“Care and authenticity is something that I was seeking”: Mentoring experiences of African American undergraduate students studying agriculture at an 1862 Land Grant Institution

Kayla M. Harris

Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of

Master of Science
In
Agriculture, Leadership, and Community Education

Hannah H. Scherer, Chair
Antoine. Alston
Frank Shushok
Donna Westfall-Rudd

Wednesday, May 15th, 2019
Blacksburg, VA

Keywords: 1862 Land Grant Institutions, mentorship, African American agriculture, undergraduate experience, undergraduate matriculation
“Care and authenticity is something that I was seeking”: Mentoring experiences of African American undergraduate students studying agriculture at an 1862 Land Grant

Kayla M. Harris

ABSTRACT

Studies show that mentoring has a significant impact on the educational successes of minority students and the development of their personal and professional identity within their particular field of study. Within these mentoring relationships an environment is created to where students feel comfortable to discuss their various personal concerns that impact their matriculation through their undergraduate experience in a variety of ways. The purpose of this study is to document the experiences of undergraduate African American students majoring in agriculture while enrolled at a predominately white land grant institutions and explore opportunities for using mentoring as a tool and factor in assisting these students in persisting towards their undergraduate degree at Virginia Tech. The foundation of the study was based on Bean and Eaton’s Psychological Model of Retention and Rodgers and Summers’ Revised model of retention for African American students at PWIs. Findings from this study were articulated by students conceptualization of mentors as a supportive guide in contrast to procedural advising relationships, additionally how students have experiences mentorship with mentors with a range of identities; student interactions within their colleges and departments as well as their both indirect and direct mentorship experiences; their support, interaction and connection to the African American community on campus during their undergraduate tenure; and how the university’s bureaucratic structure has an impact on their experience as African American students.
“Care and authenticity is something that I was seeking”: Mentoring experiences of African American undergraduate students studying agriculture at an 1862 Land Grant

Kayla M. Harris

GENERAL AUDIENCE ABSTRACT

Mentorship has a significant impact on the personal, academic and professional development of student during their undergraduate experiences at four-year institutions, having a large impact on their personal identity as well as how they view themselves within their particular field of study. Within these mentor and mentee relationship an environment is created where both parties develop rapport and understanding among each in order to be able to discuss concerns and interest that they may have that have an impact on their entire undergraduate experience in a number of ways.

The purpose of this study is to document the experiences of undergraduate African American students majoring in agriculture while enrolled at a predominately white land grant institutions and explore opportunities for using mentoring as a tool and factor in assisting these students in persisting towards their undergraduate degree. The foundation of the study was based on two student development psychological models. Findings from this study were articulated by students conceptualization of mentors as supportive guide in contrast to procedural advising relationships, additionally how students have experiences mentorship with mentors with a range of identities; student interactions within their colleges and departments as well as their both indirect and direct mentorship experiences; their support, interaction and connection to the African American community on campus during their undergraduate tenure; and how the university’s bureaucratic structure has a impact on their experience as African American students.
Dedication

As much as I appreciated my support system I never knew until I started studying mentorship that I myself had an abundance of mentors that taught me so much and have to this day continued to be role models and support me to the fullest. I dedicate this thesis to the people that saw something in me before I saw something in myself. I dedicate this thesis to the individuals I am fortunate enough to call my mentors. I dedicate this thesis to the individuals who inspired me to bring my ideas and thoughts to life and go above and beyond to make a difference in whatever way I saw fit. I would not be the person and woman that I am today and where I am today without each of you and your dedication to me, my goals, and ambitions. I would not be comfortable with who I am and the views that I have of myself without you all setting an example for me and helping me develop the mindset that my journey is my journey and it is up to me to create it. From all the ups and downs your continuous support and willingness to help me navigate to all of my success going out of your way in a number of different fashions will forever mean the world to me. You inspired me to do the same for others students as I progress throughout my career. And with that I say thank you and I dedicate this to you all, my mentors.
Acknowledgements

There are many individuals that I would like to thank for the continuous support throughout this journey. First, I would like to thank God because he saw me through this entire process and never let me give up, even when putting a number of different obstacles in front of me. He equipped me with so much determination, passion and perseverance to complete this and has also helped me learn acknowledge the effort and work that I put into this.

Secondly, I would like to thank my major professor, advisor, and mentor, Dr. Hannah Scherer for the time that she devoted to making sure that I executed my ideas and passion into my research as well always supporting me in whatever I wanted to do. You never told me “no” and you always let me go beyond the boundaries regardless of what the norms were set to be. I would also like to thank my committee; without you all I would not have gotten this far and pushed myself past my comfort zone. I am forever grateful for you all and appreciate you all going on this journey with me.

Lastly, I would like to thank my family. To my support system thank you for all of the prayers and words of encouragement. Thank you for pushing me to take this journey and thank you for seeing it all the way through to the end. When I thought I could not do it, you all told me that I could. Thank for keeping me encouraged, your collective support meant the world to me throughout this experience.
Table of Contents

CHAPTER ONE: INTRODUCTION............................................................................................................. 1
Background and Setting: Diversity in agriculture at an 1862 Land-Grant Institution............... 3
Representation equity at Virginia Tech .......................................................................................... 3

Implications for mentoring of African American students at Virginia Tech ................. 8
Purpose statement and Research Questions ........................................................................... 9
Theoretical Framework ............................................................................................................... 10
Supporting the whole student ................................................................................................. 12

Prior Experiences ..................................................................................................................... 13
Student Experience ..................................................................................................................... 16

Climates at Predominately White Institutions ...................................................................... 19
Role of Mentors in supporting the whole student ................................................................. 20

Cross-race Mentoring: Mentoring across racial differences ........................................... 25
Student Retention ..................................................................................................................... 27

Bean and Eaton’s Psychological Model of Retention ......................................................... 28
Rodgers and Summers: Retention Model .............................................................................. 31

CHAPTER THREE: METHODOLOGY ............................................................................................ 35
Phenomenological Research Approach ................................................................................... 35
Research Questions ..................................................................................................................... 36
Reflexivity and Role of the Researcher ..................................................................................... 37
Research Design ........................................................................................................................ 39

Target Population and Recruitment ..................................................................................... 39
Study Participants ....................................................................................................................... 39

Data Collection and Instrumentation ..................................................................................... 41
Data Analysis ............................................................................................................................... 42

Trustworthiness ......................................................................................................................... 42

CHAPTER FOUR: RESULTS ........................................................................................................ 43
Research Question 1: Conceptualize mentoring ................................................................. 44

Theme 1: Mentors as a supportive guide and role model .................................................. 45

Research Question 2: Experience mentoring specifically mentoring within their department and college ................................................................. 50

Theme 2: Institutional Fit: Department’s Climate impact on African American Student Matriculation ................................................................. 51
| Theme 3: Self-Efficacy and Locus of Control: Positive interactions and support from African American Community Structure | 55 |
| Research Question 3: Response from institutional leadership | 62 |
| Theme 4: University Bureaucratic Structure: The negative impact on the African American student experience | 62 |
| CHAPTER FIVE: DISCUSSION AND CONCLUSION | 69 |
| Limitations of the Study | 77 |
| Recommendations | 78 |
| Recommendation for Practice | 79 |
| Recommendations for Future Research | 85 |
| APPENDIX A | 94 |
| APPENDIX B | 98 |
| APPENDIX C | 101 |
| APPENDIX D | 104 |
| APPENDIX E | 105 |
| APPENDIX F | 110 |
| APPENDIX G | 111 |
| Theme 1: Mentors as a supportive guide and role model | 111 |
| Advising as procedural | 111 |
| Defining Mentorship | 111 |
| Development of Biculturality: Student identify mentors that have a range of identities | 113 |
| Theme 2: Institutional Fit: Department’s Climate impact on African American Student Matriculation | 114 |
| Theme 3: Self-Efficacy and Locus of Control: Positive interactions and support from African American Community Structure | 116 |
| Theme 4: University Bureaucratic Structure: The negative impact on the African American student experience | 117 |
| University Bureaucratic Interactions: Good intentions don’t measure up | 117 |
| Intentionality: Representation in the campus environment | 119 |
List of Figures

Figure 1: Bean and Eaton’s Psychological Model of Student Retention (1999) 31

Figure 2: Rodgers and Summers’ Revised model of retention for African American students at PWIs (2008) 34
List of Tables


Table 2: Study Participant Demographics ........................................................................ 40
CHAPTER ONE: INTRODUCTION

As reported by Mondisa & McComb (2015), there is critical need for more scientists and engineers within the United States and populations such as women and minorities are being targeted to reach this goal. There is an extreme need for there to be an increase in African American undergraduate student retention within STEM education (Barlow & Villarejo, 2004). “The lack of African Americans in the field presents a complex challenge for science education” (Brown, Mangram, Sun, Cross, & Raab, 2017, p. 171). Many agree that this is a civil rights issue that arises as early as middle school for African American students (Tate, 2001; Alexander, Entwisle, & Kabbani, 2001; Maltese & Tai, 2011; Rampey, Dion, & Donahue, 2009). Due to societal oppression and marginalization there is a lack of exposure to science for African American students so once enrolled in college most African American students do not typically major in science fields; if they do, most opt out at higher rates compared to their other counterparts (Brown et al., 2017). In 2010, only 30.7% of African Americans completed high school physics and only 25.4% of them completed a combination of biology, chemistry, and physics courses (National Center for Educational Statistics [NCES], 2012). “Women, Native Americans, and other minority groups have historically been underrepresented in the agricultural sciences” (Moss, 2011). “There is a need for the agriculture industry to recruit gifted and knowledgeable college graduates to fill vital agricultural industry positions. Therefore, it is critical that agriculture colleges and universities recruit, retain, and pursue careers in the agricultural sciences” (Moss, 2011). According to DataUSA (2016), in 2016 a total of 1,222 agricultural degrees which are all under the umbrella of
STEM were awarded to African American students which was less than 5% of the total number of agricultural degrees offered that year to students in the United States. To address this issue, studies have shown that minority undergraduate students, including African Americans, are more influenced to stay in within their major as well as school when they have mentors to guide them through all the ups and downs throughout their undergraduate experience (Barlow & Villarejo, 2004; Thiry & Laursen, 2011; Moss, 2011). Mentors are defined and identified through their academic, professional, personal and intellectual support components as well as how the physically identify themselves (Thiry & Laursen, 2011). Mentoring has been viewed as a practice in which the primary purpose is to improve retention and graduation rates (Anderson, 1995; Dunn & Moody, 1995).

A mentor has a significant investment in their students’ personal development extending beyond the adequate attainment of degree requirements or the completion of a research thesis, but instead the relationships are characterized by the intertwining of professional and personal factors (Ramirez, 2012). These relationships are reciprocal and can result in the development of life-long and mutually beneficial relationships. Mentorship serves as an aid in the development of student academic and professional identity within their field of study and stems interest not only regarding the subject but the potential for future post-undergraduate and career opportunities (Thiry & Laursen, 2011). “While mentoring in an academic setting has routinely occurred during student advising and teaching sessions, students can benefit from a more focused and specialized mentoring environment” (Woirhaye and Menkhaus, 1996).
With the lack of African American faculty at predominantly white institutions (PWIs), I proposed that there is a need to develop networks of support for African American undergraduate students with the administrators, faculty, and staff that are already employed on campuses. What is crucial in developing these relationships is making sure it is understood what exactly is needed from mentors to generate beneficial and sustainable relationships. This pertains to the needs of African American students so that they can succeed within their undergraduate experience. The goal of this study was to better understand and develop methods to encourage and develop more cross-racial mentoring relationships between faculty and African American students studying agriculture at PWIs. The results of this study provide insight into how African American students studying agriculture at a PWI perceive and motivate themselves, both within in their departments and the campus community as a whole, through the support of mentorship. The findings of this study also highlight the needs of these particular students as they persist towards their undergraduate degrees. For this research study, the theoretical frameworks of Bean and Eaton’s Psychological Model of Retention (2000) and Rodgers and Summers’ Revised model of retention for African American students at PWIs (2008) were used.

Background and Setting: Diversity in agriculture at an 1862 Land-Grant Institution

Representation equity at Virginia Tech

The section below describes the report card grade for Virginia Tech as reported by the University of Southern California’s Race and Equity Center
Reported by the University of Southern California’s Race and Equity Center more than 900,000 blacks are enrolled at public colleges and universities around the United States (Harper & Simmons, 2018). Within the report, representation equity was the factor indicated as a concern regarding African American student enrollment at public colleges and universities in the United States. Representation equity is defined by Harper and Simmons (2018) as “the extent to which Black students’ share of enrollment in the undergraduate student population reflects their representation among 18-24-year-old citizens in that state (p. 2).”

The state of Virginia earned an equity index score of 2.04, which lands the state within the Third Quintile with an overall grade of a “C”. In reference to Virginia Tech, the report stated that the 1862 land grant university received an “F” in regard to the institution’s Representation of Equity as a result of having 4% of their student populations represent students that identify as African American, while in the state of Virginia 22.3% of the 18-24-year-olds identity themselves as African American (Harper & Simmons, 2018). This grade puts the institution at the bottom 20% Quintile and overall having an equity index score of 1.50. This is an important factor as it highlights the inequality in enrolment for African Americans students and how issues like this impact not only representation at Virginia Tech but also various career and professional fields.

*Background context of African American history and inclusion and diversity efforts at Virginia Tech*

In 1913 Floyd Meade, an African American helped created the original Virginia Tech mascot. At football games Meade walked a turkey on an orange and maroon leash,
spectators grew attentive to what was going on and began calling the team the “Gobbler” at this point is when the Hokie bird became a part of the institution’s traditions and culture. The first African American student, Irving L. Peddrew III was admitted into Virginia Tech in 1953. Charlie Yates was the first African American graduate of Virginia Tech, part of the class of 1958. Chiquita Hudson, Marguerite Harper, and Linda Adams were the first African American woman to attend Virginia Tech in 1966. Jerry Gaines was the first African American scholarship athlete in 1967. In 1969 John Dobbin became the first African American football player and Charlie Lipscomb became the first African American variety player on the basketball team at the institution. That same year Overton R. Johnson became the first African American faculty member. In 1995, Ronnie Stephenson served as the President of the Student Government Association; he was the first African American in the institution’s history to serve in that capacity. The list goes on and on about the accomplishments of African Americans at this institutions but when looking at the dates and assessing the time period for when all of these accomplishments that took place, several inequities arise that highlight the need to not only assess the institutional intentions and views of the African American community but also to gain more understanding of what is going on within it and how to better understand the needs of this group to reach further success and opportunities.

Against this backdrop, Virginia Tech’s Office of Inclusion and Diversity was founded in as an effort to develop strategic programing to promote and retain diversity throughout various entities of the university. One product developed from the founding of this entity was the 2013-2018 Diversity Strategic Plan (DSP). This plan specifically outlines the need towards growth and expansion within the entire Virginia Tech
community to support the institutions vision and goal of diversity (Virginia Tech Office of Inclusion and Diversity, 2018).

<table>
<thead>
<tr>
<th>College of Natural Resources &amp; Environment</th>
<th>Black or African American</th>
<th>Fall 2015</th>
<th>Fall 2016</th>
<th>Fall 2017</th>
<th>Fall 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College of Agriculture &amp; Life Sciences</td>
<td>Black or African American</td>
<td>84</td>
<td>91</td>
<td>91</td>
<td>131</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>2023</td>
<td>2040</td>
<td>1982</td>
<td>2257</td>
</tr>
<tr>
<td></td>
<td>Ratio</td>
<td>24:1</td>
<td>22:1</td>
<td>22:1</td>
<td>17:1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Diversity in agriculture at Virginia Tech**


Within this study we will define agriculture as degree programs within the College of Agriculture and Life Sciences and the College of Natural Resources and
Environment. African American students are underrepresented within these colleges Table 1.

The ratio of African American faculty to African American students in these colleges is an important consideration for diversity and inclusion efforts. Both the African American Faculty employment and African American student enrollment is based on the full-time student enrollment for the College of Agriculture and Life Science and College and Natural Resources and Environment as of Fall 2017 and Fall 2018 as reported by the Office of Institutional Research (2018) at Virginia Tech. As of 2018 in the College of Agriculture and Life Sciences (CALS) overall, 5.3% (35) of the total number Full-Time Faculty are African American whereas 81.1% (536) are white (Facts and Figures, 2018). Breaking this down, 2.8% (6) of the total number Tenured and Tenure-Track Instructional Faculty are African American whereas 79.6% (172) are white; 8.3% (28) of the total number of Administrative and Professional Faculty are African American whereas (290) 86.1% are white; and 1.2% (1) of the total number of research faculty are African American whereas 59% (49) are white. In the College of Natural Resources and Environment (CNRE) overall, 0.7% (1) of the total number Full-Time Faculty are African American whereas 81.1% (53) are white. Breaking this down, 1.4% (1) of the total number of Tenured and Tenure-Track Instructional Faculty are African American whereas 88.7% (63) are white; 0% (0) of the total number of Administrative and Professional Faculty are African American whereas (3) 75% are white; and 0% (0) of the total number of research faculty are African American whereas 81.5% (53) are white.
Implications for mentoring of African American students at Virginia Tech

These types of ratios for agriculture at Virginia Tech are not unique and have been linked to particular issues surrounding mentoring of African American students. “Due to the disproportionately low number of African American faculty at PWIs, African American students have few same-race role-models or mentors available to them” (Dahlvig, 2010, p.372). Dahlvig (2010) additionally states that African American faculty working at Predominately White Institutions cannot become solely responsible for mentoring and advocating for African American students. The author continues to state that within higher education, until there can be a better racial balance at Predominantly White Institutions faculty and staff need continue to advocate and embrace the various ideas of equity and inclusion.

Mentorship helps students thrive. It allows for questions to arise such as: How does mentoring currently work as well as how does mentoring need to change? Zooming in on what is going on at Virginia Tech, what really matters in mentorship for African American students? Based on the context of Virginia Tech in regard to African American student enrollment, questions arise about the inequity regarding the intentional structure and arrangement within the institution that continuously cycles these low statics. If we are trying to mentor the whole student then we have to find these African American students and really understand what their needs are and how to better help them matriculate through their undergraduate experience. But it goes beyond the demographics and zooms into the historical context and historical representation of the institution as well the environment that they are in that was created by the impacts of these factors. What are those things about the community that create the community
students are in and how can mentorship be a factor in changing that? Cross-race mentoring should be implemented and sustained in order to help establish effective and beneficial mentoring relationships (Dahlvig, 2010).

Purpose statement and Research Questions

The purpose of this study was to better understand the needs of African American undergraduate students studying in the College of Agriculture and Life Sciences and College of Natural Resources and Environment based on their experiences while enrolled at Virginia Tech, assessing the role that mentorship had played. The following questions are the research questions for this study:

1. In what ways do African American undergraduate students at Virginia Tech enrolled in the College of Agriculture and Science or College of Natural Resources and Environment conceptualize mentoring in relation to their life as a college student?

