

APPENDIX 1

LETTER TO PROSPECTIVE PARTICIPANTS

Date _____

Dear _____:

My name is Deborah Hall-Greene, a Ph.D. student in the Adult Learning/Human Resource Development Program Area at Virginia Tech. You are invited to participate in a research study, entitled A Qualitative Study on African American and Caribbean Black Males' Performance in a College of Aeronautical Science. Your participation will help me complete the final requirements for my doctoral degree. To make sure I get the needed information, the following groups are being invited to participate:

- African-American males who are former aeronautical students but have already graduated with an aeronautical science degree and employed as a pilot.
- Caribbean black males who are former aeronautical students but have already graduated with an aeronautical science degree and employed as a pilot.
- African-American male aeronautical students who are categorized as juniors and/or seniors in good standing at Embry-Riddle.
- Caribbean black male aeronautical students who are categorized as juniors and/or seniors in good standing at Embry-Riddle.
- African-American males (former aeronautical science students) who withdrew from the College of Aeronautical Science prior to completion.
- Caribbean black males (former aeronautical science students) who withdrew from the College of Aeronautical Science prior to completion.

The purpose of my study is to examine the performance of African-American and Caribbean black males who are able to persist in the College of Aeronautical Science at Embry-Riddle. Additionally, this study will address the differences in perceptions and experiences amongst the two groups. The findings will be used to gain insight into how some Black males persevere in aviation disciplines and others do not. In addition, this study attempts to better understand the institutional barriers that are perceived as having to overcome in order to persist as an aviation student and to pinpoint the factors that most influenced their decision to pursue aviation/piloting. More importantly, I am hoping that this study will provide the groundwork for the development of a theoretical model that has implications for recruiting, retaining, and graduating Black males.

This study will utilize both focus groups (approximately 2 hours) and individual interviews (approximately 1 hour). These qualitative research methods will allow you to share your stories and experiences in the College of Aeronautical Science at Embry-Riddle, and the surrounding community in general. In addition, these interviews will allow you to share any other information related to your persistence *in or out* of aviation.

I will not release any information that can identify you. *All information will be kept strictly confidential.* As a way of securing anonymity, the information that you provide will be assigned a code. A tape recorder will be used to record both the group and individual interviews, and the audio tapes will be transcribed verbatim.

If you are interested in participating in this valuable study, please send me an email ([email address](#)) or give me a call (phone number) regarding this matter. Please let me know whether you plan to participate in this study no later than (date) . Additional information will be forwarded should you decide to participate. Thank you in advance for your help.

Sincerely,

Deborah Hall-Greene
Researcher

APPENDIX 2

Informed Consent Form

Title of Research: A Qualitative Study on African American and Caribbean black males' performance in a College of Aeronautical Science

Principal Investigator: Deborah Hall-Greene

PURPOSE OF RESEARCH:

This research study is being conducted to fill part of the requirements for a Ph.D. dissertation. Its purpose is to examine the performance of a small group of Black males who were able to persist in the College of Aeronautical Science at Embry-Riddle Aeronautical University. It is intended that this study will provide the groundwork for the development of a theoretical model that has implications for recruiting, retaining, and graduating Black males. Such a model will compliment existing literature related to academic success and achievement in higher education. The qualitative study will utilize both focus groups and individual interviews.

PROCEDURES:

These research methods will allow Black males to share their stories and experiences through both individual and group discussions. The findings will be used to gain insight into how some Black males persevere in aviation disciplines and others do not. In addition, this study attempts to better understand the institutional barriers that are perceived as having to overcome in order to persist as an aviation student and to pinpoint the factors that most influenced their decision to pursue aviation. The study also considered the differences in how African American males and Caribbean black males perceived and acted upon the same experiences.

The participants will consist of Black males who are former aviation students and have already graduated with an aviation degree from ERAU and working as a pilot; Black males (former aviation students) who left the program, either to pursue another major or abandon college altogether; and current students at the junior/senior level in good academic standing.

The focus group interviews will range from 2.5 to 3.0 hours, and the individual interviews will range from 30 minutes to 1 hour.

ANOYMITY AND CONFIDENTIALITY:

The researcher will not release any information that can identify you. All information will be kept strictly confidential. As a way of securing anonymity, the information that you provide will be assigned a code. A tape recorder will be used to record both the focus groups and individual interviews, and the audiotapes will be transcribed verbatim.

The principal investigator will interview you. Please note that sensitive information may arise during the interview discussions. *For this study, complete confidentiality is required to protect the privacy of other participants.*

RISKS AND BENEFITS:

There are no risks related to this study. If any problems occur, the researcher will refer and/or consult with appropriate resources, up to and including the researcher's advisor and committee members.

