream of knowledge to the river of mainstream literature surrounding technology and online learning in higher education.

Computer Anxiety

Assumptions of the technological ease and ready accessibility of online graduate level coursework is posing some additional, non-traditional barriers to learning which

may not yet be adequately addressed for online learners. Differences in computer skill levels or computer familiarity as well as cultural acclimation to technology may be creating an anxiety barrier to learning for online learners who are less expert than their peers with computer use, but who wish to participate successfully in an online learning experience at the graduate level. Throughout my graduate level work I have personally and repeatedly been met with assumptions of computer access and expertise from instructors and peers alike, and have been the student with the older and incompatible computer at home as well as the student with the simple presentation following those with higher levels of expertise and access to more sophisticated technical tools. Thus, I can speak to the existence of computer anxiety and gaps in technological access and expertise between students participating in graduate level online studies from first hand experience.

Student access to technology, comfort level with technology, and competence and confidence with computers may not be equal for all graduate students. Differences between novice and experienced Internet users, and instances of student stress with online coursework due to expertise with computers and the Internet is an issue for some students at the graduate level (Boyer, Maher, & Kirkman, 2006; Kirkman, Coughlin, & Kromrey, 2006). Lack of competence and confidence with online learning software is cited as a reason for attrition in online degree programs at the graduate level (Willging & Johnson, 2004), and for anxiety in college students with diverse ethnic backgrounds (McInerney, March, & McInerney, 1999). In an international study for graduate students across ten countries, researchers found that each country possessed a unique culture dependent model of computer anxiety (Rosen & Weil, 2006).

Latinas and Latinos are considered the most rapidly growing minority group in the U.S. today, yet little is known concerning how this population learns in the online environment (Fox & Livingston, 2007). Huffman Leyva (2005) asserts where “white students have been programmed to use computers since they were very young . . . Hispanic students have not been acclimated to using the computer”(p. 35) and found that one of the most apparent barriers to online learning for Latinas in community colleges was a lack of higher-level technology skills in computer assisted learning (p. 142). A lack of similar studies for Hispanic graduate students and other minority groups reveals a gap in the literature which is reflective of the lower levels of participation in graduate studies by minority groups.

Ethnicity in the Online Learning Environment

There is a growing interest in ethnicity, culture, and learning styles (Cassity, 2005; Wang , 2004) due to the global accessibility of online learning. It is important to examine student perceptions about the online environment since online participation is removed from the classroom environment and thus removed from the typical cues of face-to-face engagement instructors normally rely on, such as nodding heads or blank stares. Rose (1989) finds that adult learners have the most to gain from nontraditional education with its “outcomes orientation, concern for process [and] . . . experiential learning” (p. 219), but implementation of these practices into the online environment is still under discussion and examination.

For example, in building a participatory research model, Elden & Levin (1991, p. 130) note the existence of an “individual and fragmented” framework implicit to insiders and the “theory based” framework of outsiders. We can extrapolate this notion to

consider the individual and diverse perspectives of students and instructors constructing a “new shared framework” together within the educational environment of an online course, and include the possibility of a privileged “outsider” curriculum perspective which may overlook the perspectives of students of color. Is there a positionality of white privilege embedded within online learning which has been overlooked?

Education is a social practice (Lauzon, 1999) and tends to reproduce culture. This fact makes the notion that the online environment is dominated by Western values and information (Joo, 1999) a problem. Including minority perspectives in curriculum such as in multicultural studies, rather than rearticulating the way in which minority perspectives are represented (Singh, 1994), and reproduced in mainstream online learning in higher education draws attention to the fact that minorities in higher education are seldom a focus in the mainstream research.

When examining the social construction of white and minority learners, we find that race is a social construction which divides people into imaginary distinct groups (Smedley, 1993), which are typically white or minorities (everyone who isn’t white). Minority groups are an important population served by graduate studies in higher education, which includes an ever increasing amount of online coursework in the graduate curriculum. Thus, considering the possibility of overt and covert aspects of cultural racism in the online environment is important for practitioners in the higher education environment (Brookfield, 2003; Brown & Cervero, 2000; Johnson-Bailey & Cervero, 1996; Manglitz, 2003).

A pertinent gap occurs in the literature when the position of white privilege is not questioned in the research examining who has access to technology, the training to use it,

and perspectives about it beyond the provision of simple demographic information. Care must be taken to examine marginalization in the online environment (Wild & Henderson, 1997). Henderson (1996) asserts that instructional models cannot be culturally neutral. Whiteness refers to cultural practices which are unmarked and unnamed (Hunter & Nettles, 1999). A central theme in the literature of online learning is that virtual learners are more culturally homogenous due to the neutrality of participation in virtual space, however, the work of Chase, Macfadyen, Reeder, & Roche (2002) demonstrates that online learning is not a simple, culturally neutral space. Their analysis of 424 postings across six course assignments in one course by 23 students, five online facilitators, and two course moderators over a period of 12 weeks used discourse analysis and ethnographic analysis to identify major themes and clusters of communication problems. A focal point in the Chase et al. research finds that the online learning environment has a reflective rather than an invisible culture. For the course observed, the researchers found that online course culture is a co-constructed environment which is overtly and covertly maintained as a product of its creators.

McLoughlin & Oliver (2000) provide paradigms based on Henderson's model (Table 1) and explain a way to consider curriculum design from three different perspectives for minority students: the inclusive or perspectives approach imports the social, cultural and historical perspectives of minority groups, but does not challenge the dominant culture and is therefore cosmetic; the inverted curriculum approach attempts to design an instructional component from the minority perspective, but fails to provide the learner with educationally valid experiences as it does not admit them into the mainstream culture; the culturally unidimensional approach excludes or denies cultural

diversity and assumes that educational experiences are the same for minority students as they are for others.

Table 1

Existing Instructional Design (ID) Paradigms and their Limitations

ID Paradigm	Definition	Limitations
Inclusive or perspectives	Acknowledges multicultural realities, driven by equity and social justice	Soft multiculturalism Inclusion of the exotic Tokenism
Inverted curriculum approach	Conceptualizes society as unequal Minority perspectives	Does not cater to cognitive needs Does not support equity in learning outcomes
Culturally unidimensional	Cultural minorities are invisible Culture is presented as homogenous	Dominant cultures only are acknowledged Culture is represented as peripheral

Adult learning styles and preferences are affected by cultural and social influences as well as by personal preferences, and socially reconstructing white privilege by failing to examine it is a problem under examination (Brieschke, 1998; Lewis, 2003; Manglitz, 2003). In today's educational climate, cultural diversity is promoted as a strength rather than a weakness, and the problem becomes how to infuse this notion into mainstream American education and social consciousness: how to move thinking of multiculturalism from a class in multicultural education into the mainstream higher education curriculum, which includes the ever increasing presence of online learning.

Learning is a personal process, taking place within a socially constructed setting. A study of curriculum practices in online learning calls for educators to watch carefully for normalized practices which absentmindedly work to repress the identity of students of color. Questioning familiar things brings insight (Bateson, 1994). A focus on the expressions of self within context allows "curriculum development . . . which celebrates the uniqueness of each individual person, text, event, culture, and educative moment" (Slattery, 1995, p. 142).

Sarlin (2005) reports that prior research has not considered participant attitudes toward diversity in the online environment. Although the literature provides some evidence of difference studies reporting results for ethnicity by examining specific online classes paired with students' sense of community in an online learning environment (Rovai & Gallien, 2005; Sarlin, 2005), no clear correlation between race and the outcome variable of interactivity (examined as attitude) has been found (Sarlin, 2005). Difference studies in the literature are typically limited to individual class to class comparisons and focus on within class observations reported by the instructor, such as Rovai & Gallien's

(2005) finding that group homogeneity and sense of community is enhanced for students of color by blending some face to face activity into the online learning model. The literature demonstrates that instructor observations can be useful for understanding the perspectives of students of color. For instance, in a qualitative assessment of interactivity and self-reported attitude in a multicultural class for graduate students, Merryfield (2001, p.296) observes the differences between a face-to-face discussion in class and an online discussion when she asks the class how they made sense of the differences in discussions online and in class:

I got blank stares and some nervous laughter as a response. People did not want to talk about it [face-to-face]. But, that night on the listserver messages flew back and forth about why people act differently online than they do face-to-face. The four who had noticeably different interaction patterns had diverse explanations. One woman wrote of her painful shyness in large classes, and two others explained how they felt embarrassed by their problems in speaking English or understanding others' English. The other person wrote that she could say what she thought through the computer because it was "easier to fit into the conversation" and "express myself." This discussion became a significant learning experience for all of us as we realized it would probably never have taken place without electronic technology.

Mainstream education and research views race as a marker for “other” and not for whites; white is seen as neutral and as the norm (Manglitz, 2003). Clearly, a focus on adult learners of color is missing from the literature (Pryce, 2000). Online learning in a

self-directed learning environment is commonly considered race neutral due to the individuality of the participation environment (Bray, 2006), however, “adults learn best when their experience is acknowledged, when new information builds on their past experience, and when curriculum content is meaningful, problem-oriented, and practical” (Caffarella, 1994, pp.24-25). Therefore, it is important not only to include, but to focus on students of color in the online learning environment.

Positioning of Students of Color in Online Dialogue

The study of online dialogue has risen in response to the phenomenal growth of online learning. While much research exists on the topic of online learning communities and the innate global nature of online learning (Lea & Nicoll, 2002), few studies focus directly on the minority participant and their individual observations and perceptions about online coursework. Studies of minority students participating in graduate level online coursework are typically confined within the milieu of multicultural or equity studies, and may work to normalize the online learning environment to a white “default” majority (Kolko, Nakamura, & Rodman, 2000). In a comprehensive overview of individual differences in online instruction (British Educational Communications, 2003), differences based on gender, prior content knowledge, computing skill levels, and cognitive styles are commonly addressed in the research on online instruction, but differences based on ethnicity is not. The intent of this research is that by requesting and reporting responses from students of color regarding their perceptions of online learning, some ground will be gained to counter the racial invisibility (Kolko, Nakamura, & Rodman, 2000) which currently exists in the literature examining the online learning environment (Aiken, Cervero, & Johnson-Bailey, 2001).

Student participation in meaning construction in the online environment varies based on independent educational goals (Rogers, 2006). Applying principles of andragogy to the online environment suggests the advantages of self directed and more independent learning options. In fact, Rogers' (2006) research finds that levels of participation may vary due to personal communication, learning styles and preferences, personal comfort and needs levels, and variations in personal assessments of what is being requested and needed by the instructor. By specifically examining the experiences of persons of color in the online environment, there is an opportunity to better understand "how we unknowingly engage the universality and norms of whiteness within our research and practice" (Manglitz, 2003). For the purpose of this research study, this complex subject was simplified to discover if the online environment provides a place where students of color can more easily express opinions or critiques about assumptions of white norms as opposed to opportunities provided by a face-to-face classroom environment.

Conversation provides the interaction among students and instructor, and online dialogue allows learners the time to reflect before responding (Harasim, 2000). Time for reflection has traditionally been found to be appreciated by adult learners (Knowles, 1980). Students may self check and become more articulate when writing their thoughts since their words may be pondered at leisure, and once posted, responded to by the entire class, something that would never happen in a traditional face-to-face classroom. The ability to have a record of everyone's work for review, including the instructor's online interaction, is seen as a benefit for both online instructors as well as online students (Merryfield, 2001).

Online dialogue provides the instructor with feedback as to student perceptions

and understanding of a concept. Are they getting it? If not, the instructor may intervene online to guide the discussion back onto the planned track, or the summative feedback may allow the instructor to move in the direction of interests expressed by the students. On the other hand, Kasworm & Londoner (2000, p. 237) note that “digital connectedness does not necessarily create interaction,” and considers the “lack of diverse stimulating engagement” to be a problem in web-based instruction, and more research exploring the dialogue of learning in an online environment is called for (Paulus & Roberts, 2006).

Are students more comfortable online than in a face-to-face class when critiquing universalized assumptions such as whiteness (Maher & Tetrault, 1997, 2000) or raising issues of importance specifically to students of color? Are these issues considered important by students of color in the online learning environment? Online dialogue frames and provides a writing surface for the “talk” found in an online learning environment. This surface may benefit learners who do not normally participate in class discussions by leveling the playing field (Creed, 1997). In fact, one research study indicated that an anticipated benefit of online discussion is that it empowers students who are less verbal in class discussions (Killian & Willhite, 2003). Scenarios which place theory into practice through online communication and talk-as-text task the online instructor with designing questions and guided discussions which provoke thoughtful dialogue and bring e-learners out of an asynchronous disconnected state and into a connected and collective consciousness. Understanding the online student experience can be compared to the way Caffarella and Merriam (2000) frame situated cognition, “one cannot separate the learning process from the situation in which the learning takes place (p. 59).

Communicating Privilege in the Online Environment

Particularly disturbing in the literature is the notion of unacknowledged white privilege informing skill and experience levels which exist behind the dialogue of online learning as discussed by Limburg & Clark (2006):

Patterns of online communication mirror those in ground classes: white privileged students usually speak (write) more prolifically, forcefully, and with greater confidence, whereas students of color, female students, and working-class students tend to speak less, more deferentially, and with greater caution (p. 49).

Silence may sometimes be misconstrued by peers and instructors to mean consent, agreement, or even lack of interest when in fact language fluency, unwillingness to argue, or cultural attitude may be contributing causes of silence. Communication strategies which rely on silence are unrealistic representations of how human beings learn and interact in the real world (Lea & Helfand, 2004). Persons of color must learn to use their voices in authentic settings (Delpit, 1995), and in higher education, in our current technologically oriented culture, this setting includes the online environment.

An examination of the literature for research pertaining to online dialogue in general, and adult learners of color in the environment of higher education in particular, helps fix and focus the main ideas of this study to the literature. Other than inclusion in some retention and persistence data, students of color in higher education tend to be invisible in the literature. Though a tremendous amount of data report the growing participation in online education at the undergraduate and graduate level in higher education, minimal data reflect the minority student experience in online higher

education. Online learning is still too recent a phenomenon to have its processes classified as traditional; what happens today in online learning will contribute to what will be considered in the future as a traditional model. If educational technology, which includes online learning, can be considered as a system of social practice (Franklin, 1990), how does the culture and experiential learning which students of color bring to their learning experience inform the future development and presentation of the online learning model?

The literature examining online learning explores the social, cultural, and interpersonal presence of the online learner (Clague, 2003; McIssac & Tu, 2002; Shin, 2002; Wegerif, 1998), though none of the points are directed specifically toward students of color. Literature examining assumptions of white privilege in the higher education classroom find whiteness to be the unrecognized norm (Brown, Cervero, & Johnson-Bailey, 2000; Maher & Tetrault, 1997, 2000), and English as the accepted global language and platform for online courses (Lea & Nicoll, 2002). Consider an observation made by de Castall, Bryson, & Jenson:

Most educational technology design and development . . . has been predicated on the uncritical simulation of culturally valued knowledge, roles and practices. These traditionally imitative practices - thinly veiled be-like-me injunctions mimic the cognitive styles and work practices of recognized 'experts' (2002).

The experts in higher education are instructors, but there exists a lack of instructors of color (Cole, 2003). Thus, a paradox exists: learning environments are enhanced by diversity (Hurtado, Milem, Clayton-Pederson, & Allen; 1999); people of color are

underrepresented as instructors and as graduate students in higher education (Turner, Myers, & Creswell, 1999). Only about 5% of U.S. instructors are African-American, and only about 2% are Hispanic, whereas about one fourth of U.S. higher education students are students of color (Southern Regional Education Board, 2007).

Students of color are seldom identified and differentiated beyond demographics in the growing body of literature surrounding online learning (Aiken, Cervero, & Johnson-Bailey, 2001). In a synthesis and critique of the literature examining whiteness and white privilege in education, Manglitz (2003) challenges educators to be aware of “what is missing in the literature” (p. 121). Studies which focus on the observations and perceptions of students of color in the environment of online learning are needed in order to give a more comprehensive view to the growing body of literature surrounding online learning.

Sensemaking for Students of Color in the Online Learning Environment

The proposed program of studies thought of as curriculum sends a potent message about what is valued (Gourley, 2003). Slattery argues that curriculum may represent “an interpretation of lived experiences” (1995, p.77), however, Gourley observes that the online learning curriculum may be “culturally myopic” (2003, p. 127). Taken for granted ways of making sense of race exist within the contemporary culture surrounding online learning and minority participants. Race, an artificial, social construct which has divided people from historical times to the present day, is embedded into mainstream American consciousness. It continues to reproduce itself and inform modern social constructions in daily life as well as in American education systems which include online learning. Non-issues of ethnicity frame contemporary educational perspectives and practices, and

promulgate a covert educational agenda which has been infected and reflected by historical, socially constructed racial frameworks which “default” to reflect the white majority (Kolko, Nakamura, & Rodman, 2000).

Can online students participate equally so that no one is silenced or privileged? de Montes, Oran, and Willis (2002) pose this question in research which articulates the notion of an invisible system which gives privilege and racial dominance to whites in an online graduate level class. Further research suggested by de Montes et al. includes analysis by online educators and course developers of personal biases and assumptions in interactions with online students. This suggestion helped guide the structure and development of research question three presented in this study.