2. How do African American undergraduate students at Virginia Tech enrolled in the College of Agriculture and Science or College of Natural Resources and Environment experience mentoring specifically mentoring within their department and college?

3. African American students, what type of response can institutional leadership offer to initiate and support effective and sustainable cross-racial mentoring to assist in addressing the needs of African American
students in the College of Agriculture and Life Sciences or College of Natural Resources and Environment that are not being met

Theoretical Framework

Bean and Eaton’s *Psychological Model of Retention* (2000) includes several factors that have an impact on student retention ultimately having an impact on their ability to persist towards their degree. Bean and Eaton (2000) believed that factors that impact retention within in higher education deal with the individual and the psychological processes that individuals cycle through in order to make decisions that have an impact on their retention. As defined by Bandura (1997) and Bean and Eaton (2000), self-efficacy is an individual’s perception of their ability to perform a task as well as to achieve certain outcomes. Based on observations and experiences in the past, individuals develop an understanding of to what capacity they are able to maneuver and work through certain interactions.

A revised version of Bean and Eaton’s (2000) model, Rodgers and Summers’ *Revised model of retention for African American students at PWIs*” (2008) keys into the psychological understandings and experiences of African American students that are enrolled at predominately white institutions. The model was developed through an approach to address African American students’ attitudes towards their institution, academics, self-efficacy, motivations, achievement goals, attributions, and ethnic and bicultural identity development (Rodgers & Summers, 2008). This model highlights how African American students perceive and experience issues of retention.
The theoretical framework for this study, Rodgers and Summers’ (2008) Revised model of retention for African American students at PWIs highlights the psychological process that African American cycle through during their experience and academic matriculation at a PWI. The model highlights the students pre-encounter prior to coming to college; their initial encounter once arriving to college; their immersion and emersion within the campus community; their process of personal internalization based on interaction and experiences while in college; and the outcome of their personal internalizations which lead to persistence or re-cycling back to their mental processing point (Rodgers and Summers, 2008). This revised model focuses a lot on the student psychological processes and the resulting outcomes that are developed based on those experiences ultimately having an impact on their persistence towards their degree. Within this study, this model was used to interpret how participants discussed their experiences within their academic colleges and departments as well as the experience within the campus environment as whole when identifying as an African American undergraduate student studying within agriculture.
CHAPTER TWO: REVIEW OF LITERATURE

Supporting the whole student

Understanding how to support students holistically is essential in making sure that they successfully persist and matriculate towards their degrees. Prior experience and identify play a role in how students articulate their needs in addition to how mentors and educators are able to develop solutions towards success and matriculation.

Astin’s I-E-O College Impact Model

Astin’s (1991) model has been used in several studies to assess student behavior as a result of their environments (Strayhorn, 2008). Alexander Astin’s (1991) Input-Environment-Output College Impact Model student outcomes such as learning and degree persistence are functions of two factors that include both inputs, demographic characteristics such as race and gender, and environment, experiences and interactions in colleges. The model highlights experiences and understands that what students bring to campus from home and other interactions before college impact their experiences within their campus environments whether they are positive or negative influences. These influences later have an impact on students’ resulting experience in college whether that is graduating or dropping out of school. The environment has some sort of impact as a result of their undergraduate experience.

In relation to mentoring, this framework is helpful in understanding the role that mentors play in assisting students towards reaching and overcoming certain outcomes. The output portion is crucial when thinking about mentorship highlighting cognitive,
psychosocial and person/social outcomes (Strayhorn, 2008). Strayhorn (2008) defines cognitive outcomes within the realm of intellectual growth, career choices, spiritual awareness and appreciating diversity. Psychosocial outcomes are defined within the realm of enhanced self-esteem, realistic self-appraisal, health behaviors, independence, collaborations. Satisfying productive lifestyles. Personal/social outcome are defined in the realm of effective communication, clarified values, leadership developments, meaningful interpersonal relationships, social responsibility, and personal and educational goals. By understandings what experiences and understandings students bring to college with them mentors will be able to better assist in resulting outcomes.

Prior Experiences

To highlight the input portion of Astin’s I-E-O Model (1991) which encompasses students prior experiences Tyler, Boykin, Boelter, and Dillihunt’s (2005) Examining mainstream and Afro-cultural value socialization in African American households’ study is referenced to supper Astin’s (1991) claims. The particular target population of this study was low-income African American families. Two major factors that relate to this idea of how prior experience influence students’ perceptions as well as how they experience and handle situation particularly once they are enrolled into undergraduate institutions. “… learning takes place not only outside of the classroom context but also in way that espouse specific cultural themes not fully appreciated in traditional public-school contexts” (Lee, Spencer, & Harpalani, 2003, p. 292) and “…learning orientations and teaching strategies that build upon such cultural themes are introduced in from academic contexts” (Foster, Lewis, & Onafowora, 2003, p. 292). The authors explain that students acquire behaviors through the process of socialization. Defined by Arnett (1995)
socialization is the process by which people acquire behaviors and beliefs of the social world or culture based on where they live or where they are from. The definition associates with what individuals are familiar with or what they have been exposed and become accustomed to. This exposure to cultural views and understandings rest within the family as parents typically have the authority of telling children where they are going to spend their time as well as facilitate those interactions within those settings (Delgado-Gaitan, 1992; Harris, 1999; Maccoby, 1992). Within Tyler, Boykin, Boelter, & Dillihunt (2005) study it was found that the particular selected target population considered low-income African American parents to be advocates for socialization as they promote, monitor and sustain culture-based values (Tyler, Boykin, Boelter, & Dillihunt, 2005).

When thinking about how this impacts African American students when they come to college one may think about the values, moral, and understandings that most parents would want their children to carry with them outside of their household (Tyler et al., 2005). Whether it was manners, saying “yes sir” or “no sir”, not going to places alone and etc. From a mentorship perspective, the role that this idea of socialization plays it is important to have students think back on how their mentor or mentorship figure played a role in where they are today but how they go there or event where they would like to go based on their understanding of the world around them. It is also important for a mentor to understand the experience and understandings that these students bring to the table prior to arriving at college which 1) builds a sense of trust and transparency and 2) eliminates any sort of bias especially due to being at a PWI where more than likely there will be racial differences among the mentor and mentee.
Ag and STEM Identity

There is a lack of African Americans majoring in Agricultural and STEM fields. Typically, the decision to pursue a career or at least a developing interest is decided in high school but, unlike their majority counterparts, on average African American students 1) do not have exposure to science and 2) are unlikely to have the prerequisite courses necessary for college success (Brown et al., 2017). This is due to societal oppression to opportunities within this field that leads to minimal exposure to learning more about opportunities in Agriculture and STEM fields. Identity is a key focal point towards understanding why there is a lack of African American representation within Agriculture and STEM fields. Once young adults are about to understand and accept their identity then they will be able to overstep the realities of oppression (Brown et al., 2017).

In Brown et al. (2017) study, Representing Racial Identity: Identity, Race, the Construction of the African American STEM Students to explain how “…how individuals take on the dynamic possibilities of self and overcome the realities of embedded racism, scholars posed identity as a way to understand how the “who” a person is can become a source of empowerment (Brickhouse & Potter, 2001; Calhoun, 1994; Freedman & Appleman, 2008; Ginwright, 2000; Moore, 2008; Norman, Ault, Bentz, & Meskimen, 2001; Proweller & Mitchener, 2004)…. prescriptive perspective where society determines an individual’s fate, identity has been cast as a medium where the
individual has agency to take on the dynamic or limited possibilities that lie before him or her” (Lee & Anderson, 2009; Nasir, 2011)” (Brown et al., 2017 p. 1778-179).

Within Gee’s (2000) *Representation of Identity Interpretive Framework*, the first point explains how we define identity whether it is by a natural or physical source, power through institutional participation or interactions, or discourses or labels (Gee, 2000). Within the second point of the framework, Gee (2000) defines it as the time frame in which identity is analyzed which determines an individuals’ option for how they identify themselves (Brown et al., 2017). The third point trajectory is defined as individuals’ personal goals and motivation that shapes who they are (Wenger, 1998). In relationship to identity in Agriculture and STEM this framework provides guidance towards understanding how student develop their own personal identity and how that influences them to pursue things in life. If mentors could target their focus more into the areas that cause students to either not feel or be qualified within these field there should be a relative increase in interest, helping to turn areas of weakness to areas of strength. As a result, there should be a direct increase in the number of students that identify as African American within Agriculture and STEM fields.

*Student Experience*

When students get accepted into a university it is the responsibility of the administration to help develop and graduate students that are psychologically and academically sound (Lett & Wright, 2003). This involves creating, providing and sustaining environments that are geared towards efforts of inclusion and diversity. Additionally, Lett and Wright (2003) state that this should be a goal within the mission of the institution with supportive evidence of appropriate initiatives. A student’s
undergraduate experience in college is fifty percent dependent on the environment that they put themselves and then fifty percent dependent on the environment that institutions intentionally develop for the sake of their students that enroll themselves within the institutional community (Lett & Wright, 2003). A student’s experience in college is critical to their development of their personal growth as well as the resulting outcomes once they graduate. A major part of a student experience is the environment that they find themselves in throughout their undergraduate experience (Astin, 1991). The intentional development of a campus environment involves understanding the student’s need and how that student hopes to interact within that environments to address that need to progress forward (Strange, 2003). From where they do their homework, where their classes are, cultural centers, where they eat, their residences hall as well environments where they participate in extracurricular activities, these environments play a role in a student’s experiences while at school.

Higher education institutions in the United State have definitely changed with the increasing diversity among public, private and community-based institutions (Strange, 2003). But how far have they really come? In particular, African Americans that are enrolled at PWIs are faced with issues such as hidden racism, alienation, unintentional acts of discrimination, intentional discrimination, forms of intimidation, and problems associated with financial aid and dependence (Lett & Wright, 2003). These factors as well as other have a large impact on African American student’s matriculation throughout their undergraduate experience. With this in mind, a challenge that many post-secondary educations and institutional leaders are facing is creating and maintaining spaces within campus environments that attract, satisfy, and retain students in order to help institutions’
reach their missions and goals as well help students matriculate to the levels they wish to be at (Strange, 2003). It is up to them to ensure that student’ experiences on campus are intentional and impactful in a number of different ways that result in numerous positive and beneficial outcomes. Strange (2003) outlines four different components of campus environments: physical-natural and synthetic features and designs of the campus (landscape, terrain, placement of buildings and etc.), human aggregates- collective characteristics of participants ( the arrangement of people in relation to common traits), organizational- organized structures that serve specific goals ( decision making, rules, rewards, and complexity) , and construction- collective perceptions of people in a setting (attributions of campus press, culture , and climate.).

In regard to mentoring and better understanding the needs of African American students it is key to focus on the human aggregate and organizations components of the campus environments. These two components have a critical impact on how mentorship can help students cycle through the institutional impacts that have a large effect on their matriculation and experience during their undergraduate experience. Strange (2003) stresses that to be able to understand the impacts of an environment one has to understand the inhabitants within it. More intentional thought needs to go into how environments on campus actually welcome and create community for these students but also how faculty and staff at these institutions are trained to ensure that these environments remain that way. Strange (2003) continues to state that having more flexible environment creates more dynamic opportunities for change while static environments resist change. According to Hage and Aiken (1967) organized environments will reflect various characteristics that can be inferred to reference to their degree of complexity,
centralization formalization, stratification, production and efficiency. ore intentional thought and development needs to go into the organization of these environments. From the particular discussion that are brought to the table to making sure the right individuals are being brought to table to express concerns, share viewpoints and determine plausible solutions and finally ensuring that the expectations are met within the outcomes. As result this should lead to more interactions among faculty to help be voices of authority for students.

Climates at Predominately White Institutions

“An institution is responsible for the healthy development and achievement of its student body regardless of race or ethnicity” (Lett & Wright, 2003 p. 189). Under the Morrill Act of 1862, public universities were built to expand access and success for white majority state residents that were not enrolled as well as had access to private institutions (Harper & Simmons, 2018). The establishment of these universities allowed for low-income and underserved white majority students to be enrolled. On January 1st, 1863 the Emancipation Proclamation was issued, which freed all enslaved individuals within rebellious states (Harper & Simmons, 2018). This is an interesting intersect for the fact that slaves were being freed to whom the majority were black, and instead of making the focus on them ensuring that they well acquired citizens the focus was to ensure that majority white residents had access to an education and educational resources. Which as a result laid the preconceived foundation inequity within education in the United States.

Many higher education institutions have historically been inaccessible to African Americans (Dahlvig, 2010). Although Congress legally opened access to all higher education institutions to African Americans in the 1960s, for decades these students have
still suffered the inequity within the campus climates and traditional educational pedagogy. As a result this has created a cycle of continuously neglecting to develop and sustain inclusive environments that cause marginalized students to be unable to matriculate and develop within (Harper & Antonio, 2008; Hughes & Howard-Hamilton, 2003.) “At PWI’s, African American students may not have access to a mentor who is a person of color. As PWI’s seek to effectively support a diverse student body, providing desirable mentors for diverse student groups may be a challenge” (Dahlvig, 2010, p. 370). According to Lett and Wright (2003) African American students that attend a PWI often expresses feelings of isolation, on-acceptance, and rejection.

Role of Mentors in supporting the whole student

Defining Mentorship

Metaphorically mentors can be seen as vehicles for adaptation and integration into students’ academic and social communities, helping the students develop in many different facets (Bean and Eaton, 2000). They encourage students to view their lives in different perspectives and lenses in order to succeed and achieve positive outcomes (Bean and Eaton, 2000). “Studies have shown that access to a mentor can contribute towards a student’s academic achievement and retention” (Redmond,1990; Schwitzer & Thomas,1998). Mentoring has been viewed as a practice that offers students the opportunity to adapt and implement active coping strategies for dealing with the high and low brought to surface for the student while in college (Bean and Eaton, 2000). Having access to a mentor can be a large attribution towards a student’s academic achievement and retention (Redmond, 1990; Schwitzer & Thomas, 1998). Barker (2007) and Spence...
(2007) noted that mentorship is a multifaceted relationship where mentees receive career advancement, personal support, role modeling and advocacy. Spence (2005, p. 371) continues to state that “Mentors provide guidance, supports, and direction to proteges who may lack the foresight, exposure, or intuition needed to ascertain goals”.

“Effective mentoring involves not only the transfer of academic skills, attitudes, and behaviors but a level of interaction, trust, and communication which results in a psychosocial comfort that empowers a student with the knowledge and confidence to grow academically and socially, regardless of the environment” (Redmond, p.91, 1990).

Promoting quality mentorship of undergraduate science students has emerged as a critical strategy for the successful recruitment and retention of students within the sciences (Ramirez, 2012). A fully developed mentoring relationship requires a significant amount of reciprocity for mentors to create a safe and comfortable environment where student mentors can move from a state of dependence to independence. “Mentoring is a personal and reciprocal relationship in which a more experienced (usually older) faculty member acts as a guide, role model, teacher, and sponsor of a less experienced (usually younger) student or faculty member” (Johnson, 2007, p. 23).

Mentoring within agricultural and STEM sciences have been rated as a vital factor not only towards undergraduate retention in the field, but also matriculation towards pursuing advanced degrees in the field (Barlow & Villarejo, 2004). When defining what mentors are, the authors describe a relationship between undergraduate students and senior principal investigators that focus on the career and professional benefits within the scientific field. Within this relationship, the authors state that there needs to be a significant balance of personal, professional and academic discussions and
understandings so that the professional development focus is not overshadowed (Barlow & Villarejo, 2004). “When a mentor validates a student’s strengths and perspectives, the student can become more successful” (Bean and Eaton, 2000).

Mentoring relationships result in numerous personal and professional benefits. Within these relationships the mentors become familiar and involve themselves indirectly in to the academic and social communities of the students helping them to develop in a number of different facets of their person growth (Bean and Eaton, 2000). According to previous work, mentorships play a role in the retention of undergraduate African American students within agricultural and STEM education programs, whether it is through research, programming, and curriculum development (Barlow & Villarejo, 2004). Studies have shown that there are several factors that impact student retention within the agricultural and STEM academic programs and educational fields. Mentors have a significant investment in their students’ personal development (Ramirez, 2012). Successful undergraduate mentoring requires a variety of skills that are developed through practice and experience. These factors include personal, professional, and intellectual components (Thiry & Laursen, 2011). Not only are these factors which impact students, but they are developed through student-mentor relationships.

There is a distinct connection to how mentorship impacts the retention of undergraduate African American students within agricultural and STEM education programs. Barlow and Villarejo (2004) reported on a program that was centered around identifying student goals; finding methods to assist students in reaching their goals was the primary focus of program activities. The study highlighted that this was accomplished by supplemental workshops/instruction, research experiences, and academic and personal
advising as it improved a large majority of minority student’s success. The results of this study showed that various components listed above within the program had a large impact on the gradual increase in academic retention and success of students that were part of the program (Barlow & Villarejo, 2004). The evidence collected by Barlow and Villerejo served as a great example regarding the various benefits that were a result of the use of a variety of retention techniques and approaches on how programs are developed based on a need. The study also exemplified how mentoring can be performed not only in a one on one setting but within a group as well.

An excellent undergraduate research experience results in students gaining a sense of identity within the scientific community (Moss, 2011). In experiential learning, faculty-to-student mentorship is critical to the academic and career success of agriculture science undergraduates (Retallick and Pate, 2009). This involves a sense of self-development and an understanding of the role students not only play within this experience but also implicated outcomes and benefits as a result. Mentoring involves helping students achieve their future endeavors especially if they have never had those experiences (Thiry & Laursen, 2011).

There are educational benefits to undergraduate research experiences, including benefits towards comprehensive development, career interest, professional development as well as personal emotional support and guidance (Thiry & Laursen, 2011). For example, when undergraduate students participate in summer internship programs, they create valuable experiences that assist students in obtaining a job or postgraduate opportunity (Moss, 2011). Undergraduate research programs are beneficial to student development and matriculation within the field because of dual scientific and educational
aspects of mentoring (Thiry & Laursen, 2011). There are elements of supplemental instruction and programs that are beneficial to students due to the various practices of mentorship. From the study, students stated that when provided with intellectual support and clear guidance within their academic and research studies as well professional socialization and emotional support, students can feel that they are part of a community where they can thrive and be successful within the workforce of this field (Thiry & Laursen, 2011).

From various other studies, results have shown that students have reported that through mentoring relationships they were able to be exposed to various career paths and advanced study opportunities that they otherwise may have never been exposed to (Ramirez, 2012). There is a need for an increase in minority undergraduate students within agricultural and STEM fields with a significant focus on the retention and matriculation of those students in those fields (Barlow & Villarejo, 2004). To accomplish this goal, mentorship will play a crucial role in developing the future agricultural and STEM educators and scientists of the future.