FREEDOM TO WITHDRAW:

You are free to remove yourself from the study at any time.

APPROVAL OF RESEARCH:

Please note that Virginia Tech's Institutional Review Board (IRB) has approved this research study.

PARTICIPANT'S PERMISSION:

For any research conducted on this study, participants must fill-out and complete an informed consent form in order to participate in the research project. Signing below indicates that you agree to participate in this study. In addition, it indicates that you agree to keeping the interviews confidential and fulfilling the specified requirements.

Participant's Signature

Printed Name

Local Address

Phone Number(s)

Email

If you have any questions related to this study, please address your questions to the following people:

Deborah Hall-Greene, Investigator	(703) 000-0000
Dr. Albert Wiswell, Advisor	(703) 000-0000
Dr. M.G. Cline, Research Advisor	(703) 000-0000

APPENDIX 3

INDIVIDUAL INTERVIEW GUIDE

(Persisters)

(Adapted from Moore, 1999; Hines, 1997; Wambach, 1993)

Culture and Climate of Aviation

1. What words best describe what it is like to be a Black male in the College of Aeronautical Science?
2. How has being a Black man in a non-traditional major affected you?
3. Does the culture or climate on aviation present any barriers for Black men?
4. Describe your experiences in the classroom, beginning with the first year. Faculty? Advisors? Peers?

Family Factors

2. Describe the different type of family support you received from your (nuclear or extended) family.

Probe:

- Emotional?
- Social?
- Financial?
- Academic?
- Other?

3. Describe your parents' philosophy on education.

Probe:

- What role did they (your parents) play in your education?
- What kind of educational toys and games did they (your parents) buy you?
- Do you think they (educational toys and games) helped develop your academic skills?
- If so, how?

4. What experiences during your early childhood years stirred your interest in math and science?

Persistence

5. Describe your personality.
6. What motivated you to do well in the aviation program?
7. While in the program, what sort of things did you do to improve your grades?

Opting for Aviation

8. Tell me what made you decide to major in aviation (probe for the points below only if not mentioned).

Probe:

- Family member?
- Teacher?
- School Counselor?
- Friend?

- Book/Film/Movie?
- Math/Science program?
- Money?
- Other?

9. Did you ever feel like switching majors? Dropping out of school?

Probe:

- If yes, what were the turning points that caused you to feel this way?
- If no, how did you stay focused on your goals?

General Stuff

9. Is there anything related to this study I haven't asked that you want to add?

APPENDIX 3a

INDIVIDUAL INTERVIEW GUIDE

(Non-Persisters)

(Adapted from Moore, 1999; Hines, 1997; Wambach, 1993)

Culture and Climate of Aviation

1. What words best describe what it was like to be a Black male in the College of Aeronautical Science?

Family Factors

2. Describe the different type of family support you received from your (nuclear or extended) family while you were in the College of Aeronautical Science.

Probe:

- Emotional?
- Social?
- Financial?
- Academic?
- Other?

3. Since you changed your major, has your family support changed in any way? If so, how?
4. Describe your parents' philosophy on education.

Probe:

- What role did they (your parents) play in your education?
- What kind of educational toys and games did they (your parents) buy you?
- Do you think they (educational toys and games) helped develop your academic skills?
- If so, how?

5. What experiences during your early childhood years stirred your interest in math and science?

Persistence

6. Describe your personality.
7. What motivates you to do well in school?
8. While in the College of Aviation, what sort of things did you do to improve as a student?

Probe:

- What do you do now, since you changed your major?

Opting for Aviation

9. Tell me what made you initially decide to major in aeronautical science? (probe for the points below only if not mentioned).

Probe:

- Family member?
- Teacher?
- Counselor?

- Friend?
- Book/Film/Movie?
- Math/Science program?
- Money?
- Other?

10. What was the turning point that made you decide to change your major? Are you happy with your new major? If not, why?

General Stuff

11. Is there anything related to this study I haven't asked that you want to add?

APPENDIX 4
INTERVIEW GUIDE (Focus Group)
(Adapted from Moore, 1999; Hines, 1997; Scott, 1995)

Culture and Climate of Aviation

1. Describe your experience in the College of Aeronautical Science.

Probes:
 - Which of these experiences that you have mentioned (if any) stands out the most?
 - What distinguishes these experiences from others?
2. Do you think that your race had any bearing on your academic performance in the College of Aeronautical Science? If so, how?

Probes:
 - Positively? Negatively?
3. What words best describe what it is like to be a Black male in the College of Aeronautical Science?
4. In your opinion, did the aviation culture or climate present any obstacles for Black males?