As the student population in the U.S. is growing more diverse, the teaching population is becoming more white (Sleeter, 1993), thus, the only way to reverse institutional racism is to draw more teachers of color into the teaching profession. Sleeter suggests that the best solutions to racism “will come from multiracial coalitions in which white people participate but do not dominate” (p. 169). Reflecting this model, my research study includes white voices, but is focused on students of color.

Chapter Three: Methodology

Introduction

The purpose of this study was to investigate the online learning environment in higher education through the observations and perceptions of students of color. Since little research has been directed toward students of color in the online environment of higher education, this study explored the intersection of the online learning environment and students of color in higher education using research questions to provoke inquiry, provide direction, and create a space for looking specifically at the observations and perceptions of students of color. It was not a study focused on differences between students of color and white students; this study sought to learn more about the online experiences of students through the use of a survey, since there is little available research for this population of students and their participation in the online environment at the present time. This study examined variability among graduate students of color through the analysis of participants' observations and perceptions regarding particular aspects of their online learning experience using data collected in response to a survey. The study followed a nonexperimental, exploratory design using gaps found in the literature to guide and frame the research questions.

Research Questions

1. What is the nature of the relationship between ethnicity and the variables of gender, age, and self-reported computer experience?

2. To what extent does the online environment provide a place where students of color can more easily express opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom environment?
3. If persons of color [students or online instructors] could offer online learning instructors and designers advice about providing an online course environment which fully considers the voices and experiences of persons of color, what would it be?

The increase in online learning in the higher education environment has created a virtual community of online learners who interact with each other without being together physically. Participant observation is an important part of qualitative research; the online setting within which online learners operate creates a need for research which explores online learner participation within the online community they've chosen. This creates a challenge for researchers: how to perform research reflecting realistic lived experiences for participants in an online environment. Thus, the study of students of color in an online setting presented two particular challenges to myself as a researcher: the absence of close proximity to students and classrooms to which a physical observer would have access, and how, as a white researcher, to work with racial and ethnic categories in research.

Role of the Researcher

My role as a distance learning administrator includes collecting and reporting on a variety of distance learning data. As I collected these data, I noticed that the information being collected about distance learners did not typically include demographics, and did not reflect aspects of distance learning students beyond enrollment and completion. As I became increasingly interested in knowing more about distance learning students, I observed that using online technologies to collect qualitative data for online coursework

would be an interesting addition to the research, and suggested *qualitative* as a new term specific to the qualitative study of the Internet-based online learning environment sometimes referred to as e-learning (Boyette, 2006). An interest in distance learning students and information which is currently reported about them led me to design my dissertation research to reflect a more in-depth look at graduate students participating in the online learning environment, and the lack of research specific to students of color noted in the literature inspired the theme and title of the study.

How are differences between a white researcher and minority participants ameliorated? Based on the literature, there would be no clear advantage added to the research by overtly drawing attention to my ethnicity as a researcher. According to the literature, racial and ethnic differences between researchers and research participants can be a source of emotionally charged anxiety and assumptions and may even affect what participants vocalize about racial topics (Gunaratnam, 2003, 2006; Twine & Warren, 2000). On the other hand, Krysan & Couper (2006) find mixed support for their hypothesis that researcher presence effects negative research participant attitudes or censoring.

The literature supports the notion that researchers with the same ethnic background as the research participants have the advantage of an emic perspective and an insider's empathy and shared ways of knowing, understanding, and interest (Hillier & Rachman, 1996; Leininger, 1991) when performing field research. However, the impact of race and ethnicity is not predictable (Gunaratnam, 2006), and methodological issues dealing with race and the research process raise complications and issues which remain unresolved (Twine & Warren, 2000). Though shared racial identity is widely assumed to

promote effective communication between researcher and participant (Rhodes, 1994), race-of-interviewer effects (Rhodes, 1994; Twine, 2006; Twine & Warren, 2000) are added to social class, age, and gender as variables which may influence the research process (Edwards, 1998).

Research Design

This study examined variability among graduate students of color through the analysis of participants' observations and perceptions regarding particular aspects of their online learning experience using data collected in response to a survey (Appendix A). The study followed a nonexperimental, exploratory design using gaps found in the literature to guide and frame the research questions. One way to come to know the perceptions of students of color about their experiences in the online learning environment is to solicit observations about their experiences. Survey methodology has been used for analysis of perceptions of ethnic minorities (Berthoud, 2006); a questionnaire is a research method which can be used to collect and report personal opinions and cultural knowledge (Spickard, 2006). Edwards (1998) notes a tradition of survey research as a method which allows the researcher to help control for interview bias and will help to ameliorate the influence of researcher ethnicity discussed in the introduction to this chapter.

This descriptive research study described the current state of affairs (Salkind, 2000) for a sample of graduate students of varying ethnicities who have participated in the online learning environment in higher education. Data analysis in this study was presented within the context of inquiry, exploration, and discovery, and does not imply a confirmation of findings about the participants in the study (Kromrey, 1993). This study

examined responses from students of varying ethnicities and was not designed to be a comparative study of difference between white students and students of color. This research specifically sought out students of color as the focus of the study. This descriptive study provided knowledge about a specific sample of students who have participated in online learning at the graduate student level using tools found in the online learning environment in the form of e-mail and an online survey for the research process. Through the survey, a topic was introduced to participants and the participants' response used to provide data about the topic. Statistics were used to examine, reflect, and describe variability for students of color who have participated in online coursework. Statistical analysis of data was accomplished using the SAS software program. Some data and results were described using a narrative format. Open ended survey questions provided qualitative data which was analyzed for themes. This research examined and described relationships between ethnicity and gender, age, and online experience, and provided personal reflections from survey participants about online participation.

Using a model first proposed by Bretz (1983), Henri (1992, p. 128) operationalizes a communications model by defining explicit and implicit interactions as a three step process: communication of information, a first response to this information, and a second answer relating to the first. Synthesizing Henri's model, Hew and Cheung (2003) provide a summary describing Henri's interactivity dimension (p. 247) and the specifics for this process (Table 2). Based on Henri's model articulating explicit and implicit interactions for analysis of statements, survey questions used in this research study were designed to contain an explicit interaction for a direct response, an implicit interaction for an indirect response, and an open ended question request for an

independent statement as a short answer or story response. Short answers and story responses were used to identify themes in the survey data and to provide a place where participants could add comments which had not been specifically addressed in the survey questions if they chose to do so.

Table 2

Model for the Three Step Communication Process

Method	Indicator
<i>Henri's Interactivity dimension (1992)</i>	This model distinguishes between interactive versus non-interactive and explicit versus implicit interaction. Explicit and implicit interactions are defined as a three step process:
Unit of analysis: thematic unit	<p><i>Explicit interaction</i> Direct response (statements responding to a question by name). Direct commentary (statements about someone else's message by name)</p> <p><i>Implicit interaction</i> Indirect response (statements that respond either to a question without referring to it by name) Indirect commentary (statements taking up a previously expressed idea, but without referring to the original message by name)</p> <p><i>Independent statement</i> (statements that are not connected to others that have been previously expressed in the online discussion)</p>

Four demographic variables were collected through the survey: ethnicity, gender, age, and online experience. For the purposes of this research, online experience is defined by class participation and by comfort level with computers. The variable of comfort level was operationalized into three categories (Table 3).

Table 3

Comfort Levels Used for Variable of Online Experience

Level	Description of Experience
Novice	Limited computer experience going into graduate studies, limited Internet use in personal and professional life; often needed help with online assignments and activities
Comfortable	Often used the computer in personal and professional life before going into graduate studies, therefore confident with online assignments and activities; rarely needed help with online assignments and activities
Expert	Frequent and sometimes advanced computer use in personal and professional life (ex: Photoshop, creation of personal or professional Web page or presentations) before going into graduate studies; helped others or took a leadership role in groups with online assignments

Triangulation

Inclusion of White Students' Voices

I triangulated the study with white students and with online instructors rather than limiting the study strictly to variability of students of color. In order to determine if challenging or critiquing assumptions of white norms was more or less important to white students, ANOVA was used to examine responses from both white students and students of color to survey questions 1. and 2. (Appendix A). This study was designed to focus on students of color and was not intended to be a comparison study between students of color and white students. In response to the literature regarding white norms addressed in Chapter Two, white student responses were included in this part of the study in order to observe how whiteness may operate by examining more or less interest in challenging white norms by white students in the online environment.

Including white students in the research results was not intended to demonstrate difference, but rather serve a purpose to shed light on any issues of race through a demonstration of variability in more or less willingness to discuss race online, or finding issues of race to be more or less important. A justification for triangulating the study with responses from white students is evident in the literature when Dolan (2006, p. 137) observes, "Scholars face tough questions when deciding how to investigate a phenomenon which is not accustomed to 'seeing itself seeing'." Including responses from white students did not provide a white canvas onto which I painted a study of minority student perceptions, rather I had the chance to observe performance of whiteness as reflected by survey responses. Analysis of white student responses provided a more complete analysis of survey questions which asked participants if challenging or

critiquing assumptions of white norms within online class discussions was important to them, and provided participants with an opportunity to share opinions regarding the extent to which the online environment provides a place where students may more easily express opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom. Since, as Dolan notes, the way white invisibility works remains hidden (p.137), triangulation accomplished by adding white students' perceptions about online learning was useful in providing a complete analysis for research question two.

Inclusion of Instructors' Voices

Seeking the perspective of instructors teaching online provided an additional perspective to that of students, and added another facet to the data collected for research question three. Observations and perceptions about the online learning environment were collected using the same survey questions, but tuned to the perspective of the online instructor (Appendix B). One hundred instructors of varying ethnicities who regularly teach in the online environment at institutions of higher education in one southern state were purposely selected using public university information identifying online instructors, such as class schedules. Online instructors were contacted and provided with the survey via e-mail. A study of instructors was not planned for this study; since this study was about students, instructors' responses were reported only through their descriptive comments and stories shared in response to open ended questions. Only responses gathered from instructors of color were reported in this study. The instructors' responses to the open ended survey questions supplied descriptive data and provided an illustrative background for the research from the perspective of instructors of color.

Pilot Study

After obtaining appropriate IRB approval, a pilot survey using e-mail and Survey Monkey TM was sent to seventy doctoral students and to twenty online learning instructors of mixed diversity from a major metropolitan university for feedback. The purposeful sample of students receiving the pilot survey was selected from doctoral students enrolled in Adult, Continuing, and Higher Education doctoral degree programs. This sample was selected because it contained demographics similar to the university overall and because the College of Education offered the greatest number of online courses at the graduate level during the Fall 2007 semester when the survey was distributed. The instructors were purposely selected from instructors teaching online during the Fall 2007 semester using public university schedule records. The intention of the pilot study was to test the survey questions to ensure that the survey questions were structured in a way that was understandable to participants, to improve the survey questions in order to increase participant understanding of the focus of the questions, and to ensure that the survey questions returned data that addressed and answered the research questions.

In designing this study, I consciously made a personal commitment to take a learning posture, to be open to potential criticism regarding the survey tool I used to collect the data, or toward any aspect of whiteness I consciously or unconsciously brought along with me to the research. My goal in pursuing this topic was to learn more about students of color through the research, with a goal toward making the online learning experiences of students of color more visible. All survey responses to the pilot study were anonymous as set up and collected through Survey Monkey TM. For the pilot

study, in addition to a request to complete the survey, an e-mail invitation was extended to student and instructor survey participants to contact the researcher and offer face-to-face feedback. Although no survey participants wished to meet face-to-face, I did receive comments via e-mail from students and instructors. I appreciated the responses using e-mail as I was actively using the online tools of the distance learner (electronic communication via e-mail) to hear from distance learners and instructors about distance learning. Thus, I felt immersed in the online environment. During the feedback process, survey language was improved, and survey questions adjusted to increase understanding of the question being asked.

I received a 68.8% rate of return from the pilot surveys sent to students. In addition to the survey responses, I received only one additional comment from the students, and the same comment was received from 16 responders. This comment was a concern about completing the survey because the responder was not a student of color. This concern, which white students took the time to send to me via e-mail in addition to the survey, addressed the question posed by survey question two: Are white students interested in critiquing white norms? My intent was not to focus on white students; however, I found it relevant to concerns expressed in the literature review as well as relevant for adding triangulation to the study to see if white students responding to the survey were interested in critiquing perceptions of white norms in the online learning environment. Since there had not been an effective way to select for ethnicity prior to sending out the pilot survey, I decided that allowing the voice of white students for research question two in the final survey would be of benefit to investigate the issue of white perceptions of white norms.

The demographics for student surveys completed for the pilot study indicated responses from 6.3% African American, 31.3% Hispanic, and 62.4% White students. Since the lack of African American students in higher education is a problem noted in the literature, I was not surprised by these percentages of responses. The number and diversity of responses was adequate to move forward with the study.

Population and Sample

This study considered the population of students of color who have participated in online, graduate level coursework by examining a sample of graduate students of varying ethnicities enrolled in colleges and universities located across 16 states in the southeastern region of the United States. Once the pilot study was completed, the survey was provided via e-mail to a purposely selected cohort of approximately 200 graduate students of color enrolled in multiple institutions across the southern region. The program director for this cohort of students was specific about protecting the confidentiality of participants given the convenience of this sample; therefore, students participating in the program at the time of the survey received the survey from the program director, ensuring participants' privacy.

After I defended my proposal, I'd requested a letter of support from the program director of the selected cohort of students so that I could receive IRB approval to conduct the study with them. During the course of this conversation, the program director talked about the digital divide in higher education, and expressed a concern regarding the fact that the majority of students in the program might not have experienced online learning. I had encountered the digital divide in the literature, refer to it in this dissertation's literature review on pages 28-29, and draw attention to it again in Chapter Five.

With this flag raised, I expanded the study to an additional 300 graduate students of mixed ethnicities at a major metropolitan university located in the southeastern U.S. with online graduate enrollments of over 8,000 annually. The second group of 300 students was purposely selected from those enrolled in graduate level courses in the College of Education, the college offering the greatest number of online, graduate level courses at the selected institution at the time of the study. Since there was no way to pre-select for students of color from among the students in the mixed ethnicities group, the situation provided a way to include but not focus on responses from white voices.

The combination of the two sample groups provided a sample of 308 students, with students of color comprising 30% of this sample. Based on the literature review presented in this study demonstrating a lack of research for the population of graduate students of color, the importance of focusing on students of color guided this study. The purposely selected participants were students of color who were working towards or had completed graduate level degrees, which increased the likelihood that students would have had experience with online learning and online survey tools (Wang, 2007). Since superficial online dialogue is a problem noted in the research for undergraduate students in online learning (Paulus & Roberts, 2006), only graduate level students were selected to participate in this study.

This research was designed as a descriptive study of a sample of students of color who had participated at the graduate level in the online learning environment found in higher education. Generalizing the findings about this participant group of students of color to the larger population of all students of color in the online learning environment found in higher education was not intended. The study of the responses made by the

group of students who participated in this study about the online learning environment found in higher education can be used to illustrate gaps currently observed in the literature. This study was planned to illustrate and draw attention to issues exposed in the literature review and which I suspect may be of importance to the online learning environment in higher education, such as the fact that “there is very little literature on any other ethnic or racial groups [than white]” (Aiken, Cervero, & Johnson-Bailey, 2001, p. 307). The use of survey data including survey responses and open ended questions is used to reflect a real-life experience in online learning for a particular group of students.

Data Collection

Instrumentation

Once IRB approval was received, the pilot study for the survey was completed as described. The final paper version of the survey was translated into an online survey tool, SurveyMonkeyTM. The link to the survey was distributed via e-mail to the purposely selected cohort of approximately 200 students of color by their program director. I provided the program director with a paper version of the survey for his reference, IRB approval confirmation, and an e-mail invitation to students to participate containing a link to the survey. The director e-mailed the invitation and survey link to the students in his program. The survey was provided concurrently to a second group of approximately 300 graduate students of mixed ethnicities along with an invitation to participate in the study. I was required to submit appropriate IRB approval paperwork to the College of Education at the participating institution before a list of e-mail addresses was provided. The same

invitation and survey was distributed to these students via e-mail, with similar protections in place to protect the identity of participants.

To collect the data for this study from instructors teaching online for triangulation purposes, a pilot tested survey was provided to 100 purposefully selected instructors of mixed ethnicities using Survey Monkey TM (Appendix B). The survey was similar to the survey provided to students, and asked the same questions, albeit requesting responses from the perspective of an instructor rather than a student. Instructors who regularly teach in the online environment were identified using demographics criteria to select online instructors who have taught online for two years or longer yielding a purposeful sample size of 70.