“Effective mentoring involves not on the transfer of academic skill, attitude, and behaviors but a level of interaction, trust and communication which results in a psychological comfort that empowers a student with knowledge and confidence to grow academically and socially, regardless of the environment” (Redmond, 1990, p. 191). Redmond describes mentoring as an act of providing wise counsel and in her study uses planned mentoring as a method to assist in African American student retention and successful matriculation within systems where they are considered marginalized and at a disadvantage. Redmond’s (1990) article describes the outlined methods for developing
beneficial mentor program and interaction within academic setting targeting African American students that are enrolled at predominately white institutions. In Redmond’s (1990) study the author discusses that mentorship within academic settings should be outlined and planned to incorporate and ensure interaction with departments and colleges as well as organizations to help support students’ academic and social interactions while enrolled in school.

The use of mentoring in higher education has increased in a number of different facets (Bean and Eaton, 2000). Having a mentor can encourage student to take on different perspectives, achieve goals but overall helping student realize that they are in charge of their own destiny (Bean and Eaton, 2000). Overall mentors help students understand and believe in themselves in a positive viewpoint during their matriculation through the various facets of college (Bean and Eaton, 2000).

Cross-race Mentoring: Mentoring across racial differences

Race and culture play a large factor in understanding African American students’ experiences at a predominately white institution. “In particular, minority students on a predominately white campus need resources that can help them experience that can help them experience the campus in the positive, productive way” (Schweitzer & Thomas, 1998). The historically racist culture of the United States provides a challenge for White faculty and staff wishing to mentor ethnic minority students (Johnson-Bailey & Cervero, 2002). Layered societal oppression has a large influence on how mentees select and identify mentors as well as how mentor select and identify mentees (Smith, 2007). This includes the role that an individual’s race plays in their ability in developing trust and establishing a beneficial relationship (Dahlvig, 2010). “White mentors have a burden to
overcome traditional stereotypes or other negative images historically propagated by racism” (Dahlvig, 2010, p. 373).

Mondisa and McComb (2015) mention that mentoring can be a practice used to assists minority students, such as African Americans, with persisting in STEM majors which can ultimately be a motive to increase diversity in educational settings. However, there is a lack of understanding about what is occurring in African-American mentoring relationships and how mentors advise and support their mentee students. Mentoring has been connected to increased college retention for ethnic minority students at predominantly White institutions (Campbell & Campbell, 2007; Nora & Crisp, 2007; Smith, 2007). When mentoring African American students, it is important for mentors to understand how a mentors’ cultural centricity impacts how mentoring practices are implemented and practiced (Harris, 1999). Harris states that formal structures and training in cross-cultural mentoring for faculty is necessary to ensure that student mentees have accessible options to potential mentoring (Harris, 1999). Dahlvig (2010) interviewed African American female students in regard to their experience at a PWI and the type of mentorship that was available to them while enrolled. The author stated as a result of their findings that “this study provides evidence that cross-race mentoring can effectively guide African American students through the sometimes tumultuous life at PWIs, but Caucasian mentors need to be committed to the relationship-building process and to African American students in order to yield meaningful outcomes personally and for the institution”. This is used as an effort to eliminate ethnocentric approaches toward relationship development and encourage more in-depth interaction where relationships are built on qualities and understandings.
Cross-race mentoring is beneficial for the mentors, mentees, and institutions in a number of different ways (Dahlvig, 2010). It is a method that once implemented can positively connect and encourage students to be more open understanding diversity and inclusion efforts and issues. Institutional administrators should prioritize and develop strategies and methods to better encourage intentional mentorship relationship between white faculty and staff and African American students through thoroughly structured programs (Dahlvig, 2010). With the development of these programs’ institutions should also provide ongoing training and support.

“Cross-race mentor training, institutional support for faculty of color, and providing a constellation of mentors for students are practical strategies to increase the retention of African American students at PWIs, which may eventually widen the pipeline for future faculty of color. Increases in faculty of color may helpfully impact institutional policies and campus climate, as well as providing more role models and desirable mentors for students of color” (Dahlvig, 2010, p. 393).

Theoretical Framework

Student Retention

Undergraduate student retention is defined as an institution of higher education’s ability to retain a student from admission until successfully reaching graduation (Berger & Lyon, 2004). “The disparity in graduation rates demonstrates the ongoing need for exploring the experiences of African American students in an effort to increase degree attainment” (Dahlvig, 2010, p. 370).
Tinto’s (1975, 1988) *Expanded Retention Model* was sociologically based and described a three-stage process through which students become socially integrated into the college culture (Tinto, 1975, 1988). The model is based on the idea of integration which included both academic and social, which will determine whether or not they will stay in school or drop out (Tinto, 1975, 1988). The model highlights both “goal commitment” which pertains to the personal goals of the students and “institutional commitment” which pertains to the mission and goal of institution both of which have to be upheld to ensure successful retention and meaningful experiences. Overtime these models have expanded to highlight more specific areas that impact student retention within student development theory.

**Bean and Eaton’s Psychological Model of Retention**

Based on Tinto’s (1975, 1988) *Expanded Retention Model* Bean and Eaton’s (2000) *Psychological Model of Retention*, Figure 1 outlines several factors that have an impact on student retention. Students enter into institutions with psychological attributes that are shaped by certain experiences, abilities, and self-assessments (Bean and Eaton, 2000). “Among the most important of these psychological factors are self-efficacy assessments –‘Do I have confidence that I can perform well academically here?’; normative beliefs- ‘Do the important people in my life think attending this college is a good idea?’; and past behavior- ‘Do I have the academical and social experiences that have prepared me to succeed in college?’.” (Bean and Eaton, 2000). Individuals’ attitudes lead to the development of intentions which as a result have an impact on their behavior
(Fishbein & Ajzen, 1975). The authors state that institutional fit and loyalty lead to a student’s intention to persist which as a result them obtaining a degree.

Participation and interaction within higher education is a voluntary action that is based on whether or not individuals’ make the decision to remain in or leave college. “The student then interacts with the institution and its representatives in the bureaucratic, academic, and social realms while continuing to interact with people (parents, spouses, employers, old friends) outside of the institution” (Bean and Eaton, 2000, p. 75).

“Retention rates are the collective result of individual decision” (Bean and Eaton, 2000, p. 73). Bean and Eaton believed that factors that impact retention within in higher education deal with the individual and that psychological processes that that individual cycles through in order to develop decisions that have an impact on retention. As mentioned by Bandura (1997) self-efficacy is an individual’s perception of their ability to act in a certain manner as well as too intend certain outcomes. Based on observations and experiences in the past individuals develop an understanding of to what capacity they are about to maneuver, and work thought certain interactions. When individuals reach a point where they understand things and feel comfortable in those understandings they gain in self-confidence and develop higher levels of personal encouragement to persist towards achievement (Bean and Eaton, 2000). An additional result of developing this encouragement to persist is initiated as academic and social self-efficacy increases, concluding in academic and social integration also increase (Bean and Eaton, 2000).

Interactions and assessments in the institutional environment can be viewed as linear but are almost certainly circular and reciprocal (Bean and Eaton, 2000). For example, positive self-efficacy related to studying (“I am good at studying for tests”) can
lead to good grades, affirming a stronger sense of integration into the academic community having a more positive outlook of one’s self within their academic environments. This feeling of successful adaptation to the academic environment can result in an increase in motivation to be more academically driven, leading to an increase in academic successes as well as academic self-efficacy (Bean and Eaton, 2000). Adjustment is a process by which individuals fit into a new situation (French, Rodgers, & Cobb, 1974). Adaptation is a process by which individuals learn to cope with a situation whether or not they fit in it. Bean and Eaton highlight the coping behavioral theory which proposes that an individual adjust to a given environment and situations by assessing and adapting to that environment (Bean and Eaton, 2000). Locus of control makes connections to how individuals interpret and understand how outcomes and past experiences are generated from internal and external forces. Internal locus of control refers to how individuals sees themselves as instrumental factors within their own success and failures. External locus of control refers to how an individual refers to how their successes and failures are due to chance or fate (Bean and Eaton, 2000).
Figure 1: Bean and Eaton’s Psychological Model of Student Retention (1999)

Rodgers and Summers: Retention Model

Based on Bean and Eaton (2000) Retention Model, Rodgers and Summers’ Revised model of retention for African American students at PWIs keys into the psychological understand and experiences of African American student that are enrolled at predominately white institutions. The model Figure 2, was developed through an approach to address African American students’ attitudes towards their institution, academics, self-efficacy, motivations, achievement goals, attributions and ethnic and bicultural identity development (Rodgers & Summers, 2008). Bean and Eaton (2000) suggested that there was a need to an appropriate retention model to support African American student that attend predominantly white institutions as decreases in retention are a result of a lack of understanding what supportive networks are of need for these students as well as a lack of understand for student’s motivation and self-systems in
relation to their racial and ethnic identity. This model highlights how African American students perceive and experience issues of retention.

Within the Rodgers and Summers’ model the sections that would be impacted by mentorship include belongingness and integration, goal orientation, locus of control, intrinsic and extrinsic motivation, enjoyment of learning and internal locus.

Belongingness and integration involve African American students feeling as if they are a part of the larger campus community at a PWI; this includes in both social and academic setting where students feel as if they are making some sort of contribution to the environment they are immersed in (Rogers & Summers, 2008). Mentorship could aid in making sure that these students know the various networks and other communities that would help the students benefit in a number of different ways throughout their matriculation within college. Goal orientation is associated with a student’s psychological processes where they are setting goals and achieving them. Mentorship plays a role within this as a mentor could assist students within the goal setting process, whether that is determine short-term versus long-terms as well as clearly establishing any personal development goals as well.

Locus of control highlights a student individual ability to have control over the instances, encounters and situations that take place in their lives (Bean and Eaton, 2000; Rodger and Summers, 2008). Associated with a student psychological process mentorship plays a role as mentors help students understand how to take control of situations that are going to impact their lives whether it is positive or negative. Mentors help student assess and analyze these situations so that they can make decisions that best suit them (Barlow & Villarejo, 2004; Thiry & Laursen, 2011)). Intrinsic and extrinsic
motivation is a factor within a student psychological process that involves students being engaged in a task or activity for awards and acknowledgement (extrinsic motivation) or for personal enjoyment and admiration (intrinsic motivation) (Bean and Eaton, 2000; Rodger and Summers, 2008). Mentorship plays a role in this as mentors are able to help students determine what both their extrinsic and intrinsic motivations are so that they are able to make align those with the students professional and academic as well as person goals, beliefs and aspirations for themselves (Barlow & Villarejo, 2004; Thiry & Laursen, 2011). Considered a factor of an individual’s psychological outcome enjoyment of learning and internal locus is associate with how individual perceive their interaction and commitment within a situation and encounters (Bean and Eaton, 2000). Watt (2006) concluded that the psychosocial developmental needs of African American students was aligned with racial identity development and infers that same-race mentors are more likely to ensure the necessary conditions are implemented within environments to facilitate growth. In relation to mentoring this involves mentors providing a sense of motivation and encouragement to their mentees that highlights things that they are skilled in as well as things that they need to work on (Moss, 2011; Thiry & Laursen, 2011).

Lastly the development of a bi-culturality is considered an intermediate outcome that is largely supported within mentorship. What is constantly misunderstood about mentorship with that your mentor has to look just like their mentee and what is not always true. What is important is that both the mentor and mentee are about to co-exist within the community that they are a part of and that they understand one another building trust and vulnerability between one another.
Figure 2: Rodgers and Summers’ Revised model of retention for African American students at PWIs (2008)
CHAPTER THREE: METHODOLOGY

Phenomenological Research Approach

The foundation of the study was based on a phenomenological qualitative research approach (Creswell, 2014; Creswell & Poth, 2017). Phenomenology allowed for a first-hand interaction and understanding of how these student interactions within their academic and professional field of interest. By using this method of data collection, there was better understanding of the needs within agricultural education to better encourage and help sustain African American students by using mentorship a retention and support mechanism. Phenomenological research in depth seeks to understand what an experience means to individuals who have experienced them and they themselves can provide a descriptive comprehensive understanding of it (Moustakas, 1994). “The empirical phenomenological approach involves a return to experiences in order to obtain comprehensive descriptions and that proves the basis for a reflective structural analysis that portrays the essence of the experience” (Moustakas, 1994, p. 13). Within phenomenological research the analysis is developed through the interest of the researcher based on a particular problem or topic.

Human science research questions have particular characteristics: 1) the reveal the essence and meaning and human experience 2) uncover and focus on the qualitative before the quantitative factors in behavior and experiences 3) engage the total self if the research participant, sustaining personal and passionate involvement 4) does not seek to predict or to determine causal relationships 5) clarified by careful, comprehensive descriptions, vivid and accurate understandings of experiences (Moustakas, 1994).
The purpose of taking a phenomenological approach to this study was to ensure that all student interviewee expressed concerns and offered suggestions towards the effective development and understanding mentor and mentee relationships specific for African American students enrolled at PWI particular 1862 Land Grant institutions like Virginia Tech. The purpose of this study was to better understand the needs of African American undergraduate students studying in the College of Agriculture and Life Sciences and College of Natural Resources and Environment based on their experiences while enrolled at Virginia Tech, assessing the role that mentorship had played. From this study the hope is for mentoring to become a tool and mechanism that can play a large role in influencing and inspiring students within academic, personal and professional identities specifically within African American student communities at predominately white institutions.

Research Questions

The following questions are the research questions for this study:

1. In what ways do African American undergraduate students at Virginia Tech enrolled in the College of Agriculture and Science or College of Natural Resources and Environment conceptualize mentoring in relation to their life as a college student?

2. How do African American undergraduate students at Virginia Tech enrolled in the College of Agriculture and Science or College of Natural Resources and Environment experience mentoring specifically mentoring within their department and college?
3. African American students, what type of response can institutional leadership offer to initiate and support effective and sustainable cross-racial mentoring to assist in addressing the needs of African American students in the College of Agriculture and Life Sciences or College of Natural Resources and Environment that are not being met?

*Reflexivity and Role of the Researcher*

I am a 25-year-old African American female. I am a second-year graduate research assistant in the Agricultural, Leadership, and Community Education Department at Virginia Tech. I grew up in a third-generation farming family and for the longest time, I had no interest in pursuing any type of career in agriculture. But it was my experiences and exposure to seeing individuals that looked like me within the STEM and agricultural fields that gained my interest. A lot of my interests were stemmed from my mentors and how they helped me figure out not only what my passion within this field but also my strengths and weaknesses that would allow me to see how I could make a difference.

I have experienced several instances within my academic and professional career where I was apart or saw a lack of African Americans as well other diverse ethnic within the classroom and workplace. In a field that caters to people of all races, cultures, and genders and backgrounds why is there one majority taking over and leading it? I am a firm believer in that change most efficiently implemented by those who have experienced it and they should share their passions to encourage those that look up to them to pursue similar if not the same endeavors. These viewpoints stemmed from my experience in various summer research programs and internships. Some catered to increasing minority involvement within the field where others focused on bringing attention to major issues
that did not receive the necessary attention that they most definitely required. In all these experiences, I received a mentor and whether the relationship was good or bad, I took something away from that experience that made me not only appreciate the field that I wished to pursue a career in but I also saw how I wanted to make my mark not only bringing diversity due to the color of my skin but also my understanding and way of thinking.

There is a strong need for more diversity within these fields as the world is forever changing and is becoming more diverse by the day. Many of the most beautiful cultures and customs around the world are influenced and impacted by agriculture. In this study, I will be exploring how mentorship influences underrepresented undergraduate students, most notably, African American students to pursue academic endeavors and future postgraduate and careers in the various areas within agricultural sciences field.

Prior to this study an autoethnography was completed which highlighted the needs of African American graduated student studying at a PWI highlight how advisors should take on more a mentorship role to better assist in the navigation of that experience to support the student holistically beyond just academic. By using Rodgers and Summers: Revised model of retention for African American students at PWIs (2008) and Mezirow’s (1990) Transformative Learning Theory findings with were able to help support the needs to explore further into how mentorship support African American undergraduate students in a similar way who as the same time may have had a broader extent of needs.
Research Design

Target Population and Recruitment
The target population for this study was undergraduate African American students enrolled full time and studying in the College of Agriculture and Life Science and the College of Natural Resources and Environment Virginia Polytechnic University classified as sophomores, juniors, and seniors. The populations at these institutions are based on the admitted current enrollment as provided through university/institutional data. “There are no in-advance criteria for locating and selecting the research participants” (Moustakas, 1994, p. 107) beyond these target characteristics. The study was advertised through various listservs and personal contacts. Students were selected based on being able to have met the criteria of the study as well as for maximum variability based on departments. Participants within the study were informed and provided all the detailed information regarding the nature and purpose of the study (Moustakas, 1994). Participants were also be informed that they are allowed to withdraw from participating with the study at any time (Moustakas, 1994). Participants were compensated with monetary funds for their participation in the study. They were given $10.00 if they only completed one interview, $20.00 if they completed two interviews, and $50.00 if they completed three interviews.

Study Participants
With recruitment assistance through various academic departments and campus partners nine study participants studying in both the College of Agriculture and Life Sciences and the College of Natural Resources and Environments were selected to
participate in the study. A range of student participants for various targeted academic departments was selected for this study. Participants were selected based on self-identifying as African American, their graduation classification (must have been a sophomore, junior, or senior) and their willingness to participate in the study. Within the study there were four sophomores and five seniors who participated, representing 5 different academic departments. Within this study the departments were not listed in order to protect the identity of the participants. Table 2 provides a demographic summary of each of the participants.

Table 2: Study Participant Demographics

<table>
<thead>
<tr>
<th>Participants</th>
<th>Pseudonym</th>
<th>College</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sharde</td>
<td>CALS</td>
</tr>
<tr>
<td>2</td>
<td>Michelle</td>
<td>CALS</td>
</tr>
<tr>
<td>3</td>
<td>Kacey</td>
<td>CRNE</td>
</tr>
<tr>
<td>4</td>
<td>Hope</td>
<td>CALS</td>
</tr>
<tr>
<td>5</td>
<td>Zoe</td>
<td>CALS</td>
</tr>
<tr>
<td>6</td>
<td>Grace</td>
<td>CALS</td>
</tr>
<tr>
<td>7</td>
<td>Aliyah</td>
<td>CALS</td>
</tr>
<tr>
<td>8</td>
<td>Diamond</td>
<td>CALS</td>
</tr>
<tr>
<td>9</td>
<td>Blair</td>
<td>CRNE</td>
</tr>
</tbody>
</table>
Data Collection and Instrumentation

All participants within this study would be required to submit a consent form prior to their participation that outlines the role that they contribute to within the research.