Probes:
 - If yes, how were you able to persist in spite of these obstacles?
 - If no, how do you think other Black males were able persist in aviation?
5. Why do you believe many Black males have trouble persisting through the aviation program?

Services and Sources of Support

6. What academic services or resources on campus did you use?

Probes:
 - If anything is identified, then ask: “How did these services help your academic performance?”
 - If nothing is identified, then ask: “Which services do you think would have helped you improve your academic performance?”
7. What role did the following variables play in your persistence in the College of Aeronautical Science?

Probes (separate the probes with pauses and answers so they will not skip over any of them):
 - Family?
 - Faculty?
 - Academic Advisor/Counselor?
 - Friends?
 - Faith?
 - Financial support?
 - Minority Aviation Programs?
8. If you could change anything about your experience in the College of Aeronautical Science, what would it be? Why?

General Stuff

9. Is there anything related to this study I haven’t asked that you feel compelled to add?

APPENDIX 5

INTERVIEW FOLLOW-UP

Hello, _____, this is Deborah Hall-Greene. I am
(Student's Name)
calling/emailing to thank you for participating in the interview. Your participation
was invaluable to my research, and I was just wondering if you would like to share
any additional information related to the interview (Wait for response).

Record Response(s):

_____, your input has been very helpful. Would you
(Student's Name)
like to receive a summary of my findings after I complete my research? _____ (Yes)
or _____ (No). If yes, would you like for me to send it by _____ email or
_____ U.S. mail? Again, thanks for participating and take care!

APPENDIX 6
BIOGRAPHICAL QUESTIONNAIRE

(Adapted from Moore, 1999; Ross, 1995; Scott, 1995; Taylor, 1994)

Last Name _____ First Name _____ Middle Name _____

Date of Birth: Month _____ Day _____ Year _____

Place of Birth: City _____ State _____

Country _____

If not the United States, what year did you come here? _____

What year did you enroll at ERAU? _____

What was your high school GPA _____

Check (√) the category that best describes when you decided to major in engineering:

- _____ Before High School
- _____ Freshman Year of High School
- _____ Sophomore Year of High School
- _____ Junior Year of High School
- _____ Senior Year of High School
- _____ After College
- _____ Other (please specify) _____

After initially enrolling (first semester) at ERAU, when did you anticipate on graduating? Term _____ Year _____

Did you start your first year at ERAU or college in aviation? Yes _____ No _____

If no, what major did you start in before changing to aviation? _____

When you first enrolled at ERAU, what did you expect your overall GPA to be? _____

What was your overall GPA when you dropped out or graduated? _____

When you first enrolled at ERAU, how many semesters did you expect it would take for you to complete your degree? _____

How many total semesters did it take? _____

Have you ever been on academic probation and suspension? Yes _____ No _____

If yes, how many times? Probation _____ Suspension _____

What are your career goals? _____

Do you have any siblings? Yes _____ No _____

If yes, how many brothers _____ and how many sisters _____

If yes, what is your birth order (e.g., first born, youngest, etc.)? _____

If yes, how many of your siblings completed college? Brother(s) _____
 and/or Sister(s) _____

Check (√) the highest educational level completed by your parents:

	Mother:	Father:
No school	_____	_____
Elementary School	_____	_____
Middle School	_____	_____
High School Diploma Equivalent	_____	_____
Business or Trade School	_____	_____
Some College	_____	_____
Two Year Degree	_____	_____
Four Year Degree	_____	_____
Some graduate or Professional School	_____	_____
Graduate or Professional Degree	_____	_____

What was the racial/ethnic make-up of the schools you attended while growing up (estimate)?

- _____ Predominately African-American
- _____ Predominately White
- _____ Predominately Other (please specify) _____
- _____ Evenly Distributed with African-American and White
- _____ Evenly Distributed with Other (please specify) _____
- _____ Other (please specify) _____

What was the community make-up where you grew up?

- _____ Predominately African-American
- _____ Predominately White
- _____ Predominately Other (please specify) _____
- _____ Evenly Distributed with African-American and White
- _____ Evenly Distributed with Other (please specify) _____

_____ Other (please specify) _____

Check (✓) the category that best describes your up bringing:

Suburban _____ Rural _____ Urban _____

Check (✓) the category that best describes your up bringing:

Single-Parent Home _____ Two-Parent Home _____

If you grew-up in a single-parent home, whom did you stay with: _____ Mother,
_____ Father, _____ Grandmother, _____ Grandfather _____,
or Other _____ (please specify).

How are you paying for your education (check all that apply): scholarship(s) _____,
grant(s) _____, loan(s) _____, parent(s) _____, part-time
job(s) _____, or other (please specify) _____

When you were high school, what was your family's yearly income (please estimate)?