Strategy for Data Analysis

The purpose of this study was to investigate the online learning environment in higher education through the observations and perceptions of students of color. Since little research has been directed toward students of color in the online environment of higher education, this study explored the intersection of the online learning environment and students of color in higher education using research questions to provoke inquiry, provide direction, and create a space for looking specifically at the observations and perceptions of students of color. It was not a study focused on differences between students of color and white students; this study sought to learn more about the online experiences of students of color by examining the experiences of students of color in the online learning environment through the use of a survey, since there is little available research for this population of students and their participation in the online environment at the present time. This section explains how each of the research questions was

analyzed. Results for each of the research questions are presented in Chapter Four; additional details pertinent to analysis and discussion of results appear in Chapter Five.

Data Analysis Strategy for Research Question One

One of the goals of this study as articulated by research question one was to examine the nature of the relationship between ethnicity and the variables of gender, age, and self-reported computer experience. Ethnicity categories on the survey followed those listed on an equal opportunity form found at a major metropolitan university, and list Black or African American, Hispanic, American Indian or Alaska Native, Asian/Pacific Islander, and White. As well, I added a space stating “Or, please describe your ethnicity” to replace category “Other” on the survey form. The entire sample of students who responded to the survey, which included white survey respondents, was used to answer this survey question. Since there had not been an effective way to select for ethnicity prior to sending out the survey to the mixed ethnicity group as discussed earlier in this chapter, and since the decision had been made to allow the voice of white students in order to provide triangulation to help answer research question two, descriptive statistics reflected the ethnographic profile of all students responding to the survey, N = 308. Data were collected from Survey Monkey TM and downloaded using SAS program software for statistical analysis and used to provide descriptive statistics. Each ethnicity was examined independently. Results are provided as an ethnographic profile of all students who responded to the survey in Chapter Four.

Chi-square statistics were used to examine the demographics to determine if a relationship was present between ethnicity and the variables of gender, age, and number of online classes the sample of students had participated in. Bivariate data were reported

for ethnicity and each variable. Chi-square tests were run using SAS to test the data for independence and homogeneity between ethnicity and each of the variables.

Due to the prevalence of computer anxiety with online classes noted in the literature, analysis of variance (ANOVA) was used to examine differences among ethnicities for self-reported comfort level with computers. Data were analyzed using a one-way ANOVA with the Levene test due to the unequal sample sizes of the ethnicity groups. Due to the small and unequal sample sizes in this study, an estimate of effect size was computed to augment the ANOVA.

Data Analysis Strategy for Research Question Two

Research question two sought to determine the extent to which the online environment provides a place where students of color can more easily express opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom environment. Students of color were the focus of this study; for triangulation and to determine if critiquing white norms was more or less important to white students responding to the survey, white student voices were allowed and presented in the statistical results and analysis for research question two. The goal of this inclusion was to identify the extent to which critiquing white norms was or was not important to white students participating in the survey.

Data were analyzed using a one-way ANOVA with the Levene test due to the unequal sample sizes of the ethnicity groups for responses to each of two survey questions:

1. In your opinion, to what extent did the online environment provide a place where you could more easily express your opinions or critiques addressing

assumptions of white norms as opposed to opportunities provided by a face-to-face classroom?

2. Is challenging or critiquing assumptions of white norms within online class discussions important to you?

Due to the small and unequal sample sizes in this study, an estimate of effect size was computed to augment the ANOVA.

In addition to analysis of variance among the various student ethnicities, I was interested in student responses to the survey questions from a group perspective.

Therefore, a *t* test was used to determine whether significant differences existed between students of color and white student responses for each of the two survey questions. My plan was not to compare and contrast students of color and white students. Rather, I wanted to determine if there was more or less interest by ethnicity in expressing opinions or critiques addressing assumptions of white norms online as opposed to opportunities provided by a face-to-face classroom environment.

I chose to use an inclusive approach for all ethnicities other than white to help answer research question two due to the small sample sizes reflected by the demographics and displayed in Chapter Four for some of the ethnicity groups. Minimum sample sizes of 30 are recommended in the literature for correlational research (Charles & Mertler, 2002; Gay & Airasian, 2003; McMillian & Schumacher, 2001). Small, purposeful samples have been found to be acceptable for exploratory research (James & Blank, 1993; Janesick, 2004; Kvale, 1996).

The fact that I am a white researcher seeking to understand the perspectives of students of color was a limitation to the study, and I relied on the literature to provide a

framework for understanding and interpreting the data. I found McLoughlin and Oliver's (2000) perspectives for instructional design for minority students helpful when considering decisions on how best to work with the ethnicity categories as I designed the methodology for this study. Using an inclusive model, I collapsed the data for all ethnicities other than white together, creating a sample population called students of color, which allowed me to examine responses from a group perspective to answer research question two. This approach is displayed in Chapter Four and helped align the data used for research question two with the purpose of the study.

Analysis of open ended questions. The open ended question portion of the student survey provided observations, experiences, and specific illustrative examples from students of color. The independent statements from students provided a layer of response detail to help answer the research question. To aid in the identification of themes, a key word list was used for theme analysis (Appendix C). This list of recurring words was compiled from the open ended survey response data resulting from the survey questions (Appendix D). Recurring words were identified independently by myself and another reader, then compared and combined (Taylor-Powell & Renner, 2003). The second reader was a post-graduate student trained in Communication Research at the Annenberg School for Communication at the University of Southern California. Next, the open ended survey response data were examined for recurring themes by the two readers using the key word list to help identify main topics within themes. Recurring themes were identified independently, then compared between the two readers for interrater reliability. I interpreted Denzin and Lincoln's call for critical conversations in qualitative inquiry, a call which includes conversations about race (2003, p.3), to apply to open ended

questions collected from an online environment. The “scissor and sort” process of identifying topics and associating topics with relevant quotes (Archer, 1988) was used separately by two readers to independently organize and make sense of the data collected from open ended survey questions. This process involved attaching meaning to words and organizing the written data into descriptive units by looking for patterns and themes embedded in the data. The result was a “bricolage...a pieced-together set of representations that are fitted to the specifics of a complex situation” (Denzin & Lincoln, 2003, p. 5). Due to the complex issues found in discussions of race and the possibly sensitive topics presented by the survey questions, contrary themes in the data were sought out and articulated. Once agreement was reached between the two readers for final themes, each theme was read independently as a direct answer to the research question for relevance and sensemaking.

Final themes with examples are presented as results in Chapter Four. Relevant quotes were woven into the summary and discussion in Chapter Five. Open ended responses provided examples of personal experiences from students and instructors of color who answered the survey questions. The study of responses to the open ended questions was phenomenological in approach and emphasizes subjective consciousness and intentions rather than taking an ontological approach, which would emphasize the abstract (Slattery, 1995).

Data Analysis Strategy for Research Question Three

Survey questions addressed gaps noted in the literature pertinent to students of color participating in the online learning environment. Since studies about the experiences of students of color in the online learning environment were found to be

missing from the literature, survey participants were asked, “If you could offer online learning instructors and designers advice about providing an online course environment which emphasizes the voices and experiences of persons of color, what would it be?” The open ended question portion of the student survey (Appendix A) provided observations, experiences, and specific illustrative examples from students of color. The independent statements from students provided a layer of response detail to help answer the research question.

Student responses were supplemented with instructor responses for triangulation. Triangulation using online instructor responses to the survey question provided the added perspective of online instructors. The open ended question portion of the instructor survey (Appendix B) provided observations, experiences, and specific illustrative examples from instructors of color. In keeping with the research focus on students of color, only responses from students and instructors of color were included in the results and analysis of the open ended questions.

Limitations

This study followed a nonexperimental, exploratory design using gaps found in the literature surrounding the online learning environment, and focused on the observations and perceptions about the online environment provided by students of color. No assumptions about this population in the online environment have been made, since, as the literature review indicates, little research exists for this population. There is no clear indication in the literature as to why this lack may exist other than the fact that students and instructors of color are a minority in the higher education environment.

This study examined responses from students of varying ethnicities and was not

designed to be a comparative study of difference between white students and students of color. This research specifically sought out students of color as the focus of the study. This descriptive study provided information about a specific sample of students who had participated in online learning at the graduate student level. Due to the anonymity of the survey respondents, I did not know where respondents attended college. Since no two institutions, no two instructors, and no two students are exactly alike, this study was limited to the students, instructors, and institutions involved in the study and therefore is not implied to be a representative sample of the population of students of color participating in graduate level online classes. Since there exists a lack of randomness of assigned participants, generalizability is not possible, and consistency of data is a limitation to the study due to the use of self-reporting questionnaires.

This research focused on authentic experiences in the online learning environment as reported from the observations and perspectives of students of color and included observations and perspectives from instructors of color about the online environment. As technologies change, new forms of online instruction evolve, and this study did not attempt to differentiate between hardware, software, blended technologies, or systems used for online learning, rather sought the perceived experience of personal participation in what the participants considered to be an online class. Technological issues, such as computer or software type, system design, and speed of transmission were not taken into consideration for the purposes of this study.

This research was planned to reflect a true experience as self-reported for the participants involved in the study. The assumption was that participants would answer questions honestly. During the analysis of the data, I strove to “describe, explain, and

make understandable the familiar in a contextual, personal, and passionate way” (Janesick, 2003, p. 73), keeping in mind the fact that I am a white voice reporting and describing experiences for persons of color.

Human Subjects Protection and Confidentiality

Appropriate human subjects protection was implemented at all stages of the research and appropriate paperwork for IRB approval was submitted and approved before the research commenced. The confidentiality of participants was communicated to the participants and appropriate processes put in place to secure participant files and data. Surveys were not identified with participants or with a particular e-mail when received back through SurveyMonkey™, and the names and associated e-mail to whom the survey was sent was not linked in the research data in any way. Any paper data was shredded after the research was completed, and any online files including sent e-mail were deleted. Locked cabinets were used for paper copies, notes, and computer disks, and online data files were password protected. The researcher was available via telephone and e-mail to answer any participant questions about the study. The researcher completed the required course, Foundations in Human Subject Protections at the University of South Florida, and IRB Exempt Certification for the project was received.

Chapter Four: Results

Introduction

The purpose of this study was to investigate the online learning environment in higher education through the observations and perceptions of students of color. Since little research has been directed toward students of color in the online environment of higher education, this study explored the intersection of the online learning environment and students of color in higher education using research questions to provoke inquiry, provide direction, and create a space for looking specifically at the observations and perceptions of students of color. This study was not focused on differences between students of color and white students; this study sought to understand more about the online learning environment in higher education by examining the observations and perceptions of students of color through the use of a survey, since there is little available research for this population of students and their participation in the online environment at the present time.

This study produced nonexperimental, exploratory research and descriptive data. Data were gathered by asking questions using an online survey, with the answers to the survey questions providing the data that was analyzed and used to answer the research questions. This chapter presents and explains results obtained from data collected and analyzed for this study in order to answer the following research questions:

1. What is the nature of the relationship between ethnicity and the variables of gender,

age, and self-reported computer experience?

2. To what extent does the online environment provide a place where students of color can more easily express opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom environment?

3. If persons of color [students or online instructors] could offer online learning instructors and designers advice about providing an online course environment which fully considers the voices and experiences of persons of color, what would it be?

Analysis and discussion of the results found for these data are presented in Chapter Five.

Research Question One Results

Descriptive statistics, chi-square, and ANOVA were used to examine the data and answer the research question. An ethnographic profile of students who participated in the study was developed using data collected from the survey to provide information about the ethnicity of participants. Chi-square statistics were used to examine the data to determine if associations existed between ethnicity and the variables of gender, age, and online class participation. A frequency distribution, percentage of responses, report of means, and analysis of variance (ANOVA) were used to examine student comfort level with computers, due to the prevalence of computer anxiety for adult learners in the online environment noted in the literature. Findings were summarized for each variable.

The entire sample of students who responded to the survey, which included white survey respondents, was used to answer research questions one and two. Since there had not been an effective way to select for ethnicity prior to sending out the survey to the mixed ethnicity group as discussed in Chapter Three, and since the decision had been made to allow the voice of white students in order to provide triangulation to help answer

research question two, descriptive statistics reflect the ethnographic profile of all students responding to the survey, N = 308. Ethnicity categories on the survey followed those listed on an equal opportunity form found at a major metropolitan university, and listed Black or African American, Hispanic, Asian/Pacific Islander, American Indian/Alaska Native, and White. As well, I added a space stating “Or, please describe your ethnicity” to replace category “Other” on the survey form. Students responding to this category on the survey included the self-reported categories of African-Irish, Arabic, Caribbean, Cuban-American, Dominican American, Indian, Lebanese-American, West Indian, White-Hispanic, and multiracial. Data were collected from an online survey hosted by Survey Monkey TM and downloaded using SAS program software for statistical analysis. Each ethnicity was examined independently for research question one.

Ethnographic Profile of Student Participants

The ethnographic profile represents data for all students who responded to the survey. For the sample of students responding to the survey, 93 students were students of color, representing 30% of the total respondents. Black and Hispanic students were close in representation in the sample of participating students at 13% and 11% respectively. Asian students represented 2% of the sample, and American Indian/ Alaska Natives represented 1% . The category “Other” represented 3% of the total sample. First, a frequency distribution is provided for each ethnicity group of student participants (Table 4). Next, the nature of the relationship between ethnicity and each of the variables is described. Then, the relationship between ethnicity and comfort level using computers is examined. Finally, a summary of the results answers the research question.

Table 4

Ethnicity of Student Participants

Ethnicity of Participants	Frequency	% Representation
African American	40	13%
Hispanic	35	11%
Asian	6	2%
American Indian/ Alaska Native	2	1%
Other	10	3%
White	215	70%
Total N = 308		

Chi-Square Analysis of Student Demographics

The chi-square test was used to examine the demographics and the hypothesis that relationships existed between ethnicity and the variables of gender, age, and number of online classes the sample of students had taken (Table 5). The chi-square test was not statistically significant at the .05 level. The obtained χ^2 -value was less than the critical χ^2 -value, therefore I failed to reject the null hypothesis that no relationships were present between ethnicity and gender, ethnicity and age, and ethnicity and online classes taken. Effect sizes were small for each relationship tested.

Table 5

Chi-Square Analysis of Student Demographics

Variable	Value/Ethnicity	DF	Alpha Level .05	Effect Size
Gender	8.39	5	11.07	.17
Age	18.54	25	37.65	.11
Online Classes Taken	56.48	65	79.08	.19

Chi-Square Analysis for Ethnicity and Gender

The chi-square test for ethnicity and gender, $\chi^2(5, N = 308) = 8.39, p = .05$, was not statistically significant at the .05 level; therefore, I failed to reject the null hypothesis that no relationship was present between ethnicity and gender. The total sample of student participants in this study was dominated by females at 78%, with males represented at 22%. Variability among participating ethnicities for gender is described using bivariate data (Table 6). The predominance of females in the United States graduate student population was established with reported percentages of 54% for full-time students and 61% for part-time students (U.S. Dept. of Education, 2004), and has continued to grow (National Center for Education Statistics, 2005).

For students of color, female students of color dominated the sample of combined ethnicities of students of color at 23.7% for females vs. 6.49% for males. Females represented the majority of the sample for African American, Hispanic, Asian, and white students participating in the study. American Indian/Alaska Native and students reporting

in the “other” category were equally represented between males and females, though these sample sizes were small and posed a threat to the analysis.

Table 6

Bivariate Data for Ethnicity by Gender

Ethnicity	Males	Percent	Females	Percent
African American	6	1.95	34	11.04
Hispanic	8	2.60	27	8.77
Asian	0	0	6	1.95
American Indian/Alaska Native	1	.32	1	.32
Other	5	1.62	5	1.62
Total Students of Color N = 93	20	6.49	73	23.7
White	47	15.26	168	54.55
Total N = 308	N = 67	21.75	N = 241	78.25

Chi-Square Analysis for Ethnicity and Age

The chi-square test for ethnicity and age, $\chi^2(25, N = 308) = 18.54, p = .05$, was not statistically significant at the .05 level. Therefore, I failed to reject the null hypothesis that no relationship was present between ethnicity and age. The age range for students participating in this study was spread between 100 participants in the 20-29 age range, to two participants over the age of 70. Variability among participating ethnicities for age is

described using bivariate data (Table 7). Extreme observations and small sample sizes posed a threat to the analysis.

Table 7

Bivariate Data for Ethnicity by Age

Age	African		Hispanic		Asian		Am Ind/ AK Native		Other		White	
Range	American											
	N	%	N	%	N	%	N	%	N	%	N	%
20-29	13	4.22	16	5.19	3	.97	0	0	4	1.30	64	20.78
30-39	16	5.19	8	2.60	3	.97	1	.32	4	1.30	72	23.38
40-49	6	1.95	8	2.60	0	0	1	.32	0	0	45	14.61
50-59	4	1.30	2	.65	0	0	0	0	2	.65	29	9.42
60-69	5	.32	0	0	0	0	0	0	2	.65	29	9.42
70 +	0	.0	1	.32	0	0	0	0	0	0	1	.32

Chi-Square Analysis for Ethnicity and Online Classes Taken

The chi-square test for ethnicity and online classes taken, $\chi^2(65, N = 308) = 56.48, p = .05$, was not statistically significant at the .05 level.