“The investigators also provided detailed information regarding the nature and purpose of the study in response to co-researchers’ questions prior to selecting research participants; also, during the study and following the analysis of data” (Moustakas, 1994). Individual interviews were used to assess each student experience through a series of questions. Each study participant participated in three individual interviews. One preliminary interview and two other follow up interviews. Student participants were asked the same questions. The purpose of the first interview was to gain insight on experiences of African American students studying in the College of Agriculture and Life Sciences and College of Natural Resources and Environment and how they perceive and utilize mentorship as a student both as Virginia Tech as well as in their perspective colleges and departments. The purpose of the second interview was to ask participants to discuss their overall experience while enrolled at Virginia Tech, this included their academic department as well as the overall campus community as a whole. The purpose of the third interview was for participants discuss their experiences with individuals that have had an impact on their experience while enrolled in their college and department as well as their recommendations for faculty and staff within their college and department so that they can better support their needs as an underrepresented student. Within this study semi-structured interviews were conducted using a standard protocol which developed based on the a priori propositions in Appendix A.
Information from the interviews were recorded with a tape recorder. All recordings were stored on a Google Drive and USB both having a case-sensitive password. Responses from the interviews were be recorded on an excel file which were stored in both Google Drive and USB, both having case-sensitive passwords.

**Data Analysis**

Recordings were transcribed and open coded relevant portions of the transcripts using the research questions and a-priori propositions as sensitizing constructs. Analysis consisted of grouping codes into categories and developing themes based on trends in the data. Within this portion of the study is where it was determined what the nature of this particular phenomena and what exactly participants needed in order to be successful during undergraduate experience. All of the data analysis came from the statements from the student participants.

**Trustworthiness**

The reliability of a study is to ensure that participants are gaining something from it, which as a result that will have a large impact on their future endeavors (Creswell, 2014). “The validity of this study is to ensure the method and instructions of the study are the same across the board for all participants and researchers.” Human science research studies are guided by ethical principles and understanding (Moustakas, 1994). Trustworthiness helps researchers determine the findings of the study to be credible, transferable, confirmable, and dependable (Lincoln and Guba, 1985). Within this study credibility is supported by how confident the qualititative researcher is in the truth under covered within the research study’s findings (Lincoln and Guba, 1985). From previous research completed by the researcher the findings were highly credible. Credibility was
also applied to the member checking process that took place following the completion of transcription as well through continuous debriefing with the Senior Researcher. Memoing methods were used to check assumptions and credibility of the findings to support analysis. Additionally, findings were determined to be credible through the triangulation of the interview questions. Transferability is identified through how the researcher defines the findings to be able to be applied in various other different contexts (Lincoln and Guba, 1985). In this study transferability was very applicable within the context of this research as previous studies support the implication of the study as well as the findings are able to be applied to various related situations to support future outcomes. Confirmability refers to the neutrality of the findings of the studies due to the information provided by the study participants (Lincoln and Guba, 1985). Pertaining to this particular study confirmability was identified through using a recorder to record responses and coding those exact responses of the participants, keeping that information secured with a password. By synthesizing the finding and developing themes the confirmability of the study was also identified. Dependability refers to the how well the study could be replicated and once complete how consistent the replicated study’s results would be compared to the original findings (Lincoln and Guba, 1985). In reference to this study if replicated there is a possibility that results may not be exactly the same but due to the content and trends within the literature there is a high possibility that there may be a recurrence of themes... The overlap within the finding also supports the dependability as well as prove the validity of this study.

CHAPTER FOUR: RESULTS
The purpose of this study was to better understand the needs of African American undergraduate students studying in the College of Agriculture and Life Sciences and College of Natural Resources and Environment based on their experiences while enrolled at Virginia Tech assessing the role that mentorship had played. The results of this study zoom into how African American students within these colleges perceive and motivate themselves both within in their departments as well as the campus community as whole well through the support of mentorship. The findings of this study also highlight the needs of these particular students as they persist towards their undergraduate degrees. For this research study, the theoretical work of Bean and Eaton: *Psychological Model of Retention* (2000) and Rodgers and Summers: *Revised model of retention for African American students at PWIs* (2001).

**Research Question 1: Conceptualize mentoring**

Addressing the first research question, “In what ways do African American undergraduate students at Virginia Tech enrolled in the College of Agriculture and Science or College of Natural Resources and Environment conceptualize mentoring in relation to their life as a college student?” Student participants were asked to discuss their perceptions of mentorship, past, and current experiences with mentorship. Participants were also asked to share their viewpoints on how mentorship differed from advising and discuss individuals they identify as mentors. Student participants expressed how they not only define mentorship but identified characteristics of mentors that apply to where they are in life currently as well how a mentor could be beneficial for them through their progression during their undergraduate experience. Findings uncovered students’
interactions with mentors if they had one as well how the initiation of those relationships took place.

**Theme 1: Mentors as a supportive guide and role model**

**Defining Mentorship.** Within this data we found that the student participant had various similar understandings and viewpoints of mentorship and how it is supposed to and has benefited them in the past, present and future. Students define mentors as individuals that they have one on one interaction and relationships with and to whom are able to see their true potential. Zoe defined a mentor as “someone that I can go to not only about like my academic or like professional life or plans, but also my personal issues that I'm going through…” Blair stated that a mentor was “someone who can help you along the way and guide you in whatever path you're supposed to end up in, in life. Someone usually that's older as more experienced than you.” Sharde believed that “a mentor is somebody who you can constantly look up to….within any situation….somebody who can like kind of empathize with what you're going through or yeah, can also be a resource for you to and provide, um, kind of some sense of direction may soon as you feel lost or so you just need comfort.” She continues to state that a mentor is “someone who very resourceful... Empathetic...I just feel like somebody who's also as trustworthy because, um, you want to feel like your mentor has your back and any situation or you can talk to them about anything or they maybe just understand what you're going through.” Aliyah stated that she views a mentor as “someone that's kind of like a leader or someone that, um, basically that you can look up to and help guide you.” Michelle personally identified a mentor as “... somebody that guides you to your point of
success... provides support and the appropriate resources so that you have a smooth process... for any questions and problems that arise.”

Participants identified mentors as being individuals who are able to be continuously invested and supportive within their lives during their undergraduate experience. Michelle continues to describe her relationship with one of her mentors “I've been communicating with her since freshman year and she's helped with some applications, club interest, making sure I'm okay grades, all of that. And she's in CALS as well.” Based on the findings from student experience and interactions with mentors they mention that mentors provide opportunities as well as resources that align with individual their goals and endeavors. Lastly, students mention that mentors are understanding and care about their well-being so that they are able to reach success to their highest potential. When asked to describe an ideal mentor for herself where she is currently in life Diamond stated “I guess somebody who, I can talk to whenever I had my moments are when things starting to get rough. For somebody who like, you know, kind of like be my therapist at the same times as well as being, you know, supportive of what I do and like somebody who keeps inspiring me to keep going.”

Within the findings of this study student participants listed various characteristics that they identified within mentors as well would potentially want out of a mentor. Sharde mentions “I just think the biggest... quality in a mentor is somebody who's supportive and resourceful.” Grace stated the following when listing characteristics of a mentor “they're resilient, truthful, they care about people around.” Kacey followed up by stated “I think characteristics of like a really good mentor is someone who is like humble because I think sometimes when you're working with people who have like a lot of skills,
a lot of knowledge, it's easy for them to try to relate everything you're telling them to what they've already done.”

Some continuously mentioned characteristic in the data include students identifying mentors as being all around role models that help them reach academic success throughout their undergraduate matriculation. Zoe mentioned that for her a mentor would be “...something to look up to or strive for personally.” The student participants continuously emphasized that mentors have a large impact on them as well as provides a large amount of support that aid through their undergraduate experience. Zoe continues to mention that by her finding mentorship she saw a drastic change in her mindset towards her academics “So I wouldn't say that I was like failing like my GPA wasn't like a 1.0 and I came to MANNRS and now I'm at a 3.5… I wasn't a struggling student academically, but I just wasn't very connected or present.”

Advising as procedural. Within this study when asking student participants about their viewpoint of the role of advisors and mentors as well as how they differ, they responded in a number of different ways discussing how the differences of the roles have a large impact on student interactions and perceptions in number different ways. Sharde expresses her perception of how she differentiates an advisor from a mentor below.

“I feel like a, in some cases an advisor may be somebody, I don't want to say maybe somebody you aren't as comfortable with or maybe more, but like in a professional setting or something, I feel like maybe some things that you can go to your mentor with you may not be able to go to your advisor with and maybe even vice versa. Um, but I think that's the biggest difference. I feel like they're more of a, I don't know, like you're
going to them for like to get to get things done and mentor. You may be trying to work things out through like a mentor or trying to get to a decision with a mentor.”

Aliyah stated, “I would say an advisor is a person that you can go to. Like for me personally, like my advisor, like I always talked her about my classes are like, she kinda like basically tells me like what I need to do to kind of like get to where I need to be.” Similar to Aliyah several other participants identify advisors as individual that give directions to them on how to progress through their various academic programs and to whom them mainly have a professional relationship with. She continues to state, “I'm more like go to my advisor about things like, regarding just making sure that I'm on track and like seeing what she can give me.” Within Kacey’s perception of the role on an advisor she highlights that “advisor they kind of have a process they want you to go through and they kind of advice you through this pre made process.” Aliyah stated that her perception of an advisor was that they “kind of making sure you're on task.” In comparison to mentorship this puts a large hinderance on how the development of more personal relationships are established where students are able to express their needs, concerns and interests in holistic manner that demonstrates how these things have an impact on their ultimate experience and performance in the classroom, “mentor relationship is a closer bond.” Within this discussion Michelle expressed her feeling towards how advisors are cognizant about this idea of the holistic student “they're not really present through all the, um, stuff in between.” She states this saying that some advisors at times do not see beyond what has to get done within the classroom in order for student to obtain their degrees.
Development of Biculturality: Student identify mentors that have a range of identities. “Being a black woman walking into the class full of white males, like I dunno, I just feel like as I think about it maybe too much” (Hope). Within this study the findings suggested that there are different ethnic identities that are associated with how individuals identify themselves with the context of the Virginia Tech campus environment. These identities also support how individuals navigate through spaces within the campus communities as well as how they identify mentors.

“I think we talked about it earlier, like the fact that the department is very like cis [gender] kind of white male. They do have some minorities... there's an Asian man, Eh, there's two Asian people and then… I think there might be one black person, but I don't know. I haven't, I have yet to really meet any black faculty or staff directly or in person from my department…. I met Grad students from the college who were minorities and African American but not faculty” (Kacey)

African American students tend to flock to African American faculty/staff for mentorship and advice through their undergraduate experience and beyond. “…they automatically can relate to my experiences without me having to explain them. But… there are mentors who I've had here who aren't, who don't identify as African American and have still been able to…be a support for me too.” Within the finding the majority of the student participants expressed that they found mentorship within African females (4 participants) where another portion of the participants expressed that they found mentorship in white faculty and staff identifying as either male or female (3 participants) and lastly a small portion mentioned that they had not really found mentorship (2 participants).
Within this study various gender identities recognized among mentors. These genders include African American females, white Caucasian female, and white Caucasian males for example “Mr. Jones...is an African American female” (Zoe) and “I feel like Ms. Robins (White Caucasian female) advises like most of the... women because she's a woman …. So, like we all like look up to her, but then having like a black woman…” (Hope).

Research Question 2: Experience mentoring specifically mentoring within their department and college

Addressing the second research question, “How do African American undergraduate students at Virginia Tech enrolled in the College of Agriculture and Science or College of Natural Resources and Environment experience mentoring specifically mentoring within their department and college?” Each participant was asked about their experience being African American in the College of Agriculture and Life Sciences and the College of Natural Resources and Environment as well as their overall experience being African American at Virginia Tech. Student participants discussed both their direct and indirect experiences with mentorship within the two colleges. They discussed whether or not they experienced any sort of implication of racism as well as the resources they found to navigate those experiences. Students discussed their relationship with African American faculty and staff inside and outside the department. Additionally, they discussed their perception of themselves as African Americans studying in the field of agriculture and the type of legacy that want to be known for.
Theme 2: Institutional Fit: Department’s Climate impact on African American Student Matriculation

Department Climate: Experiences CALS/CNRE. Findings from the study confirm that the student participants have had a variety of experiences within CALS/CNRE that have an impact on how they view themselves within the field of agriculture as well as an African American student at Virginia Tech. Student participants experiences both positive and negative experiences, for example feelings of social isolation within the classroom with peers as well a positive interaction with professors. Student participants mentioned the following “Professors ... share and like pass on their knowledge to their students is very rewarding” (Zoe) and “…if I ever go see my teachers, like during office hours and stuff like that, they're always really helpful” (Aliyah).

Grace mentioned the lack of diversity particular the lack of presence of African American undergraduate students within her department “I definitely don't have that many African American friends in my major. I do actually have one that I met, but like that's pretty much it.” This highlights the department culture with the two colleges where there being a lack of diversity is commonly known, accepted and understood. Student discuss their relationship with their advisors and professors as well the departments culture to which they had to grow to find and develop community in. They also discuss their relationships with majority faculty, “I don't know, does it does kind of seem like the, the professors are some of the more traditional professors kind of connect with like the more agriculture, I guess the people who are more ag background.” For example, Hope compares her experience in two different departments that have different cultures “I felt like...department was more about just getting graduates, whereas like …. is like building people up.” These ideas highlight professor’s ability to cater to all perspective and
experiences within the classroom setting which once again highlights the department culture and how stagnant it is to change to be more inclusive to all students. These experiences highlight the type of various perceptions that students develop about themselves both as students within CALS and CNRE as well as the overall Virginia Tech campus community as a whole.

Within this study several social facets are identified that impact the African American student experience both inside and outside the classroom setting. Participants revealed different perspectives on how social interactions weighed in on their undergraduate experience at Virginia Tech as African Americans studying in the college of Agriculture and Life Science and College of Natural Resources and Environment. Zoe discusses her interactions with her classmates below,

“...for study groups or like chats and that may just be like my personality. Maybe I'm not that outgoing, but I think in that sense it can feel like there is sort of a divide I guess....I feel like it may be easier for like white and male students to connect, um, and to like find their community within the classroom I guess.....whereas I wouldn't really like feel comfortable or feel like I don't even really know how I would go about like starting a study group or chat with like people in my class usually like I'm added to it or I have to be asked or I have to ask to be added to it”

Zoe’s response bring forth important insight on feeling disconnected with her classmates which has a large impact on how she view community with those spaces cohesively with the, Diamond mentions a lot about her viewpoint of how her social interactions within the
classroom impact her perception of how she can navigate as well continue to see herself within the colleges, “I don't talk to her [another African American female]...not only does she sit in the back of the classroom that she's associated with [the subject] cause she knows [about the subject]... and I don't. So, there's a lot of like social blocks.” Here she highlights this idea of how a lack of knowledge or experience socially prevents her from interacting with other students within her class, particular other student that identify as African American just as she does. This additionally causes her to develop this sense of not belonging and feeling alone. This is even extended within interactions outside of class time “I don't really socialize with a lot of people, especially like within classes, but like in dorms either, like I don't socialize with a lot of people because like the social clique thing.”

**Interactions: Indirect mentorship and direct mentorship experiences in CALS and CNRE.** Within the finding of the study student participant expressed their various indirect and direct mentorship experiences with faculty and staff in their colleges and departments. Indirect mentorship experiences refer to students’ experiences with faculty/staff where actions are not purposely structured under a mentorship practice framework. Whereas direct mentorship experiences refer to students’ experiences being structure under a mentorship framework where certain expectations and goals are expected to be met within the mentorship relationship. Individuals identified various interaction with mentors here on the campus of Virginia Tech. From the findings, several of the student participants found mentorship from either the same person or someone who carried many of the same characteristic mentioned when describing the type of mentor that would need in their life as well as mentors, they had prior experience with. Here
Grace discusses her knowledge of mentoring experience “...is doing this thing where they pair you with like you like thought survey and they pair you with hopefully somebody like in your career path that you can talk to and like texts and stuff like that.” Kacey described her relationships with two of her mentors below.

“...I'll do [Ms. Jones] (African American female). Um, so like I met [Ms. Jones] ... an advisor to manage while she was working with, um, CALS. And, um, she was like, hey, like come .... we're not just going to be professional development, but I'm actually going to personally try to like help you out and be successful. And like, that's not something...we have seen people extend themselves within like a department. Now some people get paid to do that, you know, like if the culture convenience is that it constantly, but I never seen anyone like extend themselves to do that. And I don't know if mentorship is something that faculty are supposed to do, but like for undergraduate specifically, but like I hadn't, no one had ever extended it out to me.”

“I would say maybe like Mr. Jones (White Caucasian male) and he's in the ...department. He's definitely been like, if you want to work on like if you ever want to do like a research...I'd be down to like write on your research paper and help you get it published”

**Racial Prejudices: Inequity and Experiences.** “...sometimes I do feel like it's because you know of my skin color because like I am probably intimidating to approach because of stereotypes or whatever “. Relevant to the data within the findings the student
participants expressed that there are various facets associated with race that have had lasting impact on the African American student experience and how they perceive themselves to be truly and genuinely a part of the Virginia Tech campus community. “Like I've never been called the n word to my face. I've never been like given like I'm going to be, I've never experienced anything like over it like that” These feelings lead to these students enduring additional labor trying to justify and prove that what is considered outside of the norm is actually very much so normal, leading to more diversity consideration. From being the only African American in the majority of their classes feeling marginalized and alone, to dealing with issues based on racial consciousness, the student express that these tensions due to a lack of diversity.

Theme 3: Self-Efficacy and Locus of Control: Positive interactions and support from African American Community Structure

Environmental Interactions: People in various networks providing resources.

Findings from this study highlight the benefit and functionality of people in various networks that provide resources for support that have an impact on the African American students experience while enrolled in CALS/CNRE as well as navigating the campus as a whole. Students have developed relationships with people who are part of various different networks on campus that they find comfortable enough to lean on for support and guidance whether the situation be positive or negative. “I feel like if there was like some events that happen in my life that like triggered my need to like reach out for support, like I feel like there would people be for me to go to like in our department or just around campus. Like I don't feel like I wouldn't be able to find somebody to help with anything that I needed” (Grace). The findings suggest that resources provided by
mentors as well as external resources outside of the campus community all support students throughout matriculation during their undergraduate experience.

**The Coping Process: Navigating this experience, leaning on the African American community for support.** Finding from this study suggest that events that took place in history, current societal controversial issues, personal experiences, as well incidents that take place on campus have had an impact on African American students prior to entering college as well as early on within the collegiate matriculation. They find methods to cope and deal with various issues and encounters in order to not have to re-cycle through experiences.