_____ Under \$10,000	_____ \$10,000 - \$14,999	_____ \$15,000 - \$19,999
_____ \$20,000 - \$24,999	_____ \$25,000 - \$29,999	_____ \$30,000 - \$34,999
_____ \$35,000 - \$39,999	_____ \$40,000 or over	

During the school year, how many semesters have you been employed? _____

If ever employed, list the types of jobs (employment) _____

If ever employed, how many days and hours did you normally work? Days _____
Hours _____

What extra-curricular activities did you participate in high school?

What extra-curricular activities did you participate in at ERAU?

What was your main reason for attending ERAU?

In descending order, please identify the most significant influences (e.g., persons, institutions, programs, etc.) in making your decision to major in aviation (#1 being the most significant).

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

In descending order, please identify your most difficult challenges in aviation (#1 being the most difficult).

1 _____

2 _____

3 _____

4 _____

5 _____

What advice would you give to ERAU in improving such challenges for other Black males?

APPENDIX 7

LISTENING GUIDE CHECKLIST FOR INTERVIEWS

Interview	Listening 1	Listening 2	Listening 3	Listening 4
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

APPENDIX 8
Parental Education Level

Code	<H.S.	H.S./Equiv.	Some Coll.	BA/BS	Some Grad	MA/MS
AFP1			F	M		
CAP2	F	M				
CAP3		M				F
AFP4			F	M		
CAP5		M,F				
CAP6		M,F				
AFN1			M			
AFN2				M,F		
AFN3					M	F
AFN4				M,F		
AFCS1				M,F		
CACS2		M				
CACS3			M			
CACS4		M,F				
CACS5		M	F			

Key: M=Mother
F=Father

APPENDIX 9

PERSONALITIES

AFP1:	determined, independent, introverted, confident, achiever, goal-oriented
CAP2:	motivated, strong, determined, works under pressure, confident, assertive
CAP3:	strong, resilient, determined
AFP4:	goal-oriented, assertive, strong, determined
CAP5:	mature, confident
CAP6:	motivated, bullheaded, stubborn, achiever
AFN1:	easy-going, hard-worker, capable
AFN2:	noncompetitive, laid back, quiet
AFN3:	introverted, non-competitive, hard-worker, reserved
AFN4:	assertive, confident, opinionated
AFCS1:	achiever, competitive, motivated, leader, organized
CACS2:	strong willed, good reasoning, hard-worker
CACS3:	goal-oriented, hard-worker, determined, motivated
CACS4:	independent, motivated, likes a challenge, determined, stubborn
CACS5:	introverted, independent, competitive, determined, self-reliant

APPENDIX 10
Academic Variables

Participant	Academic Strengths	Academic Weaknesses	High School GPA	High School Rank	SAT Scores
AFP1	Math	None	3.9	12/170	?
CAP2	Math, science	English	4.3	2/136	970
CAP3	Math, science	None	3.8	?	?
AFP4	Science	Govt	3.7	20/?	1050
CAP5	Math, science	English	4.2	2/?	780?
CAP6	Math	None	3.5(+)	30%	1250
AFN1	Math	History	3.3	?	1120
AFN2	English, math	Chemistry	4.0	25/200	1220
AFN3	English, math	Writing	>3.3	40/370	1100
AFN4	Math, science	None	3.7	Varied*	?
AFCS1	Math	None	4.0	5/>150	1190
CACS2	Math, chem.	Physics	3.5	?	>1000
CACS3	Math	English	>3.3	25/200	1070
CACS4	Math	History	3.8	40/370	1200
CACS5	Math, science	None	3.5	?	?

*military family – attended three different high schools – rank varied.

APPENDIX 11

REASON FOR AVIATION CHOICE OF MAJOR FREQUENCY COUNTS

Reasons	African American males	Caribbean black males
Contribution to society	1	
Encouragement	2	1
Exposure/hands-on exp	3	4
Academic background	2	3
Influence or role model	1	2
Interest	2	7
Math/science ability	3	6
Personality	1	
Structure of opportunity	4	8

APPENDIX 12

Role of Guidance Counselors

Positive

I had a really good guidance counselor – mainly because my mom was a teacher and on top of everything going on. [AFP1]

Neutral

Our guidance counselors just wanted everyone to go to college somewhere, you could major in anything. [AFP4]

I don't think mine knew anything about aviation. Very little people did in my school. [AFN3]

I don't recall getting guidance from her, one way or another on aviation. [CAP2]

Negative

Most guidance counselors don't encourage blacks to go into a math or science field. [AFN2]

My guidance counselor was a joke – he hadn't a clue. [AFN1]