Therefore, I failed to reject the null hypothesis that no relationship was present between ethnicity and online classes taken. The range for online classes taken was spread between one class taken by 152 participants to one participant taking 28 classes. The mean number of classes taken among students was 2.45. Variability among ethnicities for online classes taken is described using bivariate data (Table 8). Extreme observations and small sample sizes posed a threat to the analysis.

Table 8

Bivariate Data for Ethnicity by Online Classes Taken

N of Classes	African American		Hispanic		Asian		Am Indian AK Native		Other		White	
	N	%	N	%	N	%	N	%	N	%	N	%
1	16	5.20	15	4.87	4	1.30	1	.32	4	1.30	112	36.36
2	8	2.60	7	2.27	0	0	1	.32	2	.65	28	12.34
3	1	.32	3	.97	2	.65	0	0	1	.32	15	4.87
4	2	.65	3	.97	0	0	0	0	0	0	12	3.90
5	7	2.27	2	.65	0	0	0	0	1	.32	12	3.90
6	2	.65	3	.97	0	0	0	0	0	0	9	2.92
7	1	.32	1	.32	0	0	0	0	1	.32	5	1.62
8	2	.65	0	0	0	0	0	0	0	0	8	2.60
11	0	0	1	.32	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	1	.32	1	.32
14	0	0	0	0	0	0	0	0	0	0	1	.32
15	0	0	0	0	0	0	0	0	0	0	1	.32
28	0	0	0	0	0	0	0	0	0	0	1	.32

ANOVA Analysis of Comfort Level with Computers

Due to the prevalence of computer anxiety with online classes noted in the literature, ANOVA was used to examine differences among ethnicities for self-reported comfort level with computers. Data were analyzed using a one-way ANOVA with the Levene test due to the unequal sample sizes of the ethnicity groups (Table 9). Due to the small and unequal sample sizes in this study, an estimate of effect size was computed to augment the ANOVA. There were no significant differences observed among ethnicities for comfort level with computers at $p > \text{than } .05$, $F(5, 302) = 1.05$, $p = .40$; the effect size was small at .13.

Table 9

Analysis of variance for self-reported comfort level scores

Source	<i>df</i>	SS	MS	<i>F</i>	<i>p</i>	Effect Size
Ethnicity	5	1.4.3	.29	1.05	.40	.13
Within Groups	302	82.32	.27			

The variable of self-reported computer experience was operationalized as comfort level and discussed in Chapter Three (Table 4, p.49). Frequency and percentage of the sample self-reporting their comfort level with computers demonstrated that the majority of participants were comfortable with computers (Table 10). Means for comfort level by ethnicity were computed and reflect similar means among the ethnicities for the total participant group, $N = 308$, (Table 11).

Table 10

Frequency and Percentages for Comfort Level with Computers

Level of Comfort	Frequency	Percentage	Description of Comfort Level
Novice	13	4.22%	Limited computer experience going into graduate studies, limited Internet use in personal and professional life; often needed help with online assignments and activities
Comfortable	205	66.56%	Often used the computer in personal and professional life before going into graduate studies, therefore confident with online assignments and activities; rarely needed help with online assignments and activities
Expert	90	29.22%	Frequent and sometimes advanced computer use in personal and professional life (ex: Photoshop, creation of personal or professional Web page or presentations) before going into graduate studies; helped others or took a leadership role in groups with online assignments

Table 11

Student Means for Comfort Level With Computers by Ethnicity

Ethnicity	N	Mean	SD
African American	40	2.15	.47
Hispanic	35	2.34	.54
Asian	6	2.00	.63
American Indian/Alaska Native	2	2.50	.70
Other	10	2.40	.52
White	215	2.25	.52
Total N = 308			

Results Summary for Research Question One

The demographics represented data for the total sample of all students who responded to the survey, N = 308. For the sample of students responding to the survey, 93 students were students of color, representing 30% of the total sample. Black and Hispanic students were close in representation in the sample of participating students at 13% and 11% respectively. Asian students represented 2% of the sample, and American Indian/Alaska Natives represented 1%. The category “Other” represented 3% of the total sample. Females dominated the total sample at 78%. The most frequently reported age range for students responding to the survey was 30-39. The mean for online class participation was 2.45. The investigation of the nature of the relationship between ethnicity and the

variables of gender, age, and self-reported computer experience for the sample population revealed that the variables of ethnicity and gender, age, and online class participation were not related when examined using chi-square analysis, and effect sizes were small.

There were no significant differences among ethnicities for comfort level with computers when examined in ANOVA, $p = .40$, with a small effect size of .13. For computer comfort level, 66.56% of the population surveyed reported that they were comfortable with computers in response to the survey request to rate personal computer experience, with only 4.22% rating themselves as novices, and 29.22% rating themselves as expert. The smaller ethnicity sample sizes posed a threat to the analysis of results. For example, the highest mean reported for comfort level by ethnicity is representative of only two students. Discussion of ethnicity and the variables of gender, age, and self-reported computer experience for the sample population are presented in Chapter Five.

Research Question Two Results

In order to determine if challenging or critiquing assumptions of white norms was more or less important to students responding to the survey, t tests and ANOVA were used to examine responses from both white students and students of color using data collected from two survey questions:

1. In your opinion, to what extent did the online environment provide a place where you could more easily express your opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom?
2. Is challenging or critiquing assumptions of white norms within online class discussions important to you?

This study was not intended to be a comparison study between students of color and white students, however, in response to the literature regarding white norms addressed in Chapter Two, white student responses were included in this part of the study in order to examine more or less interest in challenging white norms by white students in the online environment. The fact that I am a white researcher seeking to understand the perspectives of students of color was a limitation to the study, and I relied on the literature to provide a framework for understanding and interpreting the data. I found McLoughlin and Oliver's (2000) perspectives for instructional design for minority students helpful when considering decisions on how best to work with the ethnicity categories as I designed the methodology for this study. I chose to use an inclusive approach for all ethnicities other than white to help answer research question two due to the small sample sizes reflected by the demographics for some of the ethnicity groups, thus creating a sample population called students of color, which allowed me to examine responses from a group perspective to answer research question two. This approach helped align the data used for research question two with the purpose of the study.

For the purpose of the *t* tests, all represented ethnicities who were not white were collapsed together to reflect students of color as a group (Table 12). I chose to look at the population of students of color as a group for responses to two survey questions due to unequal sample sizes. For students who responded to these two questions on the survey, white students $N = 137$ and students of color $N = 69$. As well, this choice provided the opportunity to collect and reflect a group response from students of color, in keeping with the purpose of the research study.

Table 12

Representation of Original and Collapsed Data

Original data by Individual Ethnicity, N = 206		Collapsed data, N = 206	
African American	32	Students of color	69
Hispanic	26	White students	137
Asian	4		
Other	7		
White	137		

t Test for Survey Question One

The collapsed sample was used to examine the survey question: In your opinion, to what extent did the online environment provide a place where you could more easily express your opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom?

Not at all	Minimally	Online and Face-to-Face Environments Provided the Same Opportunities	Somewhat	To a great extent
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Data were analyzed using an independent-samples *t* test. Equal variances *t* test was selected: ($F=1.13$, $p = .53$). This analysis revealed no significant difference between the two groups, $t(204) = -1.67$; $p = .10$.

ANOVA Test for Survey Question One

Data were analyzed using a one-way ANOVA with the Levene test due to the

unequal sample sizes of the ethnicity groups (Table 13). Due to the small and unequal sample sizes in this study, an estimate of effect size was computed to augment the ANOVA. There were no significant differences observed among ethnicities at $p > .05$, $F(4, 200) = 1.33$, $p = .26$; the effect size was small at .16.

Table 13

Analysis of Variance for Question One Scores

Source	<i>df</i>	SS	MS	<i>F</i>	<i>p</i>	Effect Size
Ethnicity	4	8.44	2.11	1.33	.26	.16
Within Groups	200	317.54	1.59			

There were no significant differences observed between groups using the t test; there were no significant differences among ethnicities when examined in ANOVA with Levene test for groups of unequal sizes. Means for students who answered the survey question by ethnicity were computed and reflect similar means among the ethnicities for the participants, $N = 206$ (Table 14). The sample means for students of color demonstrated similar scores in finding opportunities in the online environment from which to easily express opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom. African American students found the online environment about equal to a face-to-face classroom, Asian students rated the online environments somewhat higher than the face-to-face experience,

and other students of color found the online environment somewhat less than equal to a face-to-face classroom as a place from which to more easily express opinions or critiques addressing assumptions of white norms.

Table 14

Student Answers to Survey Question One by Ethnicity

Ethnicity	N	Mean	SD
African American	32	3.06	1.36
Hispanic	26	2.92	1.29
Asian	4	3.75	1.26
Other	7	2.86	.90
White	137	2.67	1.24
Total N = 206			

t Test for Survey Question Two

The collapsed sample was used to examine survey question: Is challenging or critiquing assumptions of white norms within online class discussions important to you?

Not important at all	Minimally important	Neither important nor unimportant	Somewhat important	Very important
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Data were analyzed using an independent-samples *t* test. Equal variances *t* test was selected: ($F=1.01$, $p = .96$). Some differences were observed between the responses of

students to the survey question, but they were not statistically significant at the $p > .05$ level, $t(204) = -1.94$; $p = .05$.

ANOVA Test for Survey Question Two

Data were analyzed using a one-way ANOVA with the Levene test due to the unequal sample sizes of the ethnicity groups (Table 15). Due to the small and unequal sample sizes in this study, an estimate of effect size was computed to augment the ANOVA. There were no significant differences observed among ethnicities at $p > .05$, $F(4, 201) = 1.08$, $p = .37$; the effect size was small at .14.

Table 15

Analysis of Variance for Question Two Scores

Source	<i>df</i>	SS	MS	<i>F</i>	<i>p</i>	Effect Size
Ethnicity	4	7.60	1.90	1.08	.37	.14
Within Groups	201	354.59	1.76			

Means for students who answered the survey question by ethnicity were computed and reflect similar means among the ethnicities for the participants, $N = 206$ (Table 16). There were some differences among means observed between groups using the t test, ($p = .05$), but they were not significant; there were no significant differences among ethnicities when examined in ANOVA with Levene test for groups of unequal

sizes. Students of color displayed similar means. When examining means it can be noted that white students displayed the lowest mean, indicating that white students found challenging or critiquing assumptions of white norms within online class discussions to be the least important among the ethnicities examined. The sample means for students of color demonstrated similar scores indicating the importance of challenging or critiquing assumptions of white norms within online class discussions. The overall mean scores indicated that students of color who answered the question found the importance of challenging or critiquing assumptions of white norms within online class discussions to be between neither important nor unimportant to minimally important.

Table 16

Student Answers to Survey Question One by Ethnicity

Ethnicity	N	Mean	SD
African American	32	3.03	1.33
Hispanic	26	3.12	1.40
Asian	4	3.50	1.29
Other	7	3.29	1.25
White	137	2.74	1.32
Total N = 206			

African American students, Hispanic students and other students of color rated the importance of challenging or critiquing assumptions of white norms within online class discussions neither important nor unimportant. Asian students rated the importance midway between neither important nor unimportant and somewhat important. These findings are reflected against the literature in Chapter Five.

Open Ended Question Results for Research Question Two

Open ended questions on the survey were designed to solicit responses in participating students' own words to provide observations from the personal perspective of students of color in order to completely evaluate the research question. For the open ended questions, using the printed word rather than transcription from an oral interview provided participants with more time to reflect on answers than is typically the case (Kvale, 1996, p.172), and my analysis describes participant responses rather than interpreting them (p. 127). Selected comments collected from the survey are used to illustrate the point of each theme and appear verbatim.

The method used for extracting themes from student responses was described in Chapter Three. Since the goal of this dissertation was to focus on students of color, only open ended responses received from students of color were included. Each response reported in this section was provided by a different student of color, including African American, Hispanic, Asian, Indian, and Arab. Gender is not indicated in this section since gender in online dialogue comparison is readily located in the literature, and gender is not a focal point of this research; this research considered students of color from an ethnicity group perspective rather than by gender for the purposes of this study. Please consider that each of these stories represents the observation or experience of one student of color

responding to a survey. There is no attempt made in this dissertation to generalize these observations to other students of color; however, students of any ethnicity who read this dissertation may decide that some of the stories resonate for them.

Out of the 93 students of color who responded to the survey, only 20 provided answers to the open ended response questions. Of these responses, nine were from African American students, six were from Hispanic students, three were from Asian students, and students of other ethnicities provided two responses. The strategy for extracting themes from collected responses was described in Chapter Three. Responses reported observations, experiences, and opinions regarding the extent to which the online environment provides a place where students of color can more easily express opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom environment. Three themes emerged from story responses by students of color pertinent to addressing the research question. Since the goal of this dissertation is to focus on students of color, only open ended responses received from students of color were used to construct themes. Themes are first listed, then addressed separately with associated results. Results are reported verbatim. Analysis and discussion of results is provided in Chapter Five.

Themes. In theme one, students responding to the survey reported that opportunities to challenge perspectives presented by face-to-face classes dealing with student uniqueness and white norms may not always be easily translated into the online environment. In theme two, students responding to the survey found the online environment to be a place where opinions or critiques addressing assumptions of white norms were not usually part of the curriculum, and were typically not addressed (unless it

is an appropriate subject for a class topic, such as multiculturalism), a fact reported to be a problem. In theme three, students responding to the survey found the online environment to be a place where opinions or critiques addressing assumptions of white norms were not usually part of the curriculum, and were typically not addressed (unless it was an appropriate subject for a particular class or class topic, such as multiculturalism), a fact reported to be welcome.

Presentation and Discussion of Themes Through Representative Responses

Theme one representative responses. Through these responses, students talk about some of the problems they observed or experienced when translating face-to-face classroom interactions into the online environment. Responses are reported verbatim.

My classmates often did not take into perspective issues facing minorities and even more frequently, people of poverty. Their beliefs had never been challenged because they had never had many experiences in their personal life. I did a class presentation where I used the materials of Ruby Payne aha! process to discuss issues of poverty and I think the class was stunned.

I don't think it would have been as powerful if it were online.

The African American student speaking in the example above articulates the theme that opportunities to challenge perspectives presented by face-to-face classes dealing with student uniqueness and white norms were not always easily translated into the online environment.

A Hispanic student taking an online class shares a story and an observation that online students may miss the benefits of face-to-face interaction:

Well, I took this online course as a means to get ahead as a new

mother to a four month old baby. While I enjoy the readings a great deal and I also enjoy the participation the journal entries lend to the class, I do wish we met more than twice in the semester. Sometimes, face to face interaction with peers allows students to see the gravity of the situation of racism more closely, and unfortunately, I don't think this class allows for much time to focus on important issues dealing with this topic. While it may be uncomfortable for the students, this type of topic allows an individual to grow as a person, and I think at times we are robbed of that without classroom interaction.

Two Asian students shared similar negative views:

“It takes away my identity; I do not prefer taking online courses; I don’t feel as if I learn as much as in a classroom environment.”

“I have never talked about anything that was very deep. The online discussion was light and short. Most of all, I never knew if anybody cared about the information I sent out.”

Where one Hispanic student shares advice for stating opinions in an online class as opposed to a face-to-face class:

Treat the online course as an face-to-face course. You should be able to state your opinions regardless of where and how you take a course. If professors don't want to hear you, INSIST and PERSIST [sic]

. . . another Hispanic student encounters a problem:

As a learner of English as a second language some concepts steeped in the dominant culture required extra time and study.

The adult education principles and practices found within andragogy provided the framework for this study. Andragogy helps identify situations in which adult learners learn best, such as appreciation of the ability to work at one's own pace. Keeping this in mind, I compared the Hispanic student's comment reflecting on the need for more time to assimilate cultural concepts by students who speak English as a second language to two responses from African American students reporting a contradictory perspective:

I felt like I could express myself and opinions more openly and intelligently since I had sufficient time to think through responses before posting.

I would have preferred meeting face-to-face. I like to ask questions and get the reaction from my classmates and instructor. Communication online is not very personable. In my opinion, people would speak more freely if their words were not essentially "documented."

From these responses it may be surmised that using the online environment is a personal experience, which may differ for students using English as their second language. Other challenges reported included frustration with online communication. One of the responses selected to represent this theme contained an online cue, INSIST AND PERSIST. The use of capital letters indicates shouting in the online environment. Responses from African American, Hispanic, and Asian students indicated that students find the online learning environment impersonal. African American student responses also reported that students enjoy and prefer face-to-face interaction.

Theme two representative responses. Through these responses, students share their observations and experiences regarding the opportunity to critique assumptions of white norms in online coursework, a fact reported to be a problem. Responses are reported verbatim. The online environment of anonymity and equity is not always seen as a positive environment within which to examine issues of race, class and gender in the example provided by a student of multiracial ethnicity:

As someone who was raised in a largely white neighborhood, I really believe that most white people really do not understand why persons of color feel devalued and voiceless. They do not understand basic tenets of sociology such as that the majority tends to set cultural values and expectations, and that values are not universals and thus evolve over time based on experiences, environments, etc.

Another student shared this experience:

As an Arab, I've made it a point to bring in my unique perspective into almost all class discussions even though several others seemed uncomfortable by it.

