APPENDIX A
DIRECTIONS
ATTITUDE TOWARDS MATHEMATICS SURVEY
LEWIS R. AIKEN, Ph.D.

On the following page is a series of statements. There are no right or wrong answers. These statements have been designed to permit you to indicate the extent to which you agree or disagree with the expressed ideas in each statement.

As you read each statement, you will know whether you agree or disagree. If you strongly agree, circle the SA to the right of the statement. If you agree with reservations or you do not fully agree, then, circle A for Agree. If you disagree with the statement, indicate the extent to which you disagree and circle D for Disagree or SD for Strongly Disagree. But if you neither agree nor disagree, circle U for Undecided. Further, if you cannot answer a question, circle U for Undecided.

Do not spend much time with any one statement, but be sure to answer each of the statements. The responses will be kept confidential. The results of the study will be made available to students, upon request, after the end of the semester.

Your cooperation in completing the pretest and posttest for the Attitude Towards Mathematics and the Basic Arithmetic test will be extremely valuable and deeply appreciated.

THIS INFORMATION IS BEING USED FOR RESEARCH PURPOSES ONLY AND YOUR INDIVIDUAL RESPONSES WILL BE KEPT CONFIDENTIAL.
<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I am always under a terrible strain in a math class.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>2.</td>
<td>I do not like mathematics, and it scares me to have to take it.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>3.</td>
<td>Mathematics is very interesting to me, and I enjoy math courses.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>4.</td>
<td>Mathematics is fascinating and fun.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>5.</td>
<td>Mathematics makes me feel secure, and at the same time it is stimulating.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>6.</td>
<td>My mind goes blank, and I am unable to think clearly when working math.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>7.</td>
<td>I feel a sense of insecurity when attempting mathematics.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>8.</td>
<td>Mathematics makes me feel uncomfortable, restless, irritable, and impatient.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>9.</td>
<td>The feeling that I have toward mathematics is a good feeling.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>10.</td>
<td>Mathematics makes me feel as though I'm lost in a jungle of numbers and can't find my way out.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>11.</td>
<td>Mathematics is something which I enjoy a great deal.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>12.</td>
<td>When I hear the word math, I have a feeling of dislike.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>13.</td>
<td>I approach math with a feeling of hesitation, resulting from a fear of not being able to do math.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>14.</td>
<td>I really like mathematics.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>15.</td>
<td>Mathematics is a course in school which I have always enjoyed studying.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>16.</td>
<td>It makes me nervous to even think about having to do a math problem.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>17.</td>
<td>I have never liked math, and it is my most dreaded subject.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>18.</td>
<td>I am happier in a math class than in any other class.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>19.</td>
<td>I feel at ease in mathematics, and I like it very much.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>20.</td>
<td>I feel a definite positive reaction to mathematics: it's enjoyable.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
</tr>
</tbody>
</table>
April 28, 1997

Dr. David P. James, Dean
Educational Development
Prince George's Community College
301 Largo Road
Largo, Maryland 20774

Dear Dr. James:

I am currently enrolled in a doctoral program at Virginia Polytechnic
Institute and State University, Blacksburg, Virginia. My dissertation topic is:
An Assessment Of The Attitudes and Outcomes of Students Enrolled in
Developmental Basic Mathematics Classes At Prince George’s Community
College. In order to complete my research, I need your permission to conduct
a survey involving developmental mathematics students and faculty.

This letter is to request permission to conduct my research. I assure you
that the response(s) of the participants will remain anonymous and that their
names will not be mentioned through general conversation or in print.

Sincerely,

Lorraine P. Bassette
May 5, 1997

Lorraine P. Bassette, Professor
Business Management Department
Prince George’s Community College
Largo, Maryland 20774

Dear Professor Bassette:

I am concurring with your request to conduct a survey involving developmental mathematics students and faculty in relationship to your dissertation topic of "An Assessment Of the Attitudes and Outcomes of Students Enrolled In Developmental Basic Mathematics Classes At Prince George’s Community College."

Please feel free to contact me if you need further information. Best wishes in the pursuit of your doctorate.

Sincerely,

Dr. David P. James
Dean of Educational Development and Degree/Extension Centers and Special Programs
January 20, 1998

Dear DVM001 Basic Arithmetic Faculty:

    I sincerely thank you for your assistance and participation in conducting the Attitude Towards Mathematics Survey and providing the information on student performance in the DVM001 Basic Arithmetic course.

    Your timely response and individual input is greatly appreciated.

Again, thank you.

Sincerely,

Lorraine P. Bassette
December 3, 1997

Dear DVMO01 Faculty:

I appreciate your assistance in helping me to conduct this research study on the attitudes towards mathematics and the outcomes of students enrolled in DVMO01 (Basic Arithmetic).

In each envelope is the Attitude Towards Mathematics Survey and a roster for each class with columns to insert the final departmental examination grade and the final course grade of each student.

Please complete the surveys and rosters at the end of this semester and return them to Bladen Hall, Room 208.

Thank you for your continued support and assistance with this project.