“So freshman year I was in [a college/department] mentoring program…. I had a mentor and she was, was a good mentor, but maybe not what I needed my first semester here... She's one year older than me and, and she was going through her own classes and like doing her own thing. So, I think like she was... there for me, you know, whenever I texted her, she answered any of my questions. And you know, being a freshman, I had freshman in my first semester, I had so many questions, so she was there. But I think like I should have had someone… but like just a little bit more power, a little bit more knowledge of everything that could have. But then also like I was just struggling, so I don't know what, what could have made it better…. I was a mentee in that and then last semester I was a mentor and that, um, so I had two mentees and I'm also, the program sort of doesn't really shape it where I dunno, like I know as me as a mentor, I really didn't have the resources to help them as mentees....one of them wasn’t one of my even in any of those classes. So, she would come to our meetings and be like, I don't
have anything to discuss. And I was like, okay, well you know, this is, it's not really benefiting you if you're in the wrong program or like if the program doesn't have anything to benefit you, I guess. And then the other one was just like, Eh, I'm fine, like I'm passing. So, I don't really think that's why I'm not doing it this semester because I was like, I don't really think it was worth me being a mentor, if that makes sense”

From this experience you can see how Hope has to take a different approach to navigate her experience as an African American studying agriculture so that she can be successful as well as how she is using experiences to personally navigate and justify why those decisions are most beneficial for her and her success. Hope continues to discuss some of her other experiences in relation to how “after I had been struggling after that first year, she was sort of there spring semester, so she saw me like coming from struggling first semester and then the second semester... having a better attitude and coming back. And then the last semester, you know, being a full 360 from what I was.” Similar to Hope’s experience the findings reveal that these students that participated in this study then found support with their various African American networks whether it was interactions with graduate students that they were able to easily relate to or find mentorship with, peer to peer mentorship, or reach back to your home community all in order to be able to effectively navigate their undergraduate experience at Virginia Tech. Diamond mentioned the impact that peer to peer mentorship had on here experience thus far, “She's one year older than me and, and she was going through her own classes and like doing her own thing. So, I think like she was, she was there for me, you know, whenever I texted her, she answered any of my questions ... I had so many questions, so she was
there.” She continues to state, “It's been a lot easier cause you know like if I ever have questions, I always like say like I can just ask...I don't have anybody else to like ask these kinds of questions too. Like there's no like upperclassmen that I talked to you that could give you the kind of insight that she is me.” Here one can see that student have different methods for which the operate and utilize their networks. Diamond came to realization and knew regardless of situations she faces or questions that she could always lean on that one on one interaction that she has with her per mentor who could keep her plugged into whatever it was she needed. Hope discusses her experience reaching back home to be able to “normalize” her feelings so that she is able to push through each semester, “Before class, like every semester I'm like, I'll be talking to my mom and I'm like, Oh, I'm about to walk into this class full of people that don't look like me. Like, it's going to be awkward and like everybody's gonna be staring at me. She then continues “every semester, like the beginning of this semester I was talking to my mom and I was like, mom, I'm going to be the only one…. She basically like told me like you, you're making the way for others to feel more comfortable maybe like in doing it.” Within this particular quote one can see that Hope finds reassurance and confidence in the words of her mother and that automatically impact how she perceived herself in a community away from home.

**Extrinsic motivation influences positive intrinsic motivation: Being Built-Up by the African American Community Personal Impacts.** “But for me it hasn't really impacted my perception because I kind of, I'm on the same level. Playing field is the people that may think less of me, so it really doesn't affect me” (Sharde). The findings revealed various personal insights, emotions, feeling and reflections that have an impact
on how African American students perceive themselves based on past, current, and future interactions and both direct and indirect experiences which has a large impact on how they view themselves within the classroom. “I want to be known for being successful and pursuing this major” (Michelle) “I have like a stronger support base and a little bit stronger and stronger in my faith and not saying the most people, but it kind of really hasn't shaken me much” (Sharde).

Response for the student participants suggested that infusing mentorship into their process of growth and development during their undergraduate experience has a large impact on how things impact them personally as well. As a result of her mentorship experience, Zoe mentioned the following personal outlook and insight which pushed her to strive to understand and see herself in a more positive standpoint, “in my classes where I'm, I feel like more confident, I feel more able to speak up and ask questions and I feel like I can like go to my professors and asked them about opportunities to, for like scholarships or research or whatever it may be.” She continues to state, “So like so we shouldn't have to feel like out of place or if we, if we do happen to be the only like minority student in the room, it's not because of like luck or chance, but that were meant to be there.” Here personal insight to how to perceive herself had a large impact on how she views herself in an academic setting which is further explained below.

“I don't think I was trying to get like a deeper knowledge than what I needed to as far as like taking tests and like doing quizzes. Um, but like seeing her [another African American female] be an active participant in class. Um, and like perform really well on tests or like she was being recognized by professors, like they would pull her aside. I feel like that definitely influenced me to like unlock my
better self or to really like push myself to do, to do greater than what I had been doing because like it is possible”

This insight led to a complete shift in how she bridges Zoe in the classroom and Zoe outside the classroom together in an effective manner to best exemplify the type of presence that she wants to be known for and understood by at all times. The data from the study reveals that personal impacts include student ability to make personal connections that bridge the gap to things that may seem out of the norm for them; to discover inner and personal awareness that, personal understanding of purpose and developing a support system.

Based on the data students identify various factors that have an impact on how they view things as well as themselves as both an African American student in CALS and CNRE as well as an African American student at Virginia Tech. These feelings are a result of students feeling inspired to make a mark and impact. Their feeling highlights their interactions with African American graduate students, receiving constructive and intentional assistance, and well as finding comfort within their support systems internally and externally from their undergraduate experience. Some mentioned within their responses that they were experiencing feelings of uncertainty as well as having a lack of relationships with faculty and staff within the department.

Social Interactions: Organizations that serve students of color. Participants identified current initiatives that support diversity and inclusion efforts on campus. The participants identified each of these ideas as methods of building community which resulted in these African American students feeling as if they have space to go to that
supports their views, understandings, and interest, as well as place where they can find commonalities, both physically and mentally. The initiatives that participants discussed include: Minorities in Agriculture, Natural Resources, and Related Science (MANNRS), Student Opportunity and Achievement Resources (SOAR), and the National Association for the Advancement of Colored People (NAACP). Below are responses from the participants that highlight their interaction with Diversity and Inclusion efforts that have had a large impact on their perceptions of themselves within this campus environment.

Kacey reflect back on her reasoning for joining MANNRS and the beneficial impacts she has received from her experiences being involved

“I think that mainly why join MANNRS?, but then I realized that these people like actually care and like they would extend like, Hey, come to my office hours, come see me, come and eat lunch with me. Yeah. So they [the advisors]…. would still be like, hey, let's meet and discuss what's going on. Um, and I think that that type of care and authenticity is something that I was seeking was I realized it was there and available to me”

Michelle discusses her experience being part of MANNRS “…it's just like additional resource I can go to, like I can reach out to other students about classes they've taken or not, I should take them or not.” Similar to Michelle, Zoe discusses her experiences being a part of MANNRS and how beneficial it has been for her “I feel like in MANNRS, mentorship, like one thing our advisors always told us was that the seat that we have is like meant for us.” She continues to state, “I feel like just being placed in that environment where everyone is like trying to succeed and people want me to succeed.”
She then continued to discuss her experiences being a part of the NAACP, “So I feel like it just helped me to plug in more, to feel like this university is also my university.” Additionally she states, “so I feel like going to meetings like NAACP or where there is a community of black people and we are able to like share stories possibly is where I feel comfortable going or where I have gone just to listen and hear what other people have to say and how they dealt with it because if it were to ever happen to me, I don't even know like what my first step would be.”

*Research Question 3: Response from institutional leadership*

Addressing the third research question, “From the perspective of African American students, what type of response can institutional leadership offer to initiate and support effective and sustainable cross-racial mentoring to assist in addressing the needs of African American students in the College of Agriculture and Life Sciences or College of Natural Resources and Environment that are not being met?” Each student participants expressed their needs as well suggestions to university administration that they have as an African American student enrolled in the Colleges of Agriculture and Life Science and College of Natural Resources and Environment and how institutional support was critical to their experience while enrolled as an undergraduate student at Virginia Tech.

*Theme 4: University Bureaucratic Structure: The negative impact on the African American student experience*

**University Bureaucratic Interactions: Good intentions don’t measure up.**

Within the study the findings highlight the dynamics of the university from how decisions are made and dealt was well as how power is distributed. Responses from the participants highlight their understandings of the decisions that the administrative hierarchy makes which impact African American students' experiences. This includes
the university's intentional diversity efforts and decisions as well as their responses towards making sure all individuals who are part of the campus community feel included. “I mean on this campus, like they do try to hammer in the like ideals of diversity and inclusion, but I think it is like kind of hard to see it sometimes, which I mean like they have, we have good intentions… (Blair).” When discussing how the university handles such racially based issues Michelle states, “Because I think overall the university doesn't really care” and “Like there's been a lot of incidents like the university…. did not handle that well.” Blair continues on to discuss is her viewpoints on the university’s method on handling these issues.

“Well, we had thought one racist English teacher or something that like openly announced his part, like the KKK or something. I remember that being talked about or something. And then also we have the women's volleyball team or basketball team. They're like if they had the video with like them saying how much you like in words in the song and stuff like that”

“Well the fact that they like couldn't punish the girls like team because there's no nothing in the student code of conduct about like hate crimes or racism. That really did impact me because like I know especially having such a low amount of minorities, like I feel like it's really important to protect them and like hate speech and everything like that”

Kacey responded in a similar way, stating:
“the [sports] team incident is one example of how the...university responded to that...it was kind of like, they're released a lot of statements, but no one seemed to like reprimand them for, committing like something or doing something that was hurting another community. It was kind of like, oh, well they didn't mean it and this, that and the third…. Acting in that way was kind of like petty or like irresponsible. I wish they had it held them more accountable, but I think...they have some type of privilege that allows them to kind of like get away with doing certain things”

Aliyah highlight her involvement in organizations as a method to help contribute toward making some sort of change on campus:

“I'm in the NAACP here and like I guess we worked on like a lot of stuff with student conduct and actually getting stuff in student conduct about like hate crimes. I'm like why students should kind of be upheld to anything relating to something like that happening here. Um, so that was like one of our strongest efforts that we've been working on for like the past year”

**Intentionality: Representation in the campus environment.** The environment and culture in which the functions and behaviors of the campus community are found and identified as the norm and is not always benefiting all individuals and entities on campus. Blair stated, “I feel like that's in any college here to be honest. Because like the school
and things like 68% white, so like I dunno, it was just going to be like rare to find minorities in your classes, just like point blank.”

“Like I feel like it's an issue that the school, like admissions boards and stuff like need to look at first because I feel like once they start making the change there, since they're kind of higher up, then you'll begin to see the change in the colleges and stuff like that. And then the colleges can adapt to the changes as well. I feel like right now the college is just kind of have to go along with whatever the rest of the school kind of decides cause it's out of their power.” (Aliyah)

As mentioned by the students, the campus culture established here Virginia Tech is one that is not the exact fit for African American students as the culture does not continuously support and respect the perspective of this particular student group. Overall there is a lack of representation within the African American community and that lack of representation contributes to the campus culture and why there is a lack of inclusive improvement at times. Pertaining to the experiences of African American students. For African American students due to not being able to fully conform and accept the ideals of the campus culture they find themselves receiving support and building community outside of the classroom through various organizations outside their academic colleges and departments.

From the findings the participants expressed a need to build more community for African Americans. Putting into the perspective that it was not just about the numbers but also having people to represent those individuals that identified within the community.
There are several different factors that make up and impact the development and sustainability of the Virginia Tech community. From one point mentioned by the participants, there is this view of there being a lack of community overall at Virginia Tech. Students expressed that they are segregated into their various groups in a number of different ways which make it hard for a student who would not normally meet the "norm" to intermingle whether that is inside or outside the classroom.

“Rarely. I mean, yeah, mostly rarely. Um, and if they are, they don't really speak like that's the one thing too is kind of like people don't speak around here either. Like people just kind of go about their day or you meet them and engage with them and they don't say anything to you later or you try to engage them in conversation and then we'll engage you” (Kacey)

From another point of view offered by the student participants there is a lack of community among African Americans due a lack of accessibility and access to other African American students, faculty, and staff. Hope mentioned the university providing more support for organizations like “...BSA or just like in general, um, support. But I feel like those organizations try their best to make a community for African Americans.”

The student participants expressed and articulated a clear understanding of what it means to be an African American student at Virginia Tech which the foundation of this is due a lack of accessibility. And as a result, they additionally expressed the needs that they had in order to more successfully navigate the various spaces as well as feel like part of the campus spaces both within their departments as well as in the broader campus community. The participants expressed that they are in need of more accessible opportunities personal, profession and academic growth; develop methods of building
and sustaining community environments; and developing and maintaining support systems.

“I feel like it's really hard to kind of just track down anyone that could be like a good mentor like faculty wise or just overall it's just kind of hard to find someone that would be willing to be a mentor. I guess that's African American here” - Aliyah

“I don't really feel like, I know like I'm sure there is things out there like it's like student groups and stuff, but I don't feel like they've been advertised to me in a way that like I had been really like enticed to go” - Grace

“I've never heard of anything, but I feel like I would like get involved in things if they were like placed in front of me” - Grace

“So would it be nice if those things were like kind of like, hey you guys before we started class? Like these are some opportunities available for students” - Blair

**Intentionality: Awareness and engagement.** “I just want them to start to, to think about the experience as a minority student and how they may need to change how they teach and engage with students to accommodate those challenges.” There are several factors within the idea of making campus environments diverse and inclusive that need to change were mentioned by student participants. Aliyah mentioned “I know they have like a whole action plan for like the upcoming class to be like 40% minorities and like 60%
Caucasian. Like they're trying to increase the minority here. Like overall in general, I know that they have that new thing called SOAR. I'm not sure what SOAR does. I know that I've got a bunch of emails about it and just like how it helps like minorities…”

(Aliyah). They expressed the need for future goals set in place to support, develop, and sustain future inclusion and diversity efforts. The responses support the need for a better method towards handling and addressing issues of diversity and inclusion. This includes working with various networks as mentioned by Sharde “most importantly they know they're [university administration] able to like make some change. Whether that be, I dunno are just there. They're able to help catalyze some type of change, I would say.”

The response of the student participants clarified that a method needs to be developed in handling these issues need to be intentional efforts that all individual among the campus community commit to.
CHAPTER FIVE: DISCUSSION AND CONCLUSION

The purpose of this study was to better understand the needs of African American undergraduate students studying in the College of Agriculture and Life Sciences and College of Natural Resources and Environment based on their experiences while enrolled at Virginia Tech assessing the role that mentorship had played. The findings of this study outline how African American students within these colleges cycle through individual psychological processes to perceive and motivate themselves both within in their departments as well as the campus community as whole through the support of mentorship. The findings of this study also highlight the needs of these particular students as they persist towards their undergraduate degrees. For this research study, the theoretical work of Bean and Eaton: *Psychological Model of Retention* (2000) and Rodgers and Summers: *Revised model of retention for African American students at PWIs* (2008) was used to support the findings that were uncovered.

The findings highlight the psychological processes, such as students’ pre-encounter, environmental interactions, belongingness and integration, institutional fit, immersion, biculturality, intrinsic motivation, self-efficacy, locus of causality, and locus of control that African American students encounter in order to better navigate and persist towards their degrees within agricultural sciences at a predominately white institution while using mentorship directly and indirectly as a tool. Findings from this study indicated that student participated sought out support from various African American communities both internal and external to their campus communities. The findings that emerge from this study highlight the need for more adequate support, advocacy, and representation for students studying in the College of Agriculture and Life
Sciences and the College of Natural Resource and Environment; however, there are still more layers to undercover within this subject.

Discussion of Findings

Mentorship as a Vehicle for Student Retention

In addressing the first research question, Theme 1: Mentors as a supportive guide and role model was developed based on the findings. Student participants conceptualize mentorship in three main facets (1) mentors are guides and role models for students, (2) in comparison to mentoring advising is more of a procedural practice, and (3) students identify mentors within a range of identities.

Based on the findings of this study the study participants conceptualize mentorship in their personal method for how they can personally utilize mentorship within their own personal matriculation and experience. Students identify mentors as accessible individuals that care about the whole student and are there to support and help them navigate through any type of situation through the good and bad. This is consistent with Redmond’s (1990) framing of mentorship as it is a practice that goes beyond traditional learning settings but helps creates fundamental understandings, perceptions, and interactions have impact on how student perceive and integrate themselves in various environments (Redmond, 1990). Metaphorically mentors can be seen as vehicles for adaptation and integration into students’ academic and social communities, helping the students develop in many different facets (Bean and Eaton, 2000). Continuously within the finding’s student participants expressed how their mentors helped them to integrate within both social and academic communities so that they could make the most of their undergraduate experiences. Undergraduate students perceive mentoring as an opportunity
to exchange ideas that are not directive and systematic but instead a supportive environment where they are able to develop relationships that are focused on both personal and professional growth. Bean and Eaton (2000) mentions that when mentors can support and validate students’ opinions, viewpoints and strengths that support their interests, students become more invested and successful. “Mentoring is a personal and reciprocal relationship in which a more experienced (usually older) faculty member acts as a guide, role model, teacher, and sponsor of a less experienced (usually younger) student or faculty member” (Johnson, 2007, p. 23). Findings show that student model after and are inspired by their mentors and look to them as an example in a number of different facets that support the personal, professional and academic success.

Layered societal oppression has a large influence on how mentees select and identify mentors (Smith, 2007). In the “pre-encounter” portion of Rodgers and Summers’ retention model, past behaviors and normative beliefs, which are factors that are overlapped within this idea of societal oppression, all have an impact on how students perceive and understand things to be. From the findings in this study that was conducted evidence is provided to explain the type of personal psychological influence societal issues have on individual perceptions of themselves and others (Bandura, 1997; Bean and Eaton, 2000). And from further discussion analysis individual insight and perception from understandings and experiences also plays a large role in how societal oppressions impact students (Bean and Eaton, 2000). Additionally, this has a large impact on how some African Americans view mentorship more specifically how their mentor should look.
This study revealed that African American students are impacted by issues related to race on campus whether they were directly influenced or not. From impactful event from periods in history, the latest post on Instagram or Twitter in regards to pop culture and current events, to things happening on campus. These discussion within the findings highlights Rodgers and Summers’ (2008) internalization/ commitment portion of the model, the “Development of biculturality” factor which emphasizes how students generated an understanding of having positive relationships and interactions with individuals (faculty/staff mentors) of different races and ethnicities curates that development of successful bicultural relationships. So, when looking for mentors they are not opposed to having a mentor of another race, but their first choice would be having a mentor who per se “looks” like them and that they are able to relate to. This can be explained by a tacit understanding of biculturality. Biculturality is definite by Rodgers and Summer (2008) as “the ability to successfully manipulate membership in two cultural groups”. With this idea of biculturality mentors that identify outside of the African American race are able to be relatable and have established rapport, this is extremely important to African American students as they are able to have moments where they still feel motivated, as if they are not alone or they can make it to the finish line to obtain their degrees.