One Hispanic student observed, "experiences of persons of color are clearly being shifted to one side because they appear too controversial," and another Hispanic student shares the following account of an experience with an instructor:

I have a professor this semester who specifically asked for opinions in a test and graded my paper with an unfair grade because my opinion was not what he wanted. I believe that opinions should not be asked if they are not going to be respected. He could use a multiple choice test instead.

The next observation in this section points to a problem an African American student encountered with an instructor. I remind the reader that this problem relates to a particular instructor, it is not intended to infer that all students of color encounter this problem with their instructors. At the same time, the purpose of this dissertation is to focus on the observations and perceptions of students of color, and regardless if only one observation of this type is provided, that it even appears in the data will hopefully give instructors reading this dissertation a chance to self check their conscious or unconscious instructional style with students of mixed ethnicities.

I observed whites being provided more information. When I questioned something I was given the answer to that question, while it was explained to whites the whys and ifs.

The response above also presents a good example of a problem I encountered when collecting qualitative responses online. Due to the anonymity of the survey situation, I was not able to check back with participants in order to expand answers by asking for clarification. For this research, I used the fact that my job is steeped in the online learning environment to clarify the response above, and there are several ways in which the instructor could have differentiated between white students and students of color online. Instructors may have access to student demographics, there may have been a face-to-face orientation, students may be asked to post a picture and biographical information as a means to get to know other students or, in the case of another African American student:

Graduate students are typically part of a small community. All of the students know one another. All of the instructors members know the graduate students.

Many graduate students of color are the only ones in their departments. Everyone

seems to know the new Black girl before she's formally met them. Another thing to consider: in the humanities, race and other social constructions are par for the course - not the elephant in the room.

The observation of the student in this example above provided a segue to the next theme, where not addressing white norms was found by students of color to be both appropriate and welcome in online coursework.

Theme three representative responses. Through these responses, students share their observations and experiences regarding the opportunity to critique assumptions of white norms in online coursework, a fact reported to be welcome. Responses are reported verbatim. Theme three represents one of two sides to the same issue discussed for theme two. For this theme, students of color reported that they preferred to focus on the course curriculum and found discussions of white norms and race out of place for classes such as physics or mathematics. Students responding to this question expressed a desire to focus only on course content. These students found discussions of white norms already built into a social sciences, nursing, or education curriculum, which were the areas of degree concentration for the majority of survey respondents.

African American students reported:

“I find that race has not been truly delineated or even addressed. All students provide input and unless we look at each other's profiles, we don't say “as a person of color,” we just reply and keep going.”

“Only data relating to student achievement, socioeconomics, etc. were [discussed].”

“ Race not being a factor in the course is a short story with a happy ending.

There isn't an issue that needs to be discussed.”

Although only African American students voiced an opinion for this theme, andragogical principles which consider personal learning styles and preferences must be taken into consideration and confounded my ability to draw any finite conclusion from this theme.

Themes reflected reported experiences and opinions regarding the extent to which the online environment provided a place where students of color could more easily express opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom environment. The results of responses to open ended questions were grouped into themes, and representative answers were selected to illustrate the theme; however, responses are highly individual in nature and reflect faceted answers to the research question rather than one simple answer.

Narrative responses from participants to the open ended questions were beneficial to the research question being more fully explored, and captured expressed emotions that participants choose to put into words, creating a social presence in the online environment (Aragon, 2003). I collected and reported these experiences in this dissertation because they are not examined in the mainstream literature surrounding online learning. I used the interactivity model (Table 2, p. 48) to craft open ended questions in order to provide students with a place to provide independent statements which were not necessarily connected to others which had been previously expressed. The following story response reflects a unique experience for an African American student of color for the theme, and I have included it here to experientially round out the discussion:

The beauty of an online environment is that it totally removes the

intimidation factor. Here I was, signing up for a class called, "Social construction of race and racism" offered by the Africana Studies department. I assumed my instructor was black, and that made it easy for me to speak without reservation, sharing things that black people normally only share with each other. Imagine my surprise halfway through the semester when I discovered my Professor is white! That experience, in and of itself, was extremely significant. Had I walked into a classroom and ran into him the first day, I would never have felt I could speak as freely as I have during this session.

Results Summary for Research Question Two

Research question two examined the extent to which the online learning environment provided a place where students of color could more easily express opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom environment. The online learning environment was not conclusively found to be an environment where opinions or critiques could be expressed more easily than in a face to face classroom, and the importance to students of having the opportunity to challenge white norms in the online learning environment was not found to be significant by any ethnic group. No statistically significant differences were found between students of color and white students as a group or among individual ethnicities in answer to this question. The observations and perceptions reported in open ended question responses to the survey demonstrate that differences existed for individual students responding to the survey on a personal level. One way we may interpret these differences is against the theoretical framework used in this study, andragogy, which

considers the various personal circumstances and social situations which are present for adult learners, and the ways in which adults learn. The principles and practices of andragogy provide a place for the student's unique individual learning experiences which will vary due to curriculum content, instructor, and by personal experience and situation.

Research Question Three Results

The answer to research question three was co-constructed by asking the research question to students who had participated in online courses and to instructors who had taught online as a survey question. The same themes emerged from the responses of students of color as from the instructors' responses used for triangulation. For instructors responding to the survey, instructors of color represented 22% (N = 16) of the total sample (N = 72). African American instructors (N = 7), Hispanic instructors (N = 11), other ethnicities (N = 3). Three African American, three Hispanic, and one Semitic instructor provided stories. The methodology for analyzing the themes was provided in Chapter Three. The themes were similar in scope, but were separated for inclusion of differences of emphasis. All responses are reported verbatim. The first theme was more concerned with the anonymous nature of the online environment and the second theme centers around suggested ways classes could be structured. After presentation of each theme, both themes are discussed together since they were used together to answer the research question. Ideas and specifics were provided by individual responses to the open ended survey question which asked both students and faculty of color to offer distance learning instructors and designers advice about providing an online course environment which fully considers the voices and experiences of persons of color.

Open Ended Question Themes for Research Question Three

1. It is easier to ignore race, class, and gender in the online environment; therefore, it is important for instructors in the online environment to inform and remind students of the unique issues, aspects, and perspectives of all individuals.
2. Students' perspectives could be challenged by instructors taking a more constructivist approach in curriculum that more fully considers the situation and perspectives of all individuals.

Theme one representative responses. Through these responses, students who had participated in online classes and instructors of color who teach online classes provide observations and responses regarding the fact that it is easier to ignore race, class, and gender in the online environment; therefore, it is important for instructors in the online environment to inform and remind students of the unique issues, aspects, and perspectives of all individuals. Responses are reported verbatim.

There are many directions from which to view these data. Readers will each have a different online experience lens through which to view the narratives, from the perspective of an online student, or as a student who has never taken an online class, from the perspective of an instructor with or without online experience, as a person of color or as a white person. These data are not objective, they are subjective, and bound within a personal interaction perspective; therefore, findings will not match up with expectations of objective findings. One of the purposes of the study was to create a space for looking specifically at the observations and perspectives of students of color about the online environment. In this study I acted as an instrument to bring a set of observations about

the online learning environment in contact with the perceptions of students of color, an intersection which is missing from the literature.

I only took one course online which was program supervision. There were only three individuals enrolled, two white males and myself (a black female). The professor was also a white male. There was never any discussion about individuals of color as it related to evaluating, assessing, providing the most effective supervision styles/theories, etc. as it related to individuals of color.

This response demonstrated the limitations of collecting qualitative answers in a strictly online survey using strictly anonymous responses: did this student find the exclusion of discussions of individuals of color to be positive or negative? I assumed that this student saw the situation as an omission of the perspectives of persons of color from a negative standpoint. It was difficult to say what I thought students of color were saying from the perspective of a white researcher and presented a limitation to the study.

Hispanic instructors responding to the survey were in agreement that ethnicity issues do not belong in online classes outside of multicultural issues classes and found the anonymous environment a plus. Responses included:

“I think that is one of the benefits of teaching online; issues of color, gender, or sexual preference is minimized due to the fact that you are represented as a person online and nothing more than that description.

“All descriptives and assumptions are negated and you are able to represent yourself with your work and words.”

“One of the chief advantages of online learning is that race considerations should

be completely eliminated from the experience, and it should not impact teaching styles or grades in any way.”

The survey responses reflected some dissonance between instructor and student opinions, since the ability to speak freely about any issue was reported as valuable by African American and Hispanic students. An instructor’s position of not considering aspects of ethnicity in the online environment may not be the best approach to take, considering the following comment from a multiracial student who went into detail regarding how individuals may overlook the point of view of persons of color:

I would really like to see discussions of this nature take more of a sociological focus. As someone who was raised in a largely white neighborhood, I really believe that most white people really do not understand why persons of color feel devalued and voiceless. They do not understand basic tenets of sociology such as that the majority tends to set cultural values and expectations, and that values are not universals and thus evolve over time based on experiences, environments, etc. They tend to believe that values have always been the same and that they should apply to everyone equally. I believe that it is this world view that leads many white individuals to not listen to the voice of people of color. I am rambling a bit, but to summarize, I think that an understanding of the basic principles of culture and how it comes to vary might help break down some of the walls that people have built up because of the sensitive nature of race discussions in this country.

A Semitic instructor provided some suggestions for including perspectives which may differ from white norms based on their pedagogy and practice when dealing with the anonymous nature of the online environment:

In a wholly online environment, it is not obvious who is and who is not a student of color. It cannot be deduced from a name, for example, and students and teachers never meet face to face, nor do instructors have access to records that will identify students' ethnic backgrounds. The only time instructors are made aware of a student's ethnicity is when they self-reveal in discussion. I have found that incorporating materials in the course that provoke discussion about issues or perspectives that differ from the norm of white society seem to create a space in which students feel safe to reveal their own experiences in response. My policy has been to take student comments from written journals on the assigned readings, turned in to me, and to post these reflections anonymously in an online forum for student feedback. Students obtain their participation credit by reading and responding to the anonymous comments online. So, students initially write their thoughts in a safe environment, then present these in an anonymous fashion to the class for all students to read and respond to in a more public way.

My presentation of these online observations and perceptions acknowledges multiple interpretations. Responses from instructors include their personal teaching philosophies, curriculum and lesson context, any instructor bias that may exist, and commitment by instructor to incorporate a multiracial perspective into the course content. These observations present actions observed by participants and documented by responding to a survey. Coursework structure varies greatly among instructors; therefore, no generalization is possible.

Theme two representative responses. Through these responses, students who have participated in online classes and instructors of color who teach online classes provide

observations and advice for constructing an online course environment which fully considers the voices and experiences of persons of color. Responses from students and instructors share opinions regarding ways in which students' perspectives could be challenged by instructors taking a more constructivist approach in curriculum which more fully considers the situation and perspectives of all individuals. Responses are reported verbatim.

For this theme, students and instructors are aligned with common suggestions to incorporate more diverse materials into course curriculum as evidenced by African American, Asian, Arab, and Hispanic students and African American and Hispanic instructors responding to the survey who all urge online instructors to select materials written by a diverse population concerning diverse subjects. However, in this section I've selected representative answers that go beyond the typical suggestion to include more writing by minority authors in the course content.

An African American student shares a suggestion:

Contributions and the unique aspects of individuals of color can be introduced and incorporated into almost any subject matter. I also think that it is important for professors to make it a point to inform students of the unique issues, aspects, and perspectives of individuals of color.

An African American online instructor agrees with the perspective of the student's response and offers an example using modern technologies as a way to make the student suggestion come to life:

Incorporate diverse voices by using sources like *Youtube* and current events for the news. Give students assignments that expose them to events on campus or in

the community where diversity will be a factor. Have the students do assignments that require them to integrate prevailing values and traditions and whose voices/perspectives are missing and why.

An interesting constructivist idea is posed by an African American student:

I would probably have a link to those students who are white to express their position and I would have a link to those students of color to express their position. Then, I would have a forum to introduce a specific topic, such as “How have race relations improved since the Civil Rights Movement? How have race relations stayed the same since the Civil Rights Movement?” This will allow the students and instructors to see the difference through the eyes of both cultural standpoints.

Ideas and concrete suggestions to add constructivism to online classes to better consider diverse perspectives are provided by an African American instructor:

Take the opportunities that the subject matter provides to encourage the exploration of diverse perspectives (whether they be racial, gender, ethnic (language), or socioeconomically based). In sociology an instructor might openly ask, “Why might African Americans see the issue of immigration differently than White Americans?” Then, allow the advantage of having a non-time constrained exchange on the discussion board that could not happen within the limited hour in the face-to-face classroom. In a health related course, the instructor might ask for students' thoughts on why diabetes (alcoholism, high blood pressure, or other disorder) was more prevalent in one race than another. The point being to take advantage of the fact that the online discussion affords a forum for extended,

thoughtful sharing. In my field, education, there should be open dialog about the gap in access to technology as tools in under-funded schools (schools in areas with lower property tax revenue and the fairness of that funding structure). There should be discussion about how working-class parents whose ambitions do not reach beyond “get a job” can impact students' ambition to strive toward a college education while in the K-12 system and how that trend may vary across races and economic classes--including issues like how valuable the providing computer access at home, maybe in the middle class home of college educated parents as opposed to the home of working class people. I think there should be information provided to the entire class about how important computing skills will be in the work place of the future, for everyone. Encouraging personal anecdotes related to topics as part of discussion postings passively expose different points-of-view without labeling them as “white” or “black” or “latino” way of looking at things. Also, this kind of application of new knowledge can help to integrate it into lasting learning (critical thinking). The immediate anonymity of the Web can offer students a chance to read with an open mind. Though students may ultimately know the race or gender of a classmate, this may not be the first thing that comes to mind when read another's point-of-view, allowing for that new perspective to sink in before prejudices begin to cloud perceptions.

Results Summary for Research Question Three

The purpose of this study was to investigate the online learning environment in higher education through the observations and perceptions of students of color. One of the goals of the study was to provide direction and create a space for looking specifically

at the observations and perceptions of students of color. The results for research question three helped accomplish this goal by presenting specific ideas provided by students of color for ways in which the online learning environment could more fully consider the voices and experiences of persons of color. The ideas provided by students of color were supplemented by the observations and perceptions of instructors of color for triangulation, and provided a more complete range of responses specifically from persons of color about the online learning environment. In Chapter Five, responses are reflected against the literature. Direct responses from students of color and faculty of color collectively are missing in the large body of literature surrounding online learning, and this dissertation allowed me to fill in this blank, albeit in a very small way. It was important to me as a researcher to take a step in this direction, since there is little available research for this population of students and their participation in the online learning environment found in higher education at the present time.

Chapter Five: Analysis and Discussion

Introduction

The purpose of this study was to investigate the online learning environment in higher education through the observations and perceptions of students of color. Since little research has been directed toward students of color in the online environment of higher education, this study explored the intersection of the online learning environment and students of color in higher education using research questions to provoke inquiry, provide direction, and create a space for looking specifically at the observations and perceptions of students of color. This study was not focused on differences between students of color and white students; this study sought to understand more about the online learning environment in higher education by examining the observations and perceptions of students of color through the use of a survey, since there is little available research for this population of students and their participation in the online environment at the present time.

In Chapter Four, I described results for data collected from the sample population who participated in the study by responding to a survey. In this chapter, I discuss the findings obtained from the data and make recommendations for further research. Each research question is analyzed and discussed separately. Discussion of research question two includes selected, representative samples of observations and perceptions collected from students of color, and research question three includes selected, representative

samples of observations and perceptions collected from students of color and from instructors of color. I used the tools of descriptive and interpretive statistics, and themes extracted from open ended questions presented in a survey to answer the following research questions:

1. What is the nature of the relationship between ethnicity and the variables of gender, age, and self-reported computer experience?
2. To what extent does the online environment provide a place where students of color can more easily express opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom environment?
3. If persons of color [students or online instructors] could offer online learning instructors and designers advice about providing an online course environment which fully considers the voices and experiences of persons of color, what would it be?

The analysis of results provided in this chapter is accomplished by the discussion of a sample of experiences for students of mixed diversity who have participated in the online learning environment found in higher education. These experiences reflect only a tiny segment in the huge and evolving phenomenon of online learning from my point of view as a researcher, yet I find it critical to the current research available in the literature on the subject of online learning that general and widespread assumptions about online learning be approached from a problematic perspective. The analysis of the findings from the data applied my interpretive point of view as a researcher to ordinary activities encountered by students of color in the online learning environment.

An assumption that I encountered early in my graduate studies, one that I intuitively rejected, propelled me into inquiry which ended with the examination of topics

found in this dissertation. I refer to the widespread notion noted in the literature review: all college students have ready access to computers and the internet. As the literature review also documents, this is not the case. As I began to look for clues that all students may not have easy and equitable access to online learning in higher education, I encountered the barriers of computer anxiety for adult learners in online education and the digital divide. I was told that “all students at least have access to computers and online learning at their local school or library” by both instructors and peers, but found contradictory evidence in the literature. I learned from the literature and through personal experience when I sent the survey to participants in this study that the digital divide currently exists for students in the higher education environment; thus, I discovered problems in need of posing. I chose to use “ordinary language” (Janesick, 2004, p. 13) throughout this research project in order to promote a realistic and authentic communication exchange, and to “engage rather than distance” (ibid.) readers of this dissertation.