Sincerely,

Lorraine P. Bassette
Dear Dr. Aiken, Jr.: 

I am a doctoral student at Virginia Polytechnic Institute and State University in Blacksburg, Virginia. My area research is an assessment of the attitudes and academic achievement of students that are enrolled in Developmental Mathematics (DVM 001) Basic Arithmetic at Prince George's Community College. In order to complete my research, I am requesting permission to use the Aiken-Dreger Math Attitude Test to collect information and reproduce it in the appendix. I will appreciate your assistance in this matter.

Sincerely,

Lorraine P. Bassette
June 27, 1997

Dr. Lewis R. Aiken, Jr.
Department of Psychology
Sacred Heart College
Bolnton, North Carolina 28012

Dear Dr. Aiken, Jr.:

I am a doctoral student at Virginia Polytechnic Institute and State University in Blacksburg, Virginia. My area of research is an assessment of the attitudes and academic achievement of students that are enrolled in Developmental Mathematics (DVMO01) Basic Arithmetic at Prince George's Community College. In order to complete my research, I am requesting permission to use the Aiken-Dreger Math Attitude Test to collect information and reproduce it in the appendix. I will appreciate your assistance in this matter.

Sincerely,

Lorraine P. Bassette
June 7, 1999

Professor Lorraine P. Bassette  
Business Management Department  
Prince George's Community College  
301 Largo Road  
Largo, MD 20774

Dear Professor Bassette:

I wholeheartedly support your efforts to further our knowledge about the college's developmental student population as part of your doctoral dissertation. To that end you certainly have my permission to access and use any data you need for the students in your sample.

It is my understanding that the data will be kept in strict confidence and that all student identities will be hidden in your final paperwork. Good luck on this final leg of your doctoral journey. I hope you'll share your research with me when it's completed.

Sincerely,

Vera L. Bagley, Director  
Admissions and Records
Project Title: AN ASSESSMENT OF THE ATTITUDES AND OUTCOMES OF STUDENTS ENROLLED IN DEVELOPMENTAL MATHEMATICS CLASSES AT PRINCE GEORGE'S COMMUNITY COLLEGE

1. The criteria for "exemption" from review by the IRB for a project involving the use of human subjects and with no risk to the subject is listed below. Please initial all applicable conditions and provide the substantiating statement of protocol.
   a. The research will be conducted in established or commonly established educational settings, involving normal educational practices. For example:
      1) Research on regular and special education instructional strategies;
      2) Research on effectiveness of instructional techniques, curricula or classroom management techniques.
   b. The research involves use of education tests: (cognitive, diagnostic, aptitude, achievement), and these cannot be identified directly or through identifiers with the information.
   c. The research involves survey or interview procedures, in which:
      1) Subjects cannot be identified directly or through identifiers with the information;
      2) Subject's responses, if known, will not place the subject at risk of criminal or civil liability or be damaging to the subject's financial standing or employability;
      3) The research does not deal with sensitive aspects of subject's own behavior (illegal conduct, drug use, sexual behavior, alcohol use);
      4) The research involves survey or interview procedures with elected or appointed public officials, or candidates for office.
   d. The research involves the observation of public behavior, in which:
      1) The subjects cannot be identified directly or through identifiers;
      2) The observations recorded about an individual could not put the subject at risk of criminal or civil liability or be damaging to the subject's financial standing or employability;
      3) The research does not deal with sensitive aspects of the subject's behavior (illegal conduct, drug use, sexual behavior, or use of alcohol).
   e. The research involves collection or study of existing data, documents, recording pathological specimens or diagnostic specimens, of which:
      1) The sources are publicly available; or
      2) The information is recorded such that the subject cannot be identified directly or indirectly through identifiers.

2. I further certify that the project will not be changed to increase the risk or exceed exempt condition(s) without filing an additional certification or application for use by the Human Subjects Review Board.

Note: If children are in any way at risk while this project is underway, the chairman of IRB should be notified immediately in order to take corrective action.

Lorraine P. Basset 5/26/98
Investigator(s)/Date

Departmental Reviewer/Date 5/26/98

Chair, Institutional Review Board/Date
Vita

Lorraine Pratt Bassette
6066 Valerian Lane
Rockville, Maryland 20852

Education:

2005 Doctor of Education, Virginia Polytechnic Institute and State University, Blacksburg, Virginia; Major: Educational Leadership & Policy Studies

1973 Master of Arts, Catholic University of America
Washington, D. C. Major: Administration and Supervision

1970 Bachelor of Science, Central State University, Wilberforce, Ohio
Major: Business Administration

Professional Experience:

1980 – Present
President, Pratt-Bassette Associates Management Consultants,
Rockville, Maryland

1977 – Present
Professor of Business Management
Prince George's Community College
Largo, Maryland

1988 – Present
Associate Professor of Business Management
University of Maryland University College
Adelphi, Maryland

2002- 2004
President
Jack and Jill of America, Montgomery County Maryland Chapter
Silver Spring, Maryland

Special Recognition:

Who’s Who Among America’s Teachers 1998 and 2002
Teaching Excellence Award 2003