To extend this discussion further this includes the role that an individual’s race plays in their ability in developing trust and establishing a beneficial relationship (Dahlvig, 2010). “White mentors have a burden to overcome traditional stereotypes or other negative images historically propagated by racism” (Dahlvig, 2010, p. 373). The findings support this claim goes back to the idea of relatability and rapport. If students
already feel as if the campus environment as a whole is not relatable, lacks rapport, and is a space that they just have to become accustomed to, white mentors have to go the extra mile to break down those barriers to develop those relationships. This highlights Rodgers and Summers’ (2008) “Belongingness and integration” factor in the model where racial implications weighs in on how students view and understand how they belong within campus environments ultimately impacting their mentorship relationship relating back to how mentors are able to best support them in the most effective and successful manners. If this gap is ever going to be bridged between the past and present within agriculture as diversity efforts increase more consideration has to go into the approach, initiation and sustainability in relationship that white mentors facilitate.

*Encounter and Immersion: African American student experiences*

In addressing the second research question Theme 2: *Institutional Fit: Department’s Climate impact on African American Student Matriculation* were developed based on the findings. This theme highlights how students identify and see themselves fitting into the institutional environment. This overlaps with Rodgers and Summers’ (2008) “Institutional fit” portion of the model that highlights the student immersion into the institutional community and environment. Within this theme it was concluded that students (1) had both positive and negative experiences in both colleges and (2) experienced feelings of belongingness, disconnect and social isolation. With that in mind this finds show that there is lack of institution fit for these students and that they seldomly see themselves integrated into the campus community and environment.

The findings within this study support Tinto’s (1975, 1988) and Bean and Eaton (2000) ideas of student retention keying into the authors’ ideas of “goal commitment”
and “institutional commitment” and how they interconnect with one another. As supported by findings from the study this “goal commitment” is associated with the student’s goals and what they want to achieve while “institutional commitments” are associated with how institutions are set up to support those students (Tinto, 1975, 1988; Bean and Eaton, 2000). In order for the retention process to be effective and efficient institutions have to be willing to really understand what the goals and needs of these students are and then come up with probable solutions that support both the mission of the institution as well as the matriculation and success of the students.

In addressing the second research question Theme 3: Self-Efficacy and Locus of Control: Positive interactions and support from African American Community Structure based on the findings the student participants expressed how they found community and build networks in order to better navigate various academic spaces through the interactions within the African American community throughout campus. Based on Rodgers and Summers’ model as result of these various extrinsic motivational factors these students were able to develop intrinsic motivation, self-efficacy, locus of causality, and locus of control. This was accomplished by them (1) developing networks; (2) find and developing methods for coping through situations and issues; and (3) joining and working with on-campus organizations that serve students of color.

African Americans that are enrolled at PWIs are faced with issues such as hidden racism, alienation, unintentional acts of discrimination, intentional discrimination, and forms of intimidation (Lett & Wright, 2003). The findings within this study suggest that African American students within the College of Agriculture and Life Sciences and College of Natural Resource and Environment at Virginia Tech have both indirectly and
directly has experiences related to racism during their undergraduate matriculation. Response from the participant suggest that although some racial incidents may or may not directly happen to them there is still some sort of connection with the African American community on the campus which has an impact on their perception of themselves within this environment (Astin, 1991). As a result, not only were these findings from the study but they also were based on and were connected to the model. For example, within this study these students were having to face and deal with these issues of hidden racism, alienation, unintentional acts of discrimination, intentional discrimination, and forms of intimidation in a number of different ways. They develop methods of navigation and coping in order to successful stick to their path of obtaining their degree by calling on family members and friends external to the campus environment to discuss how various situations impacted them. Additional some found community in other places on campus as well. Base on the model this highlights Rodgers and Summers (2008) “Pre-Encounter” and “Immersion/Emersion” factors which show how experience prior to their undergraduate experiences and during their undergraduate experiences have an impact on how they understand and maneuver through situations and issues. Based on this for some students it is a mental factor whether small or large that has an impact on how students cope and deal with things. Facing and dealing with these issues additionally leads to students having to take on this extra burden of “labor” as these described it where they find themselves as well as find methods to cope and find understanding within these issues. When assessing this idea of “labor” these students refer to it as a method of student having to educate the community in which is supposed to be educating them where are times the wrongdoer/ wrongdoers is not reprimanded for
their actions leading to a repetitive cycle that then becomes accustomed to the culture of these campus environments. Referring to the model this highlights the “Institutional Fit/Belongingness and Integration” factor within the “Immersion/Emersion” portion of the model. These are things that these student should not have to “deal” with or become accustomed to nor should they have to continuously advocate for themselves.

**Immersion and Commitment**

In addressing the third and final research question Theme 4: *University Bureaucratic Structure: The negative impact on the African American student experience* was developed based on the findings. Within the study student participants highlight their understandings, interactions and wishes of the university structures. This theme uncovers the following main points (1) adequate responses are necessary for campus issue that impact certain cultural and identity communities on campus (2) representation and access so that students know who is in what space as well as what that space is capable of doing for them. Rodgers and Summers’ (2008) model’s section “encounter” highlights both their interactions with the university bureaucratic system as well the social interactions they encounter that support their undergraduate matriculation experiences. From the finding within this study there were two perspectives offered regarding the role of faculty and staff. There is one perspective within the findings that faculty and staff do not present any sort of racial bias or discrimination towards African American students within the agriculture and natural resources related colleges and then there are perspectives that they do present racial bias and discrimination. In addressing the third question student participants did not mention anything about better supporting and influencing cross racial mentorship relationships. Based on how students’ participants responded within the
interview the findings suggest that when student begin to see more interaction and advocacy for students of color more cross-racial mentorship relationships can be initiated. It is the process of them building rapport, actively advocating and making some sort of change to best support these students.

Limitations of the Study

Though this study offers insights into the experiences of undergraduate African American students studying in Colleges of Agriculture and Life Sciences at 1862 Land Grant Institutions as how to the benefits of cross racial mentoring can play a large factor in supporting them toward obtaining their degree as well as how they perceive themselves as African American in a not so diverse field, there are still several limitations within this study. The first limitation with in this study is that the population was selected from one institution meaning that a generalization cannot be made about all experiences of undergraduate African Americans studying in Colleges of Agriculture and Life Sciences at 1862 Land Grant Institutions. The second limitation was that the study did not access responses from faculty/staff mentors to complete a comparative analysis of responses. A third limitation was that the study to did not encompass a large spectrum of students that were classified in different graduating classes. Five student participants were sophomores and four student participants were seniors. Having more a variety of classification could have offered a different perspective on how individuals understand, prioritize and perceive things. In relation to this a focus group could have been conducted to compile the opinions and viewpoints of the students especially since the number student that identified within the target population were so low. Additionally, all of the study participants identified as females. This would be the fourth limitation because
within this study a generalization cannot be made based on the findings that this is how both African American males and females experience and perceive mentorship within their respective fields.

Recommendations

There are several finding within this particular study that are supported by the literature that lay the foundation for the recommendations for better practice and future research. Base on the findings for this study and supported by the literature of Tyler, Boykin, Boelter, & Dillihunt (2005) African American students’ past experiences and understanding that they bring with them into their undergraduate experiences plays a large role in how they understand, process and perceive things. From a generalized perspective because of their culture and where they come from students are able to use those skills and understandings to better maneuver through situations. Student apply these understandings in order to function. This is strongly based on student perception and understanding and as practitioners it is a requirement to meet them there and come up with solutions that they both understand and feel comfortable executing.

Additionally, based on the findings of the study, mentorship for African American undergraduate students is largely supported by Brown et al. (2017) idea of Ag and STEM identity and how it is well supported within the role of mentors. Still supported by Brown et al. (2017) work and the finding in the study this shows how mentorship can play a large role in supporting and empowering African American students to identify themselves in these field whether that is directly or indirectly through the practice. Eventually developing the perception and mindset of overstepping the realities of oppression and instead paving the way for new opportunities for themselves and others.
that come behind them. Lastly, supported by the study’s findings and the literature as mentioned by Dahlvig (2010), higher education institutions will forever be inaccessible to African American if intentional efforts of inclusion and diversity are not considered and wholeheartedly implemented on our campuses or the cycle will continue.

Recommendation for Practice

The findings within this study suggest that more intentional methods are needed for supporting African American students studying in Colleges of Agriculture and Life Science and Colleges of Natural Resources and Environment at 1862 Land Grant institutions. A main point within the findings of this study suggest that faculty and staff need to be more intentional as well as be equipped with the tools and training to better ensure that they understand and create more inclusive practices within the classroom that cater to all students. This would include university’s inclusion and diversity offices/division partnering with the academic colleges to host inclusion and diversity training that properly articulate how to create inclusive learning environments. Host reoccurring sessions throughout the year to support the needs of practitioners so that they can better support their students as these relationships evolve over time.

But this also goes beyond training this involves pushing practitioners to challenge themselves and their teaching philosophies to be truly intentional about the type of environment that that they create for their learners, ensuring that that they are inclusive not only within regard to content but also dialogue and interaction. More policies need to be set in place as well as outlined resources provides to students to hold practitioners accountable for their action if by any chance, they may not be creating inclusive environments within classrooms and educational spaces. College campuses are
considered communities away from home for students and if students are not feeling as if they do not belong based on normative belief because they are not classified as a majority those individuals creating such a divide should be held accountable for their actions. In addition to this when creating and maneuvering this idea of inclusive learning spaces and environments the perspectives of these students needs to be recognized and honored through listening and understanding and then taking some sort of active action. It is not the responsibility of the practitioner to determine what the problem is but instead to listen to these students and develop solutions that best support them as the progress throughout their time at our institutions.

Once again student should not have to be accustomed to these issues and individuals who encourage these sorts of bias should not be in these sorts of positions that result in them interacting with students. One of the missions of faculty and staff should be to align the institution’s overall diversity and inclusion efforts with their philosophies within the learning environments that they create for students. This starts from providing and sharing opportunities, providing different perspectives within class material, offering different perspective among conflict and opposing viewpoint and etc. Faculty and staff have to set the stage and tone for how different perspective and ideas will be articulated within the classroom and if any sort of disservice is being offered to their students from an administrative level that does not support them it is up to them to advocate. As an educator the role is taken on to support student learning and understanding which goes on past the classroom and is foundationally based on application, taking what we learn external from learning environments and applying that into the learning environments and vice versa.
Based on the findings suggestions for practitioners would be to offer professional development training for advisors specified for the area of study highlighting potential factors that may impact students, that helps them implement more mentoring as advising practices for all students from an inclusive standpoint. It is important to understand that while students are enrolled in school they need to be holistically supported, as mentioned by Rogers & Summers (2008) this includes mentally, physically, and academically in order to successfully persist towards their undergraduate degrees. These factors all have an impact on students’ performance in the classroom which ultimately is a determinant of their persistence to their degree (Rogers & Summers, 2001). And as advisors it is important to understand how these factors impact students and to develop methods to best support these students so that they perform successful academically. Another suggestion for practitioners to support the findings of this study would be for College of Agriculture and Life Sciences as well as Colleges of Natural Resources and Environment to be advocates for African American students particular using your voices and level of authority to enact change and any sort of injustices students may face. Educators within these department need to be aware of issues on campus that impact these students, acknowledging and creating safe spaces for them to express how those experiences impact them and their perspective of themselves within campus and department communities. This would also encourage more campus community partnerships examples with Dean of Student Offices, campus counseling centers and culture community centers.

Additionally more intentional thought needs to go into how environments on campus actually welcome and create community for these students but also how faculty
and staff at these institutions as trained to ensure that these environments remain that way (Strange, 2003). African American students need to know that these issue matter to institutions and that something is being done to address them as well as support the student throughout the matriculation of their undergraduate experience. Administrative leaders need to take lead and accountability towards full addressing issues that go against the implementation and sustainability of creating inclusive environments that support this particular group of students and similar. Findings within this study suggest that institutional administrations need to create and execute more intention and strategic plans that support and encourage the creating and sustainability of environments on college campuses for African American students. Institution diversity task forces need to go beyond the paper and be implemented throughout every entities of colleges campus to ensure that all areas and aspects are understood and know to be inclusive.

From a student organization viewpoint, it would be appropriate for the Student Government Association to the develop a student representative senate that has representative from each college as well as a Student Judicial Counsel that could better advocate for student conduct matters that impact students particularly focused on matters concerning diversity and inclusion. This would include letting student have a voice and representation for issues that matter and impact them during their undergraduate matriculation. Representation and advocacy from a student level has a large impact on how decisions are made on college campus as will how the campus culture is viewed and appreciated. This representative could also be present within the various student and faculty/staff caucus/ assembly groups to be to share their platforms and concerns to be advocate for their fellow students and gain support from their campus community.
Within an increase in effort to have increase and retain the minority and underrepresented students such as African Americans populations on PWI campus there is a need for departments to take special precaution to make sure that once admitted within these various departments these students feel a part of the department and college community. This would be achieved through interactions with faculty, staff, student, department organization and other campus partners. Additional it is important for academic diversity recruitment officials to develop methods of programming and outreach to support African American students after they are enrolled, ensuring that they have all the necessary resources and tools that they need to be successful beyond the admission process. This would include a continuous networking events throughout the semester especially at the beginning of each semester so that student can become familiar with the African American/ student of color community within their academic college and departments in order to have access to peer networks and support. Students would also have the opportunity to interact with African American faculty and staff within their academic college and department. Additionally, this would include information about honor societies, organizations, programs, and professional development opportunities as well connect these students with one another several times throughout the semesters and academic school years, so that they can build a network.

These finding suggest there is a need for more representation with the African Americans among the entire campus community particular among faculty and staff populations as these individuals can be trailblazers and advocates for students within their perspectives within their perspective colleges and departments. From a mentoring perspective, there needs to be a push for more diversity with agriculture and natural
resource fields within student population there, there need to be more of a push for the recruitment and retention of African American faculty and staff in these fields and within these 1862 institution. Not only could these individuals bring different diverse perspectives, but their presence could lead to more mentorship relationships and interaction among African American undergraduate students. But caution and more structures need to be developed to ensure that these individuals are not burdened with responsibilities that take over what they are expected to do within their positions.

From an additional support and persistence perspective, a well-developed mentorship program which should be foundationally based on mentorship relationships should be established as well to provide students with another network of support towards their success. This mentoring program for students of color would have immediate access to mentorship and other support networks through their entire undergraduate experience to help them find their path within their academic major and experience within their campus environments. What good is recruiting students if we cannot retain and support them? Well-developed cross-racial mentorship efforts in to need encouraged and implements to assist in closing the gap of the lack of interaction among majority faculty and staff and African American undergraduate students in these colleges and departments. If this gap is ever going to be bridged between the past and present within agriculture as diversity effort increase more consideration has to go into the approach, initiation and sustainability in relationship that white mentors facilitate.
**Recommendations for Future Research**

To continue on within this effort to discover methods to continue to better support African American students during their experience at Land Grant 1862 institutions as they pursue degree in agriculture science and natural resources through cross racial mentors, there are various suggestions towards future research. One recommendation for future research include conducting a qualitative analysis via a survey that highlights student reactions in regard to the situations that had an impact on themselves and their needs as a student from a broad campus perspective as well as from a departmental perspective. What is going on with their academic colleges and departments that does not support them as African American student studying within these particular fields, and how does that have an impact on how the identify themselves within these fields. It is important to dive deeper into their experience within the classroom to better assess how to create more inclusive environments for all students.

Another recommendation would be to further analyze and assess the gender gap between African American undergraduate males and females studying agriculture and what causes there to be such a lack in male presence versus female presence. Within this study all the participants were females. Why is there such gap between the number African American males and females studying agriculture? Are there more specific needs for African American males in these white majority spaces compared to African American females that a present in these spaces.

Based on the repeated interest and impact of department/college-based organizations and club additional recommendation would be to access MANNRS chapters at other 1862 institutions. As MANNRS is organized to support and create learning communities for minorities and student of color to successfully navigate through
the academic experience within their perspective agriculture and natural resources fields while enrolled within their undergraduate experiences it would be suggested that the study assess the impact to which MANNRS motivate students to find and build community, encourage self-motivation, and degree persistence for student studying in Colleges of Agriculture and Life Sciences. What type of program planning as well as leadership and mentorship development is being implemented to support these students to feel empowered by their presence and investment within these agricultural fields?

Additionally, an in-depth qualitative analysis needs to be conducted to assess why there is a lack in the presence of African Americans faculty and staff with College of Agriculture and Life Sciences and Colleges of Natural Resources and Environment at 1862 Land Grant Institutions. How are African American faculty and staff supported within these colleges and departments especially when they have to support and advocate for student of color due to a lack of inclusivity? Other research should be completed to assess the as result for this effort the hope would have an increase in the recruitment and retention of both African American faculty and staff as wells student in College of Agriculture and Life Sciences and Colleges of Natural Resources and Environments.
References


https://doi.org/10.1080/15363750903404266


Hage, Jerald and Michael Aiken (1967), "Program Change and Organizational Properties: A Comparative Analysis," American Journal of Sociology, 72 (March), 503


https://doi.org/10.2202/1940-1639.107


APPENDIX A

Student Interview protocol

The purpose of this interview is to gain insight on experiences of African American students studying in the College of Agriculture and Life Sciences and College of Natural Resources and Environment and how they perceive and utilize mentorship as a student both as Virginia Tech as well as in the perspective colleges and departments. There will be three individual interviews conducted.

Interview 1 Script:

Hello! My name is Kayla Harris, I am a second year Masters Student in the Agriculture Leadership and Community Educations Program. I received my undergraduate degree in Agriculture Education from North Carolina Agricultural and Technical State University, which is a Historically Black Land Grant 1890 Institution.

Thank you for taking the time to meet with me today. Your participation in this interview will help support and articulate the needs of underrepresented students studying at 1862 Institutions so that we can continue to strive to create more inclusive communities to support our students as they progress towards their degrees. Today, I would like to ask you to discuss your understanding and experience with mentorship while enrolled at Virginia Tech.

I would like you to feel comfortable saying what you really think and how you really feel. If it’s okay with you, I will be tape-recording our conversation since it is hard for me to write down everything while simultaneously carrying an attentive conversation with you. Everything you say will remain confidential, meaning that only myself and the research team will be able to review all the information you shared with us.

Before we proceed any further do you have any question about the consent form?

If I have addressed all of your concerns, please sign the form and if you are comfortable, we will proceed with the interview.

Interview 1 Example questions [the nature of the questions will not change, but the exact wording and order may be modified]

General Information Questions

1. Please tell me about yourself
   a. What is your year in college?
   b. Why did you choose that major?

   c. What are your career goals after you graduate?

Interview Questions: Perceptions of Mentorship
1. How you define what a mentor is? (P5: RQ1)
2. How do you differentiate a mentor from an advisor? (P5: RQ1)
3. How would you conceptualize what and who would be a good mentor to you?
4. In what ways do you believe that mentoring is or can be beneficial for you as you progress towards your academic degree? (P5: RQ1)
5. What opportunities for mentorship, if any, have been offered to you during your time at Virginia Tech? (P5: RQ1)
   a. What has been your experience with these opportunities?
   b. What opportunities of mentorship have you been offered from white faculty/staff from your department in the College of Agriculture and Life Sciences or College of Natural Resources and Environment?