Analysis and Discussion for Research Question One

Descriptive statistics, chi-square, and ANOVA were used to examine the data and answer the research question. In Chapter Four, a demographic profile of students who participated in the study was constructed and analyzed using chi-square statistics to discover if relationships existed among the variables. The demographic profile and chi-square analysis provided information about the ethnicity, gender, age, and online class participation for students participating in the study. The discussion of the demographic variables begins with an analysis of the decision to include white students in a study focused on students of color. Next, an analysis of the nature of the relationship

between ethnicity and the variables of gender, age, and online class participation is provided through the examination of each variable and includes suggestions for further study. Then, the results obtained from the sample for student comfort level with computers are discussed due to the prevalence in the literature of computer anxiety for online learners in higher education. Finally, a summary discussion answers the research question.

Discussion of Sample Selection

The entire sample of students who responded to the survey, which included white survey respondents, was used to answer research questions one and two. Since there had not been an effective way to select for ethnicity prior to sending out the survey to the mixed ethnicity group as discussed in the Chapters Three and Four, and since the decision had been made to allow the voice of white students in order to provide triangulation to help answer research question two, descriptive statistics reflect the demographic profile of all students responding to the survey, $N = 308$. The decision to triangulate the responses to research question two by including responses from white students rather than limit the study strictly to variability of students of color was made in order to determine if challenging or critiquing assumptions of white norms was more or less important to white students. Thus, since white student responses are used in the analysis for research question two, they are included in the demographic profile. Including white students in the research results was not intended to demonstrate difference, but rather serve the purpose of shedding light on any issues of race through an examination of variability in finding issues of race to be more or less important to discuss in the online environment.

There is ample evidence in the literature which I interpreted and applied to the decision to include white students in the statistical portion of the study. In any study naming and examining race or ethnicity, there is a risk of reproducing racial and ethnic categories and power relations, such as white norms (Gunaratnam, 2003). In order to avoid research which “produces rather than reflects,” researchers must be cognizant of how research practices fit within the dominant epistemology (Gunaratnam, p. 7-8). It was not the intent of this research to produce or reproduce whiteness by looking at minority groups from the perspective of a white researcher, or using white students as a basis for comparison to students who are not white; this research was inspired by the paucity of literature about students of color in the online learning environment, and purposely built research around this population of students. The fact that I am a white researcher is another aspect of the study which cannot be ignored, and noting Flagg’s comment regarding “the tendency of whites not to think about whiteness” (Flagg, 1998, p. 2), deemed it prudent to include white voices in order to provide a complete answer to research question two, which examined white norms.

Ethnicity

The ethnographic profile represented data for all students who responded to the survey, N = 308. Ethnicity was examined independently for the ethnographic profile. For the total sample of students responding to the survey, 93 students were students of color, representing 30% of the total respondents. Black and Hispanic students were close in representation in the sample of participating students at 13% and 11% respectively. Asian students represented 2% of the sample, and American Indian/ Alaska Natives represented 1%. Other ethnicities represented 3% of the total sample, and included the self-reported

categories of African-Irish, Arabic, Caribbean, Cuban-American, Dominican American, Indian, Lebanese-American, West Indian, White-Hispanic, and multiracial. White students comprise the majority of students in graduate education, and the demographics collected in this sample reflected that fact. Determining how I would collect and organize data for students who were not white as a sample for this study presented problems.

In one instance, a student listed “White Hispanic” in the section of the survey requesting students to describe their ethnicity. Two other Hispanic students completed the survey as online students, but added statements on the survey that they were not students of color. These comments added to the complexity of categorizing students by ethnicity labels, and provided evidence that attaching an ethnicity label is a cloudy area. As these comments suggest, ethnicity labeling is complex, and further research into ethnicity labels and ethnicity categories is a topic requiring further research. For instance, should I consider American Indian/Alaska Natives students of color? On ethnicity reporting forms these students were listed separately from white students, rendering it complicated to determine categories for students who were not white. Therefore I resorted to using mainstream ethnicity labels found on the ethnicity reporting form to identify students, and for the purposes of this study, used all ethnicity labels that were not white to comprise the group for this study called students of color.

The fact that I am a white researcher seeking to understand the perspectives of students of color was a limitation to the study, and I relied on the literature to provide a framework for understanding and interpreting the data. I found McLoughlin and Oliver’s (2000) perspectives for instructional design for minority students helpful when considering decisions on how best to work with the ethnicity categories as I determined

the methodology to be used for this study. I chose to use an inclusive approach for all ethnicities other than white to help answer research question two due to the small sample sizes reflected by the demographics for some of the ethnicity groups, creating a sample population called students of color. This sample allowed me to examine responses from a group perspective to answer research question two. This approach helped align the data used for research question two with the purpose of the study.

Ethnicity and Gender

The chi-square test for ethnicity and gender, $\chi^2(5, N = 308) = 8.39, p = .05$, was not statistically significant at the .05 level. Therefore, I failed to reject the null hypothesis that no relationship was present between ethnicity and gender. The predominance of females in the graduate student population is well documented in the literature and in data collected and reported for higher education demographics (National Center for Education Statistics, 2005). The total sample of student participants in this study was dominated by females at 78%, with males represented at 22%. For students of color, female students of color dominated the sample for African American, Hispanic, and Asian students participating in the study. American Indian/Alaska Native and students reporting in the other ethnicities category were equally represented between males and females, though these sample sizes were small. A point of interest occurred in the study when I found that the sample percentages exactly mirrored the collective percentage of both full and part-time enrolled students found in the college I sampled during the semester in which I sampled the group of 300 students of mixed ethnicities.

The predominance of females in the American graduate student population is established with reported percentages of 54% for full-time students and 61% for part-time

students (U.S. Dept. of Education, 2004). The availability of online learning has broken barriers of access for online learners, and the online environment is reported to be compatible to women's styles of communication. The literature is rich with studies relating to women and online learning and women in higher education, particularly with regards to online communication and community building (Rava, 2001; Savicki & Kelly, 2000). My focus for this study was not on gender specific behaviors and observations, though due to the apparent predominance of women in American higher education, a focus specifically on women of color in the online environment from an American as well as from a global perspective is a topic suggested for further research.

Ethnicity and Age

The chi-square test for ethnicity and age, $\chi^2(25, N = 308) = 18.54, p = .05$, was not statistically significant at the .05 level. Therefore, I failed to reject the null hypothesis that no relationship was present between ethnicity and age. The age range for the total sample of students participating in this study was spread between 100 participants in the 20-29 age range to five participants over the age of 60 and two participants were over the age of 70. White students represented the majority in all age range samples as they do in the greater population. One of the five students over the age of 60 was African American, one of the two participants over the age of 70 was Hispanic and the other was white. For students of color in the sample, the majority of participants by age were represented by Hispanic students in the 20-29 age range ($N = 16$), and African American students in the 30-39 age range ($N = 16$).

Data for ethnicity and age reported participation in graduate level coursework for a wide range of ages for students of color: from age 20 to over 60 for the African

American sample, from age 20 to over 70 for the Hispanic sample, from age 20 to over 30 for the Asian sample, from age 30 to over 40 for the American Indian/Alaska Native sample, and from age 20 to over 50 for the sample reporting other ethnicities. The more narrow range for Asian (N = 6) and American Indian/Alaska Native (N = 2) is due to the small sample size representation. White students (N = 215) were represented in each age category. These results provided evidence of adult learners' interest in lifelong learning across ethnicities.

A common theme throughout the research and popular writing for adult learners is the observation that priorities change as adults age and move through each successive life cycle stage. These priorities reflect changing interests and motivations for adult learners. As men and women negotiate life cycle passages and move on to the next life cycle, their attitudes on learning both reflect and expand (Havighurst, 1973). Popular writer and media personality Sheehy (1995, 2005) defines major life stages as Provisional Adulthood 18-30, First Adulthood: 30-45, and Second Adulthood 45-85+, and views second adulthood as a time of power and renewal, especially for women. The continued interest in higher education across the age ranges is apparent in the age demographics for students responding to the survey. The range of ages among participants demonstrated the interest in graduate study by adults in the second stage of adulthood, with 14% of the total students sampled over 50 years of age, and suggests an interesting topic for further research in adult education: consideration of the interest of students of color over the age of 50 in the online learning environment found in higher education..

Ethnicity and Online Class Participation

The results of the chi-square test for ethnicity and online classes taken,

$\chi^2(65, N = 308) = 56.48, p = .05$, were not statistically significant at the .05 level.

Therefore, I failed to reject the null hypothesis that no relationship was present between ethnicity and online classes taken. The range for the number of online classes completed varied widely with 49% of students responding to the survey completing one class, and one student reporting completion of 28 classes, which probably indicates an online degree program. These data covered a wide range which included some extreme observations and small sample sizes, posing a threat to the analysis.

For the sample of students of color, African American students ($N = 40$) and Hispanic students ($N = 35$) had similar percentages for online classes taken. For the total population of students ($N = 308$), African American students completed 12.99% of online classes and Hispanic students completed 11.36%. Latinas and Latinos are considered the most rapidly growing minority group in the U.S. today, yet little is known concerning how this population learns in the online environment (Fox & Livingston, 2007). This example of the gap in the literature surrounding the online environment in higher education for students of color demonstrates that more research about students of color is called for. Drawing attention to the lack of literature and research for students of color in the online learning environment found in higher education in order to provoke inquiry was part of the purpose of this study.

There is tremendous variation among institutions for the number of online classes and online degree programs offered. Due to the anonymity of the survey, I was not able to tell where students attended college. Comparison of information among institutions may be found in numerous studies, which are readily available on comprehensive websites focused on online learning in higher education (Sloan Consortium, 2006;

Southern Regional Electronic Board, 2007). While these websites report information about institutions offering online classes and programs, demographics are rarely provided beyond enrollment and completion data. A recommendation of this study is that ethnicity, gender, and age demographics be added to the data commonly collected about online learning so that participation gaps may be identified. Participation rates in online classes continue to grow, and the ability of students to select online classes from other institutions to supplement or develop their program of study is another issue related to online class participation which requires further research and data collection.

Analysis of Student Comfort Level Using Computers

Comfort level using computers was considered along with online class participation for the variable of self-reported computer experience due to the gap noted in the literature around computer anxiety and the online learning environment in higher education. Barriers associated with online courses compared to traditional on campus instruction include computer anxiety as one of the more commonly mentioned problems (King, 2002). Differences in computer skill levels or computer familiarity as well as cultural acclimation to technology may be creating an anxiety barrier to learning for online learners who are less expert than their peers with computer use. Lack of competence and confidence with online learning software is cited as a reason for attrition in online degree programs at the graduate level (Willging & Johnson, 2004), and for anxiety in college students with diverse ethnic backgrounds (McInerney, March, & McInerney, 1999).

For the purposes of this study, the variable of self-reported computer experience was operationalized as comfort level and defined in Chapter Three (Table 4, p.49),

articulating comfort levels at the novice, comfortable, and expert level. When data were collected from the total sample of participants ($N = 308$), and analyzed using a one-way ANOVA with the Levene test for unequal sample sizes, there were no significant differences observed among ethnicities for comfort level with computers at $p > .05$, $F(5, 302) = 1.05$, $p = .40$; the effect size was small at .13. For comfort level using computers, 66.56% of the population surveyed reported that they were comfortable with computers in response to the survey request to rate personal computer experience, with only 4.22% rating themselves as novices, and 29.22% rating themselves as expert.

Minority participation in higher education in general was a cause of small sample sizes in this study, especially for the Asian, American Indian/Alaska Native, and other ethnicities. Research for students of color and their participation in the online environment in higher education is needed, yet they are overlooked in the literature. For example, Huffman Leyva (2005) finds “white students have been programmed to use computers since they were very young . . . Hispanic students have not been acclimated to using the computer” (p. 35). A lack of similar studies for Hispanic graduate students and other minority groups, perhaps due in part to assumptions of equality in computer access and use, reveals a gap in the literature which is reflective of the lower levels of participation by minority groups in online course participation at the graduate level.

Summary Discussion for Research Question One

The investigation of the nature of the relationship between ethnicity and the variables of gender, age, and self-reported computer experience for the sample population revealed that no relationships existed between the variables. Ethnicity examined with the variable gender demonstrated that the sample mirrored the predominance of women

found in the higher education environment. Findings from the data for ethnicity examined with the variable age revealed participation in graduate level coursework for a wide range of ages, and provided evidence of adult learners' interest in lifelong learning across ethnicities. Ethnicity examined with the variable online course participation demonstrated online course participation across ethnicities; however, the sample contained extreme observations and small sample sizes over wide variability of data for course participation, and was a weakness of the study. As well, I considered not knowing the total number of classes available for student participation to be a confounding variable. There were no significant differences observed among ethnicities for comfort level with computers at $p > .05$, $F(5, 302) = 1.05$, $p = .40$; the effect size was small at .13.

What do these results imply? Though no significant relationships among ethnicities based on the variables of gender, age, and computer experience were found for students responding to the survey, the implication for the field is that if students of color have access to the online learning environment, which the participants responding to this survey had, participation exists. As an active researcher, I considered how I could move the findings from this study into the field to intersect the growth found in the distance learning environment in higher education.

The survey used for this exploratory research study was developed to be a tool used online via e-mail in order to find out more about the online learning environment. I wanted to be and feel a part of the setting within which online users interact. The fact that I chose to better understand students of color in the online learning environment exposed me to the real life situation reported in the literature: students of color in higher education are in the minority and in addition, experience a technology barrier to learning known as

the digital divide if they attend historically Black colleges and universities (HBCUs) as opposed to attending traditionally white institutions (TWIs). As Janesick suggests, I never stopped reviewing the literature during the course of my research (2004, p. 36). The researchers at Howard University's Distance Learning Lab recently provided this information:

Distance learning is hard: it's hard for instructors to implement; its current formats are not suitable for all students; and it's hard for administrators to fund. Nevertheless, HBCUs have achieved much to be proud of in their implementation of distance learning programs.

Distance Learning Courses

	2006	2007	Change	Percent
Active HBCUs	29	40	11	38%
All HBCUs	103	103		
Percent	28%	39%		

Percent HBCUs Offering Distance Learning Courses

Howard University Distance Learning Lab (2007)

There were unexpected implications for this research study when, as a researcher, I personally encountered the technology barrier that exists for students of color as I tried to collect a sample of students of color who had participated in the online learning environment. Janesick urges researchers to be "adaptable and flexible" to situations encountered during the course of their research (2004, p. 36). I accepted the difficulty of locating students of color who had completed online coursework as an opportunity for

better understanding of the population of students I chose to study rather than as a problem in data collection. What this meant going into the data collection portion of the research study was that my target demographic sample was more difficult to find and smaller than I had hoped for given the limited time available to doctoral students within which to complete their research study. What this meant for the results of the research was an additional emphasis on the importance of the observations and perceptions expressed by students of color. The online learning environment is building for this population of students, and needs to include the voices of students of color either in or in addition to the many mainstream distance learning studies in which the literature indicates the specific voices of students of color have been excluded.

Analysis and Discussion for Research Question Two

I wanted to use statistics to examine the data, and statistics come with a set of rules for reporting which includes the use of specific terms, such as “no significant difference,” for a study which I stated was not about difference. In comparing student responses to the survey questions, the goal was to determine the extent to which students found the online environment to be a place where they could more easily express opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom, and to determine the extent to which challenging or critiquing assumptions of white norms within online class discussions was important. Based on gaps reported in the literature, I wanted to know if challenging white norms was important to white students. “Scholars face tough questions when deciding how to investigate a phenomenon that is not accustomed to ‘seeing itself seeing’” (Dolan, 2006, p. 137). Analysis of white student responses provided a more complete analysis of survey

questions which asked participants if challenging or critiquing assumptions of white norms within online class discussions was important to them, and provided participants with an opportunity to share opinions regarding the extent to which the online environment provided a place where students may more easily express opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom. Including responses from white students did not provide a white canvas onto which I painted a study of minority student perceptions, rather I had the opportunity to observe whiteness as reflected by survey responses from white students. Thus, for triangulation and in response to the literature, I examined students of color as a group and white students as a group to determine the importance of challenging white norms in the online environment.

A combination of statistics using *t* tests and ANOVA, and themes extracted from open ended survey questions was used to answer the research question. In order to determine if challenging or critiquing assumptions of white norms was more or less important to white students as well as to students of color, *t* tests and ANOVA were used to examine responses from both white students and students of color using data collected from two survey questions (Appendix A):

1. In your opinion, to what extent did the online environment provide a place where you could more easily express your opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom?
2. Is challenging or critiquing assumptions of white norms within online class discussions important to you?

First, *t* tests and ANOVA are discussed for each survey question. Next, themes extracted from open ended questions are discussed. Finally, a summary discussion answers the research question.

Survey Question One

Data were analyzed using an independent-samples *t* test and ANOVA. No significant difference was observed in the data between the responses of students of color and white students to the survey question for the *t* test, $t(204) = -1.67$; $p = .10$. There were no significant differences among ethnicities when examined in ANOVA with the Levene test for groups of unequal sizes at $p > .05$, $F(4, 200) = 1.33$, $p = .26$; the effect size was small at .16. Though ANOVA demonstrated no significant differences between responses from students, it can be noted that among the student means, white students displayed the lowest mean ($M = 2.67$), indicating that for this sample, white students found the least opportunities in the online environment from which to easily express opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom.

The sample means for students demonstrated similar scores in finding opportunities in the online environment from which to easily express opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom. African American students found the online environment about equal to a face-to-face classroom, Asian students rated the online environment somewhat higher than the face-to-face experience, and other students of color found the online environment somewhat less than equal to a face-to-face classroom as a place from which

to easily express opinions or critiques addressing assumptions of white norms.

Although there were no statistically significant differences in survey question responses, there were some differences in means. One way differences in mean responses to this question may be interpreted is from the perspective of cultural preference for different styles of communication which may or may not be supported by the online environment. When minority groups are omitted from the literature surrounding online learning, it becomes difficult to examine their perspectives regarding their online learning experience. Since the literature provides evidence that little is known about minority group participation in online learning, it is prudent to begin to add this important stream of knowledge to the river of mainstream literature surrounding online learning in higher education.

Survey Question Two

Data were analyzed using an independent-samples t test and ANOVA. Some differences were observed between the responses of students the survey question for the t test, but they were not statistically significant at the $p > .05$ level, $t(204) = -1.94$; $p = .05$. There were no significant differences among ethnicities when examined in ANOVA with the Levene test for groups of unequal sizes, $F(4, 201) = 1.08$, $p = .37$; the effect size was small at .14. Students displayed similar means. It can be noted that white students displayed the lowest mean ($M = 2.74$), indicating that white students found challenging or critiquing assumptions of white norms within online class discussions to be the least important among the ethnicities examined, but not to a significant degree.

The sample means for students of color demonstrated similar scores indicating the importance of challenging or critiquing assumptions of white norms within online class

discussions. The overall mean scores indicated that students of color who answered the question found challenging or critiquing assumptions of white norms within online class discussions to be between neither important nor unimportant to minimally important. African American students, Hispanic students and other students of color rated the importance of challenging or critiquing assumptions of white norms within online class discussions neither important nor unimportant. Asian students rated the importance midway between neither important nor unimportant and somewhat important.

A theme extracted from the open ended questions on the survey helps explain the results obtained from the statistics for this survey question: students found opinions or critiques addressing assumptions of white norms were not usually part of the curriculum, and were typically not addressed (unless it was an appropriate subject for a particular class or class topic, such as multiculturalism), and found this fact to be either a problem (theme one) or welcome (theme two). The literature notes the importance of addressing white norms, but does not intersect this importance with the online learning environment. Critical whiteness studies caution about unconsciousness performance of whiteness (Dolan, 2006), therefore I strived for an expository tone in reporting data and described participant responses verbatim rather than interpreting them (Kvale, 1996, p. 127).

Discussion of Themes for Open Ended Questions

For the open ended questions, using the printed word rather than transcription from an oral interview provided participants with more time to reflect on answers than is typically the case (Kvale, 1996, p.172). Open ended questions on the survey (Appendix A), were designed to solicit responses in participating students' own words to provide depth and details from the personal perspective of participating students of color in order

to completely answer the research question. Collected responses resulted in three themes. Only the observations and perceptions of students of color were considered in the extraction of themes from the open ended questions. These responses were organized into themes and reflect the online through impressions and expressions from students of color.

Analysis and discussion of theme one. Students of color responding to the survey reported that opportunities to challenge perspectives presented by face-to-face classes dealing with student uniqueness and white norms may not always be easily translated into the online environment. This study looked at adult learners in higher education across genders and across a wide age range, thus, as articulated by the principles and practices of adult education, the personal circumstances, social roles, and learning style preferences are embedded in ways in which adults students learn best. These differences impact the difference in observations and experiences reported by students of color. The social role of a Hispanic student was a factor in selecting the online learning environment in this example:

Well, I took this online course as a means to get ahead as a new mother to a four month old baby. While I enjoy the readings a great deal and I also enjoy the participation the journal entries lend to the class, I do wish we met more than twice in the semester. Sometimes, face to face interaction with peers allows students to see the gravity of the situation of racism more closely, and unfortunately, I don't think this class allows for much time to focus on important issues dealing with this topic.

A common problem noted by students of color is that the online environment does not provide the same opportunities for personal interaction provided by face to-face classes.

Student observations reported that presentations in the online environment were not as powerful as face-to-face presentations and discussions of race related topics. Though technology integration and online learning removes some barriers of access and offers learning opportunities, limitations to online learning are revealed in general in the literature and specifically in this study. It is prudent to remember that these limitations may be due to specific course content or specific instructor practices, and that this study deals with how a relatively small number of people perceive personal experiences.

This theme addressed a conflicting point noted in the literature: whereas self-directed learning in the online environment focuses on individuals and does not emphasize the value of group perspective and communication that the literature suggests students of color appreciate (Flannery, 1995), online communication within the online environment has the potential to foster, promote, and provide a greater perception of group collaboration and community building than is typically experienced in traditional face-to-face classroom meetings (King, 2002; Merryfield, 2001).

The higher education instructional technology infrastructure currently exists as something to buy, and care should be taken that the digital divide not be allowed into higher education as a permanent gap. It may be time to examine the status quo of normalized practices in the online environment in higher education. As Bateson (1994) suggests, learning about others is always helpful in questioning familiar things. Analysis of this theme provided the perspective that some forms of learning activity, such as presentations and the power of face-to-face engagement, may sometimes be missing in the online environment as articulated by this African American student:

My classmates often did not take into perspective issues facing minorities

and even more frequently, people of poverty. Their beliefs had never been challenged because they had never had many experiences in their personal life. I did a class presentation where I used the materials of Ruby Payne aha! process to discuss issues of poverty and I think the class was stunned.

I don't think it would have been as powerful if it were online.

Care should be taken to include the voices of persons of color in the design, application, and use of the online learning environment in higher education, a perspective that appears to be missing from the literature.

The principles and practices found within andragogy helped identify situations in which adult learners learn best, such as appreciation of the ability to work at one's own pace. The need for more time to assimilate information and cultural concepts was expressed by students who speak English as a second language and demonstrates the personal orientation students bring with them to the online learning environment.

On one hand, the online environment may provide additional time to think and reflect, a benefit for adult learners as articulated in the principles and practices of andragogy. On the other hand, cultural concepts may be more difficult to understand if a person is not part of the mainstream culture, and lacking the language skills of the dominant culture could make it more difficult for students to communicate in writing, with written communication being a main feature of the online environment.

I went back to the researcher's journal (Janesick, 2004), I kept when I joined two graduate online classes as a participant observer a few years ago because I was disturbed by the comment: "Most of all, I never knew if anybody cared about the information I sent out." I found references in my researcher's journal that just as in face-to-face classes,

there may be dominant speakers who are bolder in online conversation. And just as in a face-to-face class, some students interact more with the instructor online via discussion boards and e-mail. Coursework structure varies greatly among instructors, therefore no generalization is possible. The point of sharing responses to the survey is that they are documented experiences of students of color in the online learning environment, and therefore pertinent to note. Although generalization is not suggested, it is possible that the experiences may be representative of what has been experienced by other students, and students did not consistently find the online environment to be a place where students of color could more easily express opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom environment.

Analysis and discussion of theme two. Students responding to the survey found the online environment to be a place where opinions or critiques addressing assumptions of white norms were not usually part of the curriculum, and were typically not addressed (unless it was an appropriate subject for a class or class topic, such as multiculturalism), a fact reported to be a problem. Theme two and three represented two sides to the same issue. In theme two, students wished to have the opportunity to address white norms; in theme three, the fact that white norms were not part of the course content was welcome. Each theme was analyzed individually.

Students who felt that the issue of white norms should be addressed as a part of regular online classes responded with comments including this one, shared by an African American student:

In my lived experience in all courses, face to face and those online, all of my white instructors except one have never or minimally discussed race,

class and gender inequity. Students of color that have discussed these issues have been ignored, considered sensitive or paranoid and ostracized. White students that have brought up these issues have been praised for their “progressive” thinking. In online learning environments, it is even easier to ignore race, class and gender. There is a false illusion of anonymity and equity in these virtual environments.

Other comments included the fact that white persons do not fully understand the perspectives of persons of color. The existence and transparency of white norms is a common theme in the literature; the discussion of how white norms translate into the online environment outside of specific classes, such as multiculturalism, is not a common topic when it intersects the online curriculum in higher education.

The principles and practices of andragogy, first articulated by Malcolm Knowles (1968) are still in active practice for adult education today. Andragogy notes that adult learners bring certain personal characteristics with them to their learning experience, which includes prior experiences, cultural attitudes, and personal values. Student interaction with the instructor and with the curriculum is mixed with the complexity of background knowledge, preconceived notions, and interest in the subject matter. Readiness to learn and whether or not the adult learner sees a relevant or practical application to their learning experience also plays a part in students determining if their learning experience meets their needs. Knowles observed that adults are more problem centered than subject centered (1980), and are more motivated by internal than external factors (1984a). Using andragogy as a framework, I concluded that the student responses for this theme were experientially and personally motivated.

The literature paints the online learning environment as race neutral; this study examined the observations and experiences of students of color through research questions developed around gaps noted in the literature for minority participation in the online learning environment. Contrary evidence was sought and presented in an effort to report and reflect authentic experiences for participants in the study. Are there dominant and normalized white cognitive practices (Flagg, 1998) in place in the online learning environment, or even embedded in andragogy? This study does not provide an answer to those questions; however, according to Flagg (1998, p. 8), we should not accept seemingly neutral criteria which may rely on white referents in formulating the norms and expectations that become criteria for white decision making. Therefore, it is imperative to solicit and attend the voices of persons of color regarding the online learning environment, thus the focus of this study on students of color who have participated in the online learning environment found in higher education.

Analysis and discussion of theme three. Students responding to the survey found the online environment to be a place where opinions or critiques addressing assumptions of white norms were not usually part of the curriculum and were typically not addressed (unless it was an appropriate subject for a class or class topic, such as multiculturalism), a fact reported to be welcome. Theme three represented one of two sides to the same issue as discussed for theme two. For this theme, students of color reported that they preferred to focus on the course curriculum and found discussions of white norms and race out of place for classes such as physics or mathematics. Students responding to this question expressed a desire to focus only on course content. These students found discussions of white norms already built into a social sciences, nursing, or education curriculum.

A problem may occur if life or learned experiences interfere with future learning. Prejudice would be an example, or an experience with one online class could influence a student regarding enrollment in future online classes. Knowles (1984a) articulated andragogy as a system of concepts rather than a theory. Using concepts grounded in andragogy to analyze this theme, we find that adult learners wish “to feel accepted, respected, and supported” with curriculum grounded in “a spirit of mutuality between students and teachers as joint inquirers,” (Knowles, 1980, p. 43). Andragogy is firm in the notion that students should play an active role in the planning, implementation, and analysis of their learning.

Summary Discussion for Research Question Two

Research question two examined the extent to which the online learning environment provided a place where students of color could more easily express opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom environment. No statistically significant differences were found between students of color and white students as a group or among individual ethnicities in answer to this question. The online learning environment was not significantly considered to be a place where students could more easily express opinions or critiques addressing white norms, and the opportunity to express opinions or critiques addressing white norms in the online learning environment was not reported as significantly important by any ethnic group. The observations and perceptions reported in open ended question responses to the survey demonstrated that differences existed for individual students responding to the survey on a personal level. One way we may interpret these differences is against the theoretical framework used in this study,

andragogy, which considers the various personal and social situations which are present for adult learners, and the ways in which adults learn.

This study examined observations and perceptions about online learning in general, and though not specifically focused on learning styles and the developmental tasks of the social roles of student participants, we may assume a variety of learning preferences and social role situations were present for students who participated in the study as they interacted within the online learning environment. Differences in learning preferences reflect personal experiences as reported by students in the open ended responses. Andragogy considers adult students from a holistic perspective, taking into consideration personal circumstances, social roles, and learning preferences.

Since student's individual experiences are unique and will vary due to curriculum content, instructor, and by personal experience and situation, no generalizability is suggested by this study. Readers may find themselves agreeing or disagreeing with the comments, discussion, and analysis based on their personal experience. As a result of the answer to this research question, I propose consideration of the learning preferences of students of color in the online learning environment as a suggested topic for further research.

Analysis and Discussion for Research Question Three

The answer to research question three was co-constructed by asking for advice from students who have participated in online courses and from instructors who have taught online by using a survey question and reporting their answers. The same themes emerged from the responses of students of color as from the instructors responses used for triangulation. The themes are similar in scope as discussed in the results section, but

were separated for inclusion of slight differences of emphasis. The first theme is more concerned with the anonymous nature of the online environment and the second theme centers around suggested ways classes could be structured. After presentation of each theme, both themes are discussed together since they are used together to answer the research question. Individual ideas and specifics were provided by individual responses to the open ended survey question and presented as results in Chapter Four.

Theme One

It is easier to ignore race, class, and gender in the online environment; therefore, it is important for instructors in the online environment to inform and remind students of the unique issues, aspects, and perspectives of all individuals.

Theme Two

Students' perspectives could be challenged by instructors taking a more constructivist approach in curriculum which more fully considers the situation and perspectives of all individuals.

Discussion of Co-constructed Themes

Much of the literature surrounding the online learning environment examines participants and instructors in a particular class or using a particular technology, compares particular classes or class sections one to another, compares a distance learning class to its companion face-to-face class, or compares distance learning students in a variety of ways; the literature seldom looks purposefully at students of color when examining online learning. This research received comment responses from students of color participating at the graduate level in a variety of classes and from a small sample of instructors of color for triangulation. The personal comments received from online

students and instructors of color who teach online answered the research question by providing observations, experiences, and specific suggestions as to how the online course environment could more fully consider the voices and experiences of persons of color. The verbatim observations and experiences reported in this study were representative of the sample, reflected individual responses, and describe and explain real experiences for the sample responding to the survey.

The responses bring to light both positive and negative issues in the online environment which have been experienced by students and instructors of color. The responses were instructive because they represented points of both agreement and difference between student and instructor perceptions and demonstrated a believable presence while providing particulars as well as insight which can be used in the development and presentation of online coursework to more fully consider the voices and experiences of persons of color. Although faculty and students were for the most part on the same page, there was an occurrence of dissonance between student and faculty perceptions found in the results. On one hand, Hispanic instructors responding to the survey and providing an open ended response to the question considered the minimization of race considerations a positive aspect of the online environment. And in responses collected for research question two, students found this fact welcome as well. On the other hand, in other responses from students collected for both research questions two and three, students of color wished to address and consider racial issues as part of their online coursework.

I looked for data which cast doubt on assumptions of the homogeneity of the online environment and presented them in the results section. Research by de Montes

et al. (2002) raises concerns that online course developers and educators include personal biases and assumptions in interactions with online students. Students also arrive for both face-to-face and online classes with biases and assumptions in place. I found and reported contrary assumptions about the appropriateness of discussions about race and white norms in the online environment, although neither group of themes from students and instructors contained enough responses to challenge each other's ideas. The themes and responses did provide a chance to explore and reflect on the reported experiences specifically for persons of color, which was the purpose of the study.

The discourse collected strictly from the open ended survey data was informative and answered the research questions from a subjective point of view and in particular, provided the opportunity for readers of this dissertation to reflect on the comments. The data provided information that directly but subjectively described observations about the online learning environment. Because online learning provides adults with increased opportunities for self-direction due to the personal nature of interacting from a personal computer at times and places convenient to them, the effectiveness of the online learning environment as it applies to the needs and preferences of adult learners is diverse, and the data provides evidence of both positive and negative perceptions across ethnicities. The contrary positioning of the online environment in higher education as race and culturally neutral (Bray 2006) or not (Chase, Macfadyen, Reeder, & Roche, 2002), as well as the findings from the data collected in this study suggests that there is a great deal about the intersection of ethnicity and the online learning environment in higher education that remains to be explored.

Conclusion

In this study, no significant relationships were found in the examination of the nature of the relationship between ethnicity and the variables of gender, age, and self-reported computer experience. The online learning environment was not conclusively found to be an environment where opinions or critiques could be expressed more easily than in a face to face classroom, and the importance to students of having the opportunity to challenge white norms in the online learning environment was not found to be significant. For the data collected for this research, there were no significant differences in responses found among ethnicities.

Students of color did not find the online learning environment to be a place where they could more easily express opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom environment. The data reported this opportunity as neither significantly important nor unimportant to students of color either as a group or by individual ethnicities. While I was surprised by this finding, the literature reviewed provided few studies for students of color and their interaction with the online learning environment to use as a basis for comparison. The data collected from students of color and shared in this dissertation are offered as a small step to correct the imbalance in the mainstream literature surrounding online learning, which rarely includes opinions and experiences specific to students of color.

Borrowing Berg's (2001, p.139) emphasis as he addresses the importance of reflexivity in researchers, "reflexivity further implies a shift in the way we understand data and their collection" This study provided "descriptive accounts ...that can be useful to make extrapolations to different cases" (McTaggart, 1991, p. 169). Providing personal

examples from students and instructors of color based on their interaction with the online learning environment provides “everyday examples” (Sheared, 1994, p. 33) of typed dialogue in order to help construct the online learning environment by specifically considering the observations and perspectives of students of color. The online learning environment is commonly considered to be relatively anonymous or private due to the individual and personal nature of the participation environment however, “adults learn best when their experience is acknowledged, when new information builds on their past experience, and when curriculum content is meaningful, problem-oriented, and practical (Caffarella, 1994, pp.24-25). An epistemological shift may be necessary for the online learning environment, a shift which necessitates the inclusion of multiple perspectives and representations that include the observations and perspectives of students of color.

Recommendations for Further Study

Although there was no data presented in this study to support the supposition of the digital other than as a part of the data collection process, the disparity I encountered between the traditionally white institutions (TWIs) of higher education and HBCUs and their varying ability to offer distance learning programs (Howard University Distance Learning Lab, 2007) was a point of conflict in the literature for me:

Less than one third of all HBCUs are currently offering any courses that are 100 percent online; and none of these HBCUs offer more than 5 percent of their courses online. Therefore the report encourages HBCUs to require their instructors to build fewer components and encourages the HBCUs to acquire more components from vendors and/or from other colleges and universities.

There is a current interest in students of color in the online learning environment by the historically Black Colleges and Universities, and McHenry and Person's paper from their presentation, *Historically Black colleges and universities: Catching the fast-moving online learning train* (2007), is eagerly awaited. Therefore the question becomes: How can more students of color in the higher education environment be provided with a bridge over the digital divide?

I suggest research into possibilities of institutional partnerships, collaboration, and sharing of online tools, resources, and services. Investigations into needed programs, and longitudinal studies of online course and program success as measured by completion and satisfaction by students of color are needed. Consideration of what is a needed program is a complex issue in higher education today as articulated in an excerpt from a current news bulletin:

There are certainly very conservative forces within the country that want to diminish funding for education generally, particularly funding for higher education. And there are certainly very conservative and indeed reactionary forces that want to diminish Women's Studies and Africana Studies as indeed they want to diminish the power and importance of women and people of color.

(Kinane, 2008)

More research on students of color in higher education and in the online environment is needed, and studies could start out locally and then combine online with larger studies spanning several institutions and programs. I would also suggest studies of learning preferences for students of color in the online learning environment by students of color

who have experienced online learning in order to fully grasp the issues which I have touched on and presented in this dissertation.

Andragogical practices encourage adult learners to engage learning from a personal level, and provide input about what and how they learn. When discussing andragogical practices, Knowles (1986) postulated the importance of experiential learning and self-directed learning experiences for adult learners. These experiences are more and more frequently are being offered via the online learning environment for both informal and formal learning. As observed in the literature, the online environment in higher education is expanding at a tremendous speed, and offers opportunities of access to adult learners who cannot easily attend campus based classes or who prefer the flexibility of participating in coursework from an off campus location. As well, online learning practices in higher education use a wide and growing range of technology mediated experiences such as online learning contacts (Boyer, 2003) to offer adult learners and educators collaborative experiences. Self-directed learning is a cornerstone of both andragogy and the online learning environment, providing expanding opportunities for adult learners in higher education. In order for educators to structure satisfying online experiences for adult learners who are self-directed, research is needed to better understand the individual perceptions of online learners in higher education.

This study combined my education, training, and interest in adult learning, curriculum development, and online program administration. An aspect in the literature which caught my attention as I continued to peruse the literature, learn, and grow throughout the dissertation process is one which I will present here for consideration of further research. It is a connection to andragogy which I had not been exposed to in my

graduate work in adult education: polyrhythmics.

The concept of consideration of curriculum in tandem with the importance of an African American adult learner's reality, polyrhythmics, was introduced by Sheared (1994), and describes the wholeness, uniqueness, and connectedness of individual African American adult students. Sheared (1999) adds the experiences of teachers and learners which are grounded in race, as well as in gender and class, to the adult learning experience based on andragogy, and considers these polyrhythmic realities important to the learning experiences of African American adult learners. The association between andragogy and the unique ethnic background of students through polyrhythmic consideration adds depth to the framework of andragogy. Sheared challenges adult educators to "find ways in which we can uncover and acknowledge the voice of each student" (p. 31, 1994). Seeking observations and perceptions about the online learning environment from students of color by using responses collected from a survey and presented in this dissertation is a step toward uncovering the voices of students of color participating in the online learning environment. Sheared (1994, p. 31) believes that "giving voice has become an aim of those who seek to provide students and educators with an opportunity to become engaged in critically reflective dialogue regardless of the subject matter." My hope is that the research presented in this dissertation has given voice to a sample of students of color regarding their participation in the online learning environment found in higher education, and will inspire other researchers to focus on the voices and experiences of students of color.

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Appendix A

Student Online Learning Experience Survey

Student Online Learning Experience Survey

First and foremost, I would like to thank you for your time. As a fellow graduate student, I know just how valuable a commodity that is, and it takes no longer than 15 minutes to complete this survey. This study is focused on the perceptions and observations of students of color, a presence which I had difficulty locating in the plentiful and prevalent literature surrounding the online learning environment in higher education. Your personal comments are critical to this research; please add your stories, experiences, and thoughts in the space provided.

Please be assured that the information you provide in the survey will not be associated with your specific demographic information in the reported results. Individual responses will remain confidential; I will be examining demographics and survey responses from a group perspective.

<p>1.</p> <p>Ethnicity:</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> Black or African American <input type="checkbox"/> Hispanic <input type="checkbox"/> Asian/Pacific Islander </div> <div style="width: 45%;"> <input type="checkbox"/> American Indian or Alaska Native <input type="checkbox"/> White <input type="checkbox"/> Or, please describe your ethnicity </div> </div>	<p>2.</p> <p>Gender:</p> <div style="display: flex;"> <input type="checkbox"/> Male <input type="checkbox"/> Female </div>
<p>3.</p> <p>Please Describe your Online Experience:</p> <p>How many online graduate level, for-credit classes have you completed during your Post Baccalaureate coursework? _____</p> <p>How many graduate level classes have you taken during your Post Baccalaureate coursework that were blended (online + face-to-face), or include web based activity, such as online discussions in addition to classroom attendance? _____</p> <p>Please rate the computer experience and expertise you brought to the online learning environment:</p> <div style="margin-top: 10px;"> <input type="checkbox"/> Novice - Limited computer experience going into graduate studies, limited Internet use in personal and professional life; often needed help with online assignments and activities </div> <div style="margin-top: 10px;"> <input type="checkbox"/> Comfortable - Often used the computer in personal and professional life before going into graduate studies, therefore confident with online assignments and activities; rarely needed help with online assignments and activities </div> <div style="margin-top: 10px;"> <input type="checkbox"/> Expert - Frequent and sometimes advanced computer use in personal and professional life (ex: Photoshop, creation of personal or professional Web page or presentations) before going into graduate studies; helped others or took a leadership role in groups with online assignments </div>	<p>4.</p> <p>Age:</p> <div style="display: flex;"> <input type="checkbox"/> 20-29 <input type="checkbox"/> 30-39 <input type="checkbox"/> 40-49 <input type="checkbox"/> 50-59 <input type="checkbox"/> 60-69 <input type="checkbox"/> Over 70 </div>

Thank you for completing the demographics portion of the survey. The next part of the survey asks briefly about your online experience in the higher education environment. Because learning is a personal experience, it will be greatly appreciated if you will include your personal observations and perspective as you answer the survey questions. I hope to reflect your *presence* in this research, along with your responses to questions I've posed. Your collective, candid comments will provide a welcome and needed addition to the literature. Please use as much space as you wish, and be assured that any stories you are willing to share will not be linked to your personal demographics in any way.

Please think about your online classes as opposed to face-to-face classes:

1. In your opinion, to what extent did the online environment provide a place where you could more easily express your opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom?

Not at all	Minimally	Online and Face-to-Face Environments Provided the Same Opportunities	Somewhat	To a great extent
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Please share a comment about why you answered as you did, and provide an example.

2. Is challenging or critiquing assumptions of white norms within online class discussions important to you?

Not important at all	Minimally important	Neither important nor unimportant	Somewhat important	Very important
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Please share a comment about why you answered as you did, and provide an example.

3. If you could offer distance learning instructors and designers advice about providing an online course environment which fully considers the voices and experiences of persons of color, what would it be?

4. Please share a story you consider specific to your experience as a student of color participating in the online learning environment, or comment about an experience or issue not addressed in the survey questions.

Thank you very much for your time. If you have any questions about this survey or research project, please contact me:

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Appendix B

Instructor Online Teaching Experience Survey

Instructor Online Teaching Experience Survey

First and foremost, I would like to thank you for your time. I know just how valuable a commodity that is, and it takes no longer than 15 minutes to complete this survey. This study is focused on students of color in the online learning environment, a presence which I had difficulty locating in the plentiful and prevalent literature surrounding the online learning environment in higher education. Your personal comments are critical to this research; please add your stories, experiences, and thoughts in the space provided.

Please be assured that the information you provide in the survey will not be associated with your specific demographic information in the reported results. Individual responses will remain confidential; I will be examining demographics and survey responses from a group perspective.

<p>1. Ethnicity:</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> Black or African American <input type="checkbox"/> Hispanic <input type="checkbox"/> Asian/Pacific Islander </div> <div style="width: 45%;"> <input type="checkbox"/> American Indian or Alaska Native <input type="checkbox"/> White <input type="checkbox"/> Or, please describe your ethnicity </div> </div>	<p>2. Gender:</p> <div style="display: flex;"> <input type="checkbox"/> Male <input type="checkbox"/> Female </div>
<p>3. How many online classes have you taught?</p> <p>How long have you been teaching online classes?</p> <p>Please describe your personal Online Experience: How many graduate level classes have you participated in <i>as a student</i> that were blended (online + face-to-face), or include web based activity, such as online discussions in addition to classroom attendance?</p> <p>Please rate the computer experience and expertise you brought to the online learning environment:</p> <div style="margin-top: 10px;"> <input type="checkbox"/> Novice - Limited computer experience going into graduate studies, limited Internet use in personal and professional life; often needed help with online assignments and activities </div> <div style="margin-top: 10px;"> <input type="checkbox"/> Comfortable - Often used the computer in personal and professional life before going into graduate studies, therefore confident with online assignments and activities; rarely needed help with online assignments and activities </div> <div style="margin-top: 10px;"> <input type="checkbox"/> Expert - Frequent and sometimes advanced computer use in personal and professional life (ex: Photoshop, creation of personal or professional Web page or presentations) before going into graduate studies; helped others or took a leadership role in groups with online assignments </div>	<p>4. Age:</p> <div style="display: flex;"> <input type="checkbox"/> 20-29 <input type="checkbox"/> 30-39 <input type="checkbox"/> 40-49 <input type="checkbox"/> 50-59 <input type="checkbox"/> 60-69 <input type="checkbox"/> Over 70 </div>

Thank you for completing the demographics portion of the survey. The next part of the survey asks briefly about your online experience in the higher education environment. Because teaching and learning are personal experiences, it will be greatly appreciated if you will include your personal observations and perspective as you answer the survey questions. I hope to reflect your *presence* in this research, along with your responses to questions I've posed. Your collective, candid comments will provide a welcome and needed addition to the literature. Please use as much space as you wish, and be assured that any stories you are willing to share will not be linked to your personal demographics in any way.

Please think about your online classes as opposed to face-to-face classes:

1. In your opinion, to what extent did the online environment provide a place where you could more easily express your opinions or critiques addressing assumptions of white norms as opposed to opportunities provided by a face-to-face classroom?

Not at all	Minimally	Online and Face-to-Face Environments Provided the Same Opportunities	Somewhat	To a great extent
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Please share a comment about why you answered as you did, and provide an example.

2. Is challenging or critiquing assumptions of white norms within online class discussions important to you?

Not important at all	Minimally important	Neither important nor unimportant	Somewhat important	Very important
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Please share a comment about why you answered as you did, and provide an example.

4. If you could offer distance learning instructors and designers advice about providing an online course environment which fully considers the voices and experiences of persons of color, what would it be?

5. Please share a story you consider specific to your experience as an instructor of color participating in the online learning environment, or comment about an experience or issue not addressed in the survey questions.

Thank you very much for your time. If you have any questions about this survey or research project, please contact me:

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Appendix C

Word List

Word List

Black	Never
Care	Never any discussion
Challenge	Never been
Challenged	Never had been
Challenging	Non-
Controversial	Not addressed
Did not	Not easily
Did not consider	Not sensitive
Did not intend	Not shared
Did not take into consideration	Opinion
Discuss	Perspective
Diverse	Prefer
Diversity	Racism
Dominant	Removes intimidation factor
Engage	Representative
Enjoy	Respect
Express	Sensitive
Gravity	Share
Identity	Translated
Important	Uncomfortable
Inform	Unique
Insist	Values
Issues	Voiceless
Minorities	White
Minority	

Appendix D

Example of Survey Responses to Open Ended Questions

Example of Survey Responses to Open Ended Questions

I felt that the instructor did not make himself available to my questions or concerns and I missed the classroom interaction. I also found that there were additional course requirements that might have been absent in a classroom based course.

I knew the individuals in my online classes and did not want my classmates to judge me. However, in one of my complete online classes, I felt fine with expressing my opinions because I did not actually know the people.

The written word can sometimes be misinterpreted because of the lack of verbal and body language.

I have had very negative experiences with online education, primarily BECAUSE of the lack of human contact. It is too easy to misunderstand tone of voice or make incorrect assumptions due to lack of facial expression. There is no replacement for “face-to-face” interaction.

My graduate classes were with a small cohort of 11 people who had all the same classes together all the time. My comfort level with them was the same online as it was face to face.

While online environments may encourage some people to express views they may not be comfortable with in person, I feel that without the feedback of a face-to-face encounter, I may actually be more cautious about addressing assumptions of white norms.

My classes have been partly online and partly live so I wouldn't say anything different online than I would in the classroom because I'll still have to see the instructor and my classmates in person. It might be different for students who take classes that are wholly online.

The online environment was not utilized very well for courses. In addition, students interacted online because it was part of the grade, not by personal choice.

Online offers maybe a little bit less of a chance to communicate than Face-to-face. While the online community is “anonymous,” I feel that not knowing my classmates physically prevented me from communicating at a deeper, more personal level. Missing the non-verbal feedback greatly affects my online communications. In any case, I'm always conscious that online communication is permanent. It can be copy and pasted and passed on. On the other hand face-to-face communications lack that permanence, so I'm more willing to take risks in face-to-face courses than online.

I am equally comfortable expressing my opinions online and face-to-face.

The class I was taking online did not include particular situations for this sort of discussion, so there was more opportunity in the face-to-face situations.

I speak my mind and to the topic, and do not have difficulty expressing my opinions.

My online classes required very little student-to-student interaction, so the question really wasn't germane.

I am already quite comfortable sharing my views in most classroom environments; however, I rarely critique others. I generally share ideas and provide positive feedback. I have not had such an experience but it is an assumption that most may feel more comfortable expressing opinions without a personal interaction.

Sometimes it's easier to gather your thoughts and express yourself more precisely online. When you have time to think and phrase things just exactly the way you want, to make a specific point. Like right now. :)

If you have an opinion, you should feel free to express it whether online or face to face. I am not a shy person, thus sharing my ideas, knowledge, etc. in an en vivo classroom is not an issue. However, that same trait is easily transferable to an online environment AND there is added convenience with online learning. I listen well, thus, both environments allow me to listen.

Online has the advantage of allowing me (anyone) to 'listen' and to 'think' a little longer before responding; a distinctly good learning situation.

I only completed one course that was entirely online. Also I knew the course participants as my program was a cohort and I had previously attended face to face classes with these individuals.

The classes I've taken online have been with very small numbers of students, we all know each other and being online did not make any discussions or comments more or less anonymous.

The subject of assumptions of white norms never came up

I am much more comfortable in a traditional, face-to-face environment. I enjoy the immediate feedback available in "live" settings and feel the impact of facial expressions, body language, and tone of voice is a valuable part of communication that is not always able to be replicated in an online setting.

About the Author

Marie Boyette is the academic program administrator and coordinator for distance learning at the University of South Florida. Marie received a B.A. (Magna Cum Laude) in Communication and a M.A. in Adult Education from USF. Current research revolves around her concept of Qualitative Research for online environments. Marie coordinates distance learning resources and technology services for university students and faculty, manages USF's Distance Learning Catalog, and is active in distance learning initiatives at the state and national level. She provides university wide research and develops, writes, edits, and publishes multi-media material to measure, reflect, and enhance distance learning student services at USF. Marie is active with face-to-face students too, and served in the inaugural President's Academy of Advisors program, managed the Bachelor of Independent Studies Program, and teaches the freshman student success course, *The University Experience*.