AGENDA

Meeting: Wednesday, February 19, 2003, 1:30-3:30 p.m.
Bonnie McCabe Hall, Wolfson Campus, Room 5507

I. Review of Minutes

II. Reports
   A. Testing Directors
   B. Applications Development/Odyssey Issues (David Kaiser)
   C. IR Activities (Cathy Morris/Joanne Bashford)
   D. Enrollment Management (Rene Garcia)

III. Follow-up Items(s)
   A. Status of ACT-ESL Approval Process (Silvio Rodriguez)
   B. Web-based Information and Assistance for CPT & CLAST Preparation (I. Cobham)
      (Silvio Rodriguez)

IV. New Business
   B. TOEFL Exemption Score
   C. CCT Update and Review Process

Next Meeting:
The next meeting of the Research and Testing Committee is on March 19, 2003, 1:30 p.m.,
Bonnie McCabe Hall, Room 5507, Wolfson Campus.

CM/rmz

cc: David Brubeck, Chair, CASSC
    Karen Hays
Since 1985, The State of Florida has required entry-level testing for students seeking Associate in Arts and Associate in Science degrees. Students whose native language is not English may be required to take another test to measure their English proficiency before entry-level testing is permitted. The State also requires institutions offering Postsecondary Vocational Certificate Education to test vocational students entering their programs. This year's Placement Criteria Document is divided into four parts: I. Placement Criteria for Degree and Credit Certificate Programs - Seeking Students; II. Criteria for Degree and Credit Certificate-Seeking Students with Limited English Proficiency; III. Procedures for Testing and Placement Criteria for Vocational Credit Certificate Programs; and IV. Procedures for Testing and Placement Criteria for Adult General Education Programs.

I. PLACEMENT CRITERIA FOR DEGREE AND CREDIT CERTIFICATE PROGRAMS - SEEKING STUDENTS

Since July 1, 1995, The State of Florida has required each public college and university to obtain scores on one of the following test batteries for degree-seeking students prior to registration: Scholastic Assessment Test (SAT), American College Testing (ACT), or the Florida College Entry-Level Placement Test. The Florida College Entry-Level Placement Test consists of the Computerized Placement Test (CPT) and a paper and pencil version of the CPT. The term CPT will be used in this document to designate both forms of this test.

The State sets minimum scores below which college preparatory work is required in reading, writing, and algebra. These minimum scores were first set in January 1985, revised in August 1991, and revised again to be effective July 1, 1996. Miami-Dade Community College (M-DCC) implemented the new scores on July 1, 1997 after receiving a one-year exemption. M-DCC requires additional testing in mathematics depending on the score received on the algebra section of the CPT. Placement scores are valid for two years. A registration hold is in place to prevent student registration until scores are presented. Further assessment may be conducted in courses. Students may retest once on each subtest of the CPT for initial placement prior to enrollment in any course within that subject area. Students not eligible for CPT retesting may only be referred for retesting by the department chairperson. Academic support labs are available to prepare eligible students to re-take the CPT.

REQUIRED TO TEST:

1. All degree-seeking first-time-in-college students and all credit certificate-seeking students in programs of 12 credits or more, first-time-in-college students who designate themselves as degree-seeking. Such students may not register for any credit course at M-DCC until they have a set of complete scores on file.
2. All students who register for any English or mathematics course.
3. All students who register beyond 12 cumulative credits.
4. All dual enrollment students. High school students whose scores place them in college preparatory courses are not permitted to dual enroll at M-DCC in courses which require skills in the area for which college preparatory work is needed.
5. All students who took a placement examination more than two years ago and whose scores have not been used for placement decisions.
6. All students who took a placement examination more than two years ago whose scores were used for placement but who have not yet passed the course(s) into which they were placed or higher level course(s) in the same subject area.
EXEMPTED FROM TESTING:

1. Students who have earned an associate degree or higher from an regionally accredited United States institution. Official documentation is required.

2. Students who have earned a grade of "C" or higher in both a college-level English composition course and a college-level algebra course from an regionally accredited United States or foreign institution where the official language of instruction is English. Official documentation is required.

3. Students who have previously attended another college or university and are enrolling for courses to transfer to their primary institution (and who are not seeking a degree at M-DCC) are exempt from basic skills testing unless they enroll in an English or mathematics course.

4. Students who present SAT-I or ACT scores which meet State requirements (see table below). If multiple test results are on record, the highest subtest scores are used. Placement scores are valid for two years. Any score below that needed for exemption will result in testing on the appropriate CPT subtest(s). For students presenting passing mathematics scores in specific score ranges*, the College-Level Mathematics subtest of the CPT will be used to determine placement into advanced mathematics courses