**Interview 2 Script:**

Thank you for taking the time to meet with me today. Your participation in this interview will help support and articulate the needs of underrepresented students studying at 1862 Institutions so that we can continue to strive to create more inclusive communities to support our students as they progress towards their degrees. Today, I would like to ask you to discuss your overall experience while enrolled at Virginia Tech, this includes in your academic department as well as the overall campus community as a whole.

I would like you to feel comfortable saying what you really think and how you really feel. If it’s okay with you, I will be tape-recording our conversation since it is hard for me to write down everything while simultaneously carrying an attentive conversation with you. Everything you say will remain confidential, meaning that only myself and the research team will be able to review all the information you shared with us.

Are you comfortable proceeding with today’s interview?

**Interview 2 Example questions [the nature of the questions will not change, but the exact wording and order may be modified]**

**Topic: Student Experiences**

1. What has your experience been like being an African American in the College of Agriculture and Life Sciences or College of Natural Resources and Environment?
   a. As an African American student at a predominately white institution such as Virginia Tech, what are some implications of racism that have you experienced, if any, that have impacted your perception of yourself as an African American that is part of the campus community at Virginia Tech?
   b. As a student in CALS or CNRE has anything happened that you feel is a result of your race?
   c. In what ways have you felt that you needed support and who did you go to assist you through working through those needs?
d. Why did you go to that person?

2. Do you have any personal relationships with the African American faculty in your department? If not in your department was there another African American faculty/staff person on campus?

**Topic: Mentorship and Academic Support**

1. How do you seek mentorship?
2. Please tell us about a mentor you have had in the past. Could you please describe the mentoring relationship?
3. Describe what some characteristics would be for an ideal mentor for you?
4. As an African American student in the College of Agriculture and Life Sciences or College of Natural Resources and Environment what would be some characteristics of your ideal mentor that you believe would support your needs while enrolled and working towards your degree here at Virginia Tech?
5. Thinking about the history and role African Americans have had with the agriculture sciences what/who influenced/ influences you to pursue your studies in this field?
6. Still thinking about the history and role African Americans play in the agriculture sciences how do you hope to identify yourself within the agriculture community?
7. **Interview 3 Script:**

Thank you for taking the time to meet with me today. Your participation in this interview will help support and articulate the needs of underrepresented students studying at 1862 Institutions so that we can continue to strive to create more inclusive communities to support our students as they progress towards their degrees. Today, I would you to talk about your experience with individuals that have had an impact on your experience while enrolled in your college and department as well as your recommendations for faculty and staff within your college and department so that they can better support your needs as an underrepresented student.

I would like you to feel comfortable saying what you really think and how you really feel. If it’s okay with you, I will be tape-recording our conversation since it is hard for me to write down everything while simultaneously carrying an attentive conversation with you. Everything you say will remain confidential, meaning that only myself and the research team will be able to review all the information you shared with us.

Are you comfortable proceeding with today’s interview?

**Interview 3 Example questions [the nature of the questions will not change, but the exact wording and order may be modified]**

**Topic: Impacts**

1. Are there if any, social interactions you have had within your time here at Virginia Tech that a positive or negative impact on your experience within your academic matriculation?
2. Do you have any African American mentors here at Virginia Tech that you identify outside of your department and college?

3. Do you know of diversity and inclusion effort currently being implemented on campus currently? Have you had interactions with them?

4. Are their faculty/staff within your department have you believe could help you reach some of your career goals? Do you have a relationship with them?

**Topic: Institutional Support and Understanding**

1. As an African American student in the College of Agriculture and Life Sciences or College of Natural Resources and Environment what are your needs as a student that you feel are not being met to ensure that this an inclusive learning environment?

2. Do you have any personal relationships with white faculty in your department?
   a. If not already established do you believe that you could have a mentoring relationship with them?

3. Do you feel as if white faculty in your department are the right people to help with issues? (P2: RQ2/RQ3)
APPENDIX B

Participant Recruitment Email
Dear XXX,

I am contacting you see if you would be interested in participating in a research study. As part of our research efforts, we would like to learn more from you about your prior experiences and understanding of mentorship as an African American student in the College of Agriculture and Life Science or College of Natural Resources and Environment here at Virginia Tech. To this end, we invite you to participate in three 60-minute interviews in which you will have a chance to reflect upon and discuss your experiences as an African American student enrolled in one of these two colleges here at Virginia Tech.

To be qualified to participate you must identity as African American, be a full-time student; classified as a sophomore, junior, or senior; and enrolled in the College of Agriculture and Life Sciences or the College of Natural Resources and Environment. I am interested in talking to a group of students in a range of departments and I will be selecting based on that, so there is a possibility that you may or may not be selected to participate in the study. All study participants will receive $50.00 for completing all three interviews.

Interviews will be audio-recorded and transcribed but identifying information will not be shared outside of the research team. Results of this study will be disseminated through scholarly outlets such as a master’s thesis, conference presentations and journal articles.

If you are willing to be interviewed as part of our study, please reply to this email with your name and academic department. When we receive your response, we will send a follow-up email to let you know if you have been selected to participate. At that time, we will arrange a time for the initial interview where I will further explain the study, get a little bit more background information from you, and schedule the final two interviews at a time that is convenient for you. The follow up email will also include informed consent information to review before the interview as well.

Sincerely,

Kayla Harris
Graduate Student and Study Co-Investigator

Dr. Hannah Scherer
Principle Investigator
Dear XXX,

Thank you so much for your willingness to take time for my research project! You have been selected to participate in this study.

Attached to this email you should find the informed consent material. If, after reviewing these materials, you have any questions, please feel very welcome to contact me. At the beginning of the first interview, we will also review the consent information and welcome any questions. Additionally, below you will find additional information pertaining to the overall interview process.

If you are still willing to participate, please use the Doodle Poll link within this email to select a time that works best for you.

I am looking forward to our discussions,

Sincerely,

Kayla Harris
Graduate Student and Study Co-Investigator

Dr. Hannah Scherer
Principle Investigator

**Interview Information**

**Where:** We will arrange to meet at a private location that is convenient for you

**Time Commitment:** We anticipate the actual interview to take about 60 minutes

**Qualification:** Identify as African American; full-time student classified as a sophomore, junior, or senior; and enrolled in the College of Agriculture and Life Sciences or the College Environment and Natural Resources. To be a qualified participant you must be over 18 years old.

**Main Contact Information:** Kayla Harris (kaylamh2@vt.edu)

For more information, please contact the primary investigator, Hannah Scherer (hscherer@vt.edu)
Dear XXX,

Thank you so much for your willingness to express interest in my research project! Currently at this time I do not need you as a participant within the study. May anything change if you are still interested, I may contact you at a later date if more participants are needed.

Again, thank you for your interest!

Sincerely,

Kayla Harris
Graduate Student and Study Co-Investigator

Dr. Hannah Scherer
Principle Investigator
Participant Consent Form

RESEARCH SUBJECT CONSENT FORM

Title: Cross-Race mentoring experiences of African American undergraduate students studying agriculture at 1862 Land Grant Institutions

Protocol No.: 18-1121
Sponsor: Virginia Tech
Investigator: Hannah Scherer
175 West Campus Drive; 270 Litton Reaves Hall (0343)
Blacksburg, VA 24061
United States

Daytime Phone Number: (540) 231-1759

Sub-Investigators: Kayla Harris, kaylamh2@vt.edu, (804) 683-0949
Frank Shushok, fshushok@vt.edu, (540) 231.8069
Donna Westfall-Rudd, mooredm@vt.edu, (540) 231-5717

You are being invited to take part in a research study. A person who takes part in a research study is called a research subject, or research participant.

What should I know about this research?
Someone will explain this research to you.
This form sums up that explanation.
Taking part in this research is voluntary. Whether you take part is up to you.
You can choose not to take part. There will be no penalty or loss of benefits to which you are otherwise entitled.
You can agree to take part and later change your mind. There will be no penalty or loss of benefits to which you are otherwise entitled.
If you don’t understand, ask questions.
Ask all the questions you want before you decide.

Why is this research being done?
The purpose of this research is to document the experiences of undergraduate African American students majoring in agriculture while enrolled at a predominately white land grant institution and explore opportunities for using mentoring as a tool and factor in assisting these students in persisting towards their undergraduate degree at Virginia Tech.
We would like to understand how their experience as African American students within their academic field of study impacts their identity as African American students here at Virginia Tech.
About 10 subjects will take part in this research.
How long will I be in this research?
We expect that your taking part in this research will consist of participating in three interviews. They will each last about an hour and be held over the course of approximately 1 month.

What happens to me if I agree to take part in this research?
As part of our research efforts, we would like to learn more from you about your prior experiences and understanding of mentorship as an African American student in the College of Agriculture and Life Science or College of Natural Resources and Environment here at Virginia Tech. To this end, you will participate in three 60-minute interviews in which you will have a chance to reflect upon and discuss your experiences as an African American student enrolled in one of these two colleges here at Virginia Tech.

Interviews will be audio-recorded and transcribed but identifying information will not be shared outside of the research team. Results of this study will be disseminated through scholarly outlets such as a master’s thesis, conference presentations and journal articles.

What are my responsibilities if I take part in this research?
If you take part in this research, you will be responsible to attend all scheduled interview sessions and respond honestly to all of the interview questions.

Could being in this research hurt me?
There are minimal potential risk to this study. There may be issues that arise from the interview process that may be emotionally or socially challenging for you as you reflect on your past experiences. We have made efforts to reduce potential risks to you by letting you know about the benefits that come from the study, your ability to be able to terminate the interview at any time, and that your participation in this study is confidential (identification as well as interview locations).

Will it cost me money to take part in this research?
It will not cost you any money to participate in this study.

Will being in this research benefit me?
We cannot promise any benefits to you or others from your taking part in this research. However, possible benefits to you include that participation in this study will be an opportunity for you to reflect on your experiences and use this as an opportunity to elevate African American student voices through research.

What other choices do I have besides taking part in this research?
This research is not designed to diagnose, treat or prevent any disease. Your alternative is to not take part in the research.

What happens to the information collected for this research?
Your private information will be shared with individuals and organizations that conduct or watch over this research, including:
Research investigators identified on the cover page
The Institutional Review Board (IRB) that reviewed this research
We may publish the results of this research. However, we will keep your name and other identifying information confidential.
We protect your information from disclosure to others to the extent required by law. We cannot promise complete secrecy.
Who can answer my questions about this research?
If you have questions, concerns, or complaints, or think this research has hurt you or made you sick, talk to the research team at the phone number listed above on the first page.

This research is being overseen by an Institutional Review Board (“IRB”). An IRB is a group of people who perform independent review of research studies. You may talk to them at (800) 562-4789, help@wirb.com if:

You have questions, concerns, or complaints that are not being answered by the research team.
You are not getting answers from the research team.
You cannot reach the research team.
You want to talk to someone else about the research.
You have questions about your rights as a research subject.

What if I am injured because of taking part in this research?
There is no risk of injury from participating in this study.

Can I be removed from this research without my approval?
The person in charge of this research can remove you from this research without your approval. Possible reasons for removal include:
It is in your best interest
You are unable to keep your scheduled appointments
We will tell you about any new information that may affect your health, welfare, or choice to stay in this research.

What happens if I agree to be in this research, but I change my mind later?
If you decide to leave this research, please contact the research team.

Will I be paid for taking part in this research?
For taking part in this research, you may be paid up to a total of $50.00. Your compensation will be broken down as follows:
$10 for the first interview/ $20 for the first and second interview/ $50 for all three interviews

All payments will be made at the conclusion of the data collection period
Participants will be awarded based on the number of interviews they completed fully

Statement of Consent:

Your signature documents your consent to take part in this research.

________________________________________________________  __________________________
Signature of adult subject capable of consent            Date

________________________________________________________  __________________________
Signature of person obtaining consent            Date
APPENDIX D

Study Participant Recruitment Flyer

Your Voice Matters

Reflecting and discussing your experiences as an African American student enrolled in College of Agriculture and Life Science or College of Natural Resources and Environment at Virginia Tech.

Study Requirements and Details:
- Must be over 18 years old
- Enrolled as full-time sophomore, junior, or senior enrolled in the College of Agriculture and Life Science or College of Natural Resources and Environment at Virginia Tech
- Identify as an African American
- $500 incentive for all participants that complete all three interviews

Contact Kayla Harris at kaylak2@vt.edu for more information or to participate
### A-Priori Proposition Table

<table>
<thead>
<tr>
<th>Proposition</th>
<th>Supporting Literature</th>
<th>Research Questions</th>
<th>Interview Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposition 1: African American students at Virginia Tech are likely to have experiences related to racism during their matriculation throughout their undergraduate experience.</td>
<td>1. African Americans that are enrolled at PWIs are faced with issues such as hidden racism, alienation, unintentional acts of discrimination, intentional discrimination, and forms of intimidation (Lett &amp; Wright, 2003). 2. Differences regarding the interaction of African American students pertaining to the understandings, customs and beliefs that they arrive to college with in addition to the institutional environment that the are immersed in impact who students see themselves able to fit and be successful within that environment during the duration of their undergraduate collegiate tenure (Bean and Eaton, 2000; Rodgers and Summers, 2008).</td>
<td>RQ 2: How do African American undergraduate students at Virginia Tech enrolled in the College of Agriculture and Science or College of Natural Resources and Environment experience mentoring specifically mentoring within their department and college? RQ 3: African American students, what type of response can institutional leadership offer to initiate and support effective and sustainable cross-racial mentoring to assist in addressing the needs of African American students in the College of Agriculture and Life Sciences or College of Natural Resources and Environment that are not being met?</td>
<td>1. What has your experience been like being an African American in the College of Agriculture and Life Sciences or College of Natural Resources and Environment? (P1: RQ2/RQ3) a. As an African American student at a predominately white institution such as Virginia Tech, what are some implications of racism that have you experienced if any that have impacted your perception of yourself as an African American a part of the campus community at Virginia Tech? b. As a student in CALS or CNRE has anything happened that you feel as a result of your race while enrolled at Virginia Tech? c. In what ways have you felt that you needed support and who did you go to assist you through working through those needs? d. Why did you go to that person?</td>
</tr>
</tbody>
</table>
**Proposition 2**: Institutional administration, as well as faculty and staff at Virginia Tech, need be more intentional about creating and sustaining environments that cater to the needs of African American students throughout their entire undergraduate experience.

1. More intentional thought needs to go into how environments on campus actually welcome and create community for these students but also how faculty and staff at these institutions as trained to ensure that these environments remain that way (Strange, 2003)
2. As student have emotional interactions with environments on campuses pertaining to how they see themselves apart of them more intentional thought and action need to come to faculty/staff to address these emotions to ensure that they feel apart of the community and spaces as a whole (Bean and Eaton, 2000; Rodgers and Summers, 2008)

**RQ 2**: How do African American undergraduate students at Virginia Tech enrolled in the College of Agriculture and Science or College of Natural Resources and Environment experience mentoring specifically mentoring within their department and college?

**RQ 3**: African American students, what type of response can institutional leadership offer to initiate and support effective and sustainable cross-racial mentoring to assist in addressing the needs of African American students in the College of Agriculture and Life Sciences or College of Natural Resources and Environment that are not being met?

1. As an African American student in the College of Agriculture and Life Sciences or College of Natural Resources and Environment what are your needs as a student that you feel are not being met to ensure that this is an inclusive learning environment?(P2: RQ2/RQ3)
2. Do you have any personal relationships with white faculty in your department? (P2: RQ2/RQ3)
   a. If not already established do you believe that you could have a mentoring relationship with them?
3. Do you feel as if white faculty in your department are the right people to help with issues? (P2: RQ2/RQ3)

**Proposition 3**: It is likely that there are various societal oppression, bias, and assumptions that prevented the development of cross-racial mentor and mentee relationships at Virginia Tech making it hard for rapport and transparency to be the foundation of the relationship.

1. Layered societal oppression has a large influence on how mentees select and identify mentors as well as how mentor select and identify mentees (Smith, 2007).
2. Students’ past experiences and prior understand before college in addition to their

**RQ 2**: How do African American undergraduates at Virginia Tech enrolled in the College of Agriculture and Science or College of Natural Resources

1. How do you seek mentorship? (P3: RQ2)
2. Please tell us about a mentor you have had in the past. Could you please describe the mentoring relationship? (P3: RQ2)
interactions and perception within their environment while enrolled in college have a large impact on how the psychological process things related to societal oppression and how the impacts their identify was well as those they harbor to for advice and develop rapport with (Rodgers and Summers, 2008).

3. This includes the role that an individual’s race plays in their ability in developing trust and establishing a beneficial relationship (Dahlvig, 2010). “White mentors have a burden to overcome traditional stereotypes or other negative images historically propagated by racism” (Dahlvig, 2010, p. 373).

<table>
<thead>
<tr>
<th>Proposition 4: African American students at Virginia Tech have past and previous experiences that impact their perceptions and understanding of factors that have had an impact on their undergraduate academic and social matriculation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The model highlights experiences and understands that students bring to campus from home and other interactions before college impact their experiences within their campus environments whether they are positive or negative influences (Astin, 1991; Bean and Eaton, 2000; Rodgers and Summers, 2008). These influences later have an impact on student resulting experience in college whether that is graduating or dropping out of school. The environment as some sort of impact as a result of their undergraduate experience.</td>
</tr>
<tr>
<td>2. Socialization is the process by which people acquire behaviors and belief in the environment experience mentoring specifically mentoring within their department and college?</td>
</tr>
<tr>
<td>3. What personality traits would you consider a mentor? (P3: RQ2) a. If it's not personality there a style that best works for you?</td>
</tr>
<tr>
<td>4. As an African American student in the College of Agriculture and Life Sciences or College of Natural Resources and Environment what would be some characteristics of your ideal mentor that you believe would support your needs while enrolled and working towards your degree here at Virginia Tech? (P3: RQ2)</td>
</tr>
<tr>
<td>5. Thinking about the history and role African Americans have had with the agriculture sciences what/who influenced/influences you to pursue your studies in this field? (P3: RQ2)</td>
</tr>
<tr>
<td>6. Still thinking about the history and role African Americans play in the agriculture sciences how do you hope to identify yourself within the agriculture community? (P3: RQ2)</td>
</tr>
<tr>
<td>RQ 3: African American students, what type of response can institutional leadership offer to initiate and support effective and sustainable cross-racial mentoring to assist in addressing the needs of African American students in the College of Agriculture and Life Sciences or College of Natural Resources and Environment that are not being met?</td>
</tr>
<tr>
<td>1. Are there if any, social interactions you have had within your time here at Virginia Tech that a positive or negative impact on your experience within your academic matriculation? (P4: RQ3)</td>
</tr>
<tr>
<td>2. Do you have an African American mentors here at Virginia Tech that you identify outside of your department and college? (P4: RQ3)</td>
</tr>
</tbody>
</table>
| 3. Do you know of diversity and inclusion effort currently being implemented on campus currently? Have you had
social world or culture based on where they live or where they are from. (Arnett, 1995). The definition associates with what individuals are familiar with or what they have been exposed and become accustomed to.

3. This exposure to cultural views and understanding rest within the family as parents typically have the authority of telling children where they are going to spend their times as well as facilitate those interactions within those settings (Delgado-Gaitan, 1999; Harris, 1999; Maccoby, 1992).

Proposition 5: Undergraduate students at Virginia Tech may conceptualize mentoring in different ways.

1. Metaphorically mentors can be seen as vehicles for adaptation and integration into students’ academic and social communities, helping the students develop in many different facets (Bean and Eaton, 2000; Rodgers and Summers, 2008).

2. By having mentors that invest in understand student past experiences, culture perspective personal understands and behaviors they can better help students navigate their experiences during their undergraduate matriculation (Rodgers and Summers, 2008).

3. “Effective mentoring involves not on the transfer of academic skill, attitude, and behaviors but a level of interaction, trust and communication which results in a psychological comfort that empowers a student with knowledge and confidence to grow academically and socially, regardless of the environment” (Redmond, 1990, p. 191).

4. “When a mentor validates a student’s strengths and perspectives, the student can become more successful” (Bean and Eaton, 2000; Rodgers and Summers, 2008).

5. “Mentoring is a personal and reciprocal relationship in which a more experienced (usually older) faculty member acts as a guide, role model, teacher, and sponsor of a less experienced (usually younger) student or faculty

RQ 1: In what ways do African American undergraduate students at Virginia Tech enrolled in the College of Agriculture and Science or College of Natural Resources and Environment conceptualize mentoring in relation to their life as a college student?

1. How you define what a mentor is? (P5: RQ1)

2. How do you differentiate a mentor from an advisor? (P5: RQ1)

3. How do you believe a mentor could be beneficial within our current academic standing? (P5: RQ1)

4. Do you know that a mentor does not have to physically look like you? (P5: RQ1)

5. Is or do you believe that mentoring is or can be beneficial for you as you progress towards your academic degree? (P5: RQ1)

6. What opportunities for mentorship if any have been offered to you during your time at Virginia Tech? (P5: RQ1)

a. What opportunities of mentorship have you been offered from white faculty/staff from your department in the College of Agriculture and Life Sciences or College of Natural Resources and Environment?
member” (Johnson, 2007, p. 23).

6. Undergraduates perceive mentoring as an opportunity to exchange ideas that are not directive and systematic but instead a supportive environment where undergraduate students are able to develop relationships that are focused on both personal and professional growth between both the mentor and mentee (Retallick & Pate, 2009)

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX F

Thesis Conceptual Frameworks
## RQ 1: In what ways do African American undergraduate students at Virginia Tech enrolled in the College of Agriculture and Science or College of Natural Resources and Environment conceptualize mentoring in relation to their life as a college student?

<table>
<thead>
<tr>
<th>Themes</th>
<th>Subthemes</th>
<th>Focus Codes and Definitions</th>
<th>Open Codes</th>
</tr>
</thead>
</table>
| **Theme 1:** Mentors as a supportive guide and role model | Advising as procedural | Advising vs. Mentoring | advisor  
advisor have direct expectations  
advisor is mentor as well  
advisor is solely focused on academics  
Advisor provides opportunities  
advisee tend to mentor  
Advisors give directions  
advisee having more all-around professional relationships with students  
advisee help student reach graduation  
Advisors not putting the whole student in perspective  
advisee= graduation  
great relationship with advisor  
Knowing your limits with your advisor  
only focused on graduating and meeting requirements  
professional relationships serves as a mentor as well |
| | | Communication | communication  
communication with advisor  
effective communication  
method of communication |
| | | Mentor | CNRE Faculty/Staff (Male)  
CALS Faculty/Staff (female)  
Employed in CALS  
CALS Faculty/Staff (female) University Faculty/Staff (female)  
CALS Faculty/Staff (female) University Faculty/Staff (male)  
University Faculty/Staff (male) |
| | | Understandings and Viewpoints of Mentorship | Can expression their relatable experiences to students  
career  
consistent communication  
Defining Mentorship  
Did not intentional seek for mentorship  
different experiences between mentor and mentee  
 experiential learning to support mentorship  
finding mentorship with in academic setting |
having a mentor make things easier
identifies as mentors
level of experience
level of experience aligns with resources they can provide mentor
Mentor's opinion matters
mentor relationship that mirror support system back home
mentor relationships are one on one interactions
mentoring relationships mentors and students both putting effort out for mentorship relationships
Mentors are able to see your true potential
mentors are active listeners
Mentors are advocates
Mentors are continuously invested
mentors are encouraging
Mentors are more invested in students than advisors are
mentors are reference and resources
mentors are someone to talk to
mentors are supportive
mentors are understanding
mentors at patient
mentors care about welling being
mentors encourage reflective thinking
mentors finding other mentors
Mentors have a personal understanding
mentors help mentee reach success
mentors help mentees accomplish certain goals
Mentors help provide resources for success
mentors help with professional development
mentors help you and are there every step of the way
mentors help you through the good and the bad
mentors influence you
mentors notice growth and change
Mentors offer advice
Mentors offer different perspectives on how to view one's self
mentors pay attention to things going on with mentees
Mentors provide different perspectives
Mentors provide opportunities
Mentors share insight and provide guidance
mentors support mentees
personal aspirations
mentorship and race not linked
Mentorship being accessible mentorship experiences are beneficial
**Development of Biculturality:**

*Student identify mentors that have a range of identities*

<table>
<thead>
<tr>
<th>Ethnic Identities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>There are different ethnic identities that are associated with how individuals identify themselves with the context of the Virginia Tech campus environment. These identities also support how individuals navigate through spaces within the campus communities as well as how they identify mentors. African American students tend to flock to African American faculty/staff for mentorship and advice through their undergraduate experience and beyond.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender Identities- Interactions with mentors</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The various gender identities recognized among mentors. These genders include African American females, white Caucasian female, and white Caucasian males.</td>
<td></td>
</tr>
</tbody>
</table>

**mentorship found outside of CALS or CNRE**

mentorship helps you think beyond the current state

mentors give you an extra push

mentorships in CALS

mirror image

modeling after mentor

motivation

Motivator

Natural interaction

navigation

no structural relationship

not having students be interest

Opportunities to find mentorship beneficial possible mentorship relationships professional relationships proper setting the expectation quality mentorship rapport receiving mentorship through different networks recommended opportunities relationship length sharing experiences similar experiences sought mentorship Support system various opportunities for mentorship viewpoints of mentoring

a person of color affording opportunities for African American students African American African American faculty/staff presence African American in CALS and CNRE African American mentees connecting with African American mentors Asian being African American in a white space Cultural appropriation cultural cliques cultural differences cultural incompetence how you identify identity identifies as a minority Multiracial white culture white faculty involvement

communication communication with advisor effective communication method of communication
RQ 2: How do African American undergraduate students at Virginia Tech enrolled in the College of Agriculture and Science or College of Natural Resources and Environment experience mentoring specifically mentoring within their department and college?

<table>
<thead>
<tr>
<th>Themes</th>
<th>Subthemes</th>
<th>Focus Codes and Definitions</th>
<th>Open Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theme 2: Institutional Fit: Department’s Climate impact on African American Student Matriculation</td>
<td>Department Climate: Experiences CALS/CNRE Interactions: Indirect mentorship and direct mentorship experiences in CALS and CNRE</td>
<td><strong>Experiences CALS/CNRE</strong> Students have had a variety of experiences within CALS/CNRE that have an impact on how they view themselves within the field of agriculture as well as an African American student at Virginia Tech. Students discuss their relationship with their advisors and professors as well the departments culture to which they had to grow to find and develop community in. These experiences highlight the type of various perceptions that students develop about themselves both as students within CALS and CNRE as well as the overall Virginia Tech campus community as a whole.</td>
<td>academic settings advisor advisor have direct expectations advisor is solely focused on academics Advisor provides opportunities advisors aid a broad group of people and interests Advisors give directions advisors having more all-around professional relationships with students advisors help student reach graduation Advisors not putting the whole student in perspective advisors= graduation ALCE Inclusion and Diversity in Agriculture course CALS is a supportive college class conflict comparison of support in colleges consciousness as an educator department culture department list serve department offers many opportunities developing networks through interests developing relationship with professors different experience in the same college or department Different experiences based on academic college/department department offers many opportunities developing networks through interests developing relationship with professors different experience in the same college or department Different experiences based on academic college/department good experience in CALS interactions with African American graduate students knowing your limits with your advisors navigation negative interactions with professors no social interaction in department non-traditional agriculture field not connecting with professors only focused on graduating and meeting requirements</td>
</tr>
<tr>
<td>Racial Prejudices: Inequity and Experiences</td>
<td>Racial Impacts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>---------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are various facets associated with race that have had lasting impact on the African American student experience and how they perceive themselves to be intentionally apart of the Virginia Tech campus community. These feelings lead to these students enduring additional labor trying to justify and prove that what is considered outside of the norm is actually very much so normal, leading to more diversity consideration. From being the only African American in the majority of their classes feeling marginalized and alone, to dealing with issues based on racial consciousness, and tensions due to a lack of diversity.</td>
<td>associated with race assumption assumptions for capabilities Being the only one creating spaces for dialogue for minority student enduring labor Different perceptions outside of what was viewed as normal disconnect with family due to race disconnect with white and black student every black student is an athlete assumption experiences of prejudiced general ignorance highlighted as a minority how race related issues are handled how representation impact involvement ignorant statements impacting the entire AA community interracial relationship issue dealing with race and culture labor for minority students labor relates to inclusive efforts lack of AA network lack of AA to AA acknowledgement lack of access and knowledge on diversity and inclusion efforts lack of an inclusive environment lack of diverse thinking Lack of diversity Lacrosse Team low number of black faculty microaggressions more diversity consideration navigation people perception of identity presence of African American males</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theme 3: Self-Efficacy and Locus of Control: Positive interactions and support from African American Community Structure</td>
<td>Aspects of Community</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extrinsic motivation influences positive intrinsic motivation: Being Built-Up by the African American Community Personal Impacts</td>
<td>There are several different factors that make up and impact the development and sustainability of the Virginia Tech community. From one point of view there is a lack of community overall at Virginia Tech. Students are segregated into their various divides in a number of different divides which make it hard from student who would not normally meet the &quot;norm&quot; to intermingle whether that is inside or outside the classroom. From another point of view there is a lack of community within the African American community due a lack of accessibility and access to other African America students, faculty, and staff. As a solution there is a need for more support within the African American student and faculty community into the campus culture and structure.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building community community culture community engagement conflicts within various communities different understanding of what community is feeling apart of the university community having a community with inclusive viewpoints Lack of community lack of making sure community building is being implemented in campus culture Lack of unity in AA community</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Personal Impacts</th>
<th>Academic success and matriculation academic, personal and, professional success discussion of experience interest interest in STEM/STEAM fields person goals person growth and development person life interactions and experiences personal personal and beneficial engagement Personal Connections personal insight and awareness personal insight of needs personal psyche personal reflections personal understanding of purpose personal well being Representing and making a mark Support system transition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Various personal insights, emotions, feeling and reflections that have an impact on how African American students perceive themselves based on past, current, and future interactions and experiences. Infusing mentorship into their process of growth and development during their undergraduate experience has a large impact on how things impact them personally as well. These personal impacts include student ability to make personal connections that bridge the gap to things that may seem out of the norm for them; to discover inner and personal awareness that, personal understanding of purpose and developing a support system.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social Impacts</th>
<th>Kings and Queens Group Chat reaching back to your home community to navigate social blocks social cliques social interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social interactions intersect with personal perceptions and understandings of several facetw that impact the African American student experience both inside and outside the classroom setting.</td>
<td></td>
</tr>
<tr>
<td>Environmental Interactions: People in various networks providing resources</td>
<td><strong>Function of Resources</strong></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>The Coping Process: Navigating this experience, leaning on the African American community for support</td>
<td><strong>Negative Interaction: How do I cope</strong></td>
</tr>
<tr>
<td>Social Interactions: Organizations that serve students of color</td>
<td><strong>Diversity and Inclusion: Efforts and Encounters</strong></td>
</tr>
</tbody>
</table>

**RQ 3**: African American students, what type of response can institutional leadership offer to initiate and support effective and sustainable cross-racial mentoring to assist in addressing the needs of African American students in the College of Agriculture and Life Sciences or College of Natural Resources and Environment that are not being met?

<table>
<thead>
<tr>
<th>Themes</th>
<th>Subthemes</th>
<th>Focus Codes and Definitions</th>
<th>Open Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theme 4:</strong> University Bureaucratic Structure: The Campus Environment</td>
<td><strong>University Bureaucratic Interactions:</strong></td>
<td>The environment and culture in which the functions and behaviors of the campus community are found and identified as the norm and always benefiting all individuals and entities on campus. The campus culture established here Virginia Tech is one that is not the exact fit for African American students as the culture does not continuously support and the respect the perspective of this particular student group. For African American students due to not being able to fully</td>
<td>being African American in a white space campus as a whole Campus culture campus involvement cook counseling Cultural appropriation cultural cliques</td>
</tr>
<tr>
<td>Negative Impact on the African American Student Experience</td>
<td>Good Intentions Don’t Measure Up</td>
<td>Intentionality in Actions</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
<td>---------------------------------</td>
<td>--------------------------</td>
<td></td>
</tr>
<tr>
<td>conform and accept the ideals of the campus culture they find themselves receiving support and building community outside of the classroom through various organizations outside their academic colleges and departments.</td>
<td>cultural differences, cultural incompetence, fraternities and sororities, how you identify, minimal involvement in clubs/organizations, receiving support outside of the classroom through organization, student athlete, student culture, student experience, transitional campus, utilize on campus resources.</td>
<td>having a mentor make things easier, intentional efforts made to support minority students, intentionally being in certain leadership roles, intentionally making a difference, intention behind supporting minority students, where do intention lie.</td>
<td></td>
</tr>
<tr>
<td>Intentionality in Actions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding how the idea of intentionality creates meaningful understanding and appreciation for individuals, their ideas and how things impact them as African America students here at Virginia Tech. This ranges from the type of spaces they place themselves in as well as how the articulate what they need in order to feel as if they are a part of this campus community.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University Association</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highlighting the dynamics of the university from how decisions are made and dealt was well as how power is distributed. Understanding the decision that the administrative hierarchy makes which has an impact on African American students' experiences. This includes the university's intentions towards diversity efforts and decisions as well as their responses towards making sure all individuals apart of the campus community feel included.</td>
<td>Administrative hierarchy, good intentions, lack of intentional structure, power in society, proper setting the expectation, proper use and implementation of the code of conduct, snowball impact from administrative decisions, structural affirmation, university mentorship initiative, universities need to embrace all student cultures, university advantage, university doesn’t care about how minorities are impacted, university intentions, university response, university take advantage of recruitment strategies, where do intention lie, white culture.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intentionality: Awareness and Engagement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diversity and Inclusion: Methods of change</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are several factor within the idea of making campus environments for diverse and inclusive that need to change. Future goals set in place to support, develop, and sustain future inclusion and diversity efforts. There need to be better method towards handling and addressing issues of diversity and inclusion. The method developed in handling these issues need to be intentional efforts that all individual among the campus community commit to.</td>
<td>dedication to inclusion efforts, Diversity Efforts, engaging without assuming, handling and addressing issue of diversity and inclusion, inclusive environment, intersectionality within cultural community centers and housing and residence life, Making intentional effort, new experiences trigger new perspectives, relationship with African American staff/faculty, research to support diversity efforts, sustainable method of inclusion for people of color.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intentionality: Representation in the campus environment</td>
<td>Needs of Students: Being African American at Virginia Tech</td>
<td>Accessibility</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>--------------------------------------------------------</td>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>Understanding what is means to be an African American student at Virginia Tech and the needs that they have in order to more successfully navigate the various spaces as well as feel a part of the campus spaces as a whole both within their departments as well as in the broader campus community. Student are in need of more accessible opportunities, develop methods of building and sustaining community environments, and developing and maintaining support systems.</td>
<td>Accessibility Affirmation students in the right way afforded opportunities approach being African American in a white space broader perspective Building community career catalysts for change justification known for who I am not what I look like minority presences minority recruitment navigation new experiences trigger new perspectives new opportunities and insights positively recognizing minority students presence is known putting the whole student into perspective rapport reassurance Resources being accessible Support system taking positive advantage of networks and relationships transparent understanding options Using one voice and having input white faculty involvement working towards change</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feasibility of Students Insight of students on the various factors that have an impact on how they view things as well as themselves as both an African American student in CALS and CNRE as well as an African American student at Virginia Tech. These feeling include students’ feeling impacted and inspired to make a mark. Their feelings highlights their interactions with African American graduate students, receiving constructive and intentional assistance, and as well as finding comfort within their supports systems internally and externally from their undergraduate experience. They are experiencing feelings of uncertainty as well as having a lack of relationships with faculty and staff within the department.</td>
<td>assumptions for capabilities bad experience being known for success cannot relate caught of guard compassionate confident conforming to fit in confused current experiences depending on the situation white faculty are helpful doing what you have to do Double burden empowering experiences of other students extra stress Feelings of isolation Feels of not belonging figuring it out on their own getting tasks done Gratitude highlighting accomplishments holistic development</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
how you identify impactful impostures syndrome independent influences of past struggles inspiration interactions with African American graduate students interactions with classmates interactions with peers isolation within academic department justification knowing they exist lack of interaction with classmates lack of social interaction lack of understanding the needs for minority students lack of urgency concerns issues impacting AA students lack of wanting to have a relationship with white faculty lack on opportunity to interact with African American faculty and staff leadership experiences let it roll Losing focus matching words with actions meaningful and impactful minority student experience vs. majority student experience misconceptions of capabilities misconceptions of what is needed motivation multiple reasoning narrow minded method of disseminating information narrow minded views of inclusion navigation need to constructive and intention assistance never experienced no connection no contact no relationship no personal impact on perception no relationship nonexistent not inclusive not black enough not having a connection not realized not student focused one sided commitment overlaid connections poorly planned positive experience postgrad experience rapport reassurance relationship with African American staff/faculty relationship with pressure Representing and making a mark resilient
| respect of different opinions and experiences | unreasonable expectations |
| saying no | seeing the bigger picture |
| self-coping | self-marginalization among different culture/ethnic groups |
| self-satisfaction | sense of belonging |
| shift in interest and feeling due to interaction with people | stress of future |
| Support system | transparent |
| unapologetically me | uncertainty of feeling and understandings |
| uncomfortable understanding of experiences | unsure |
| unaware of personal capabilities | wanted to transfer |
| where do intention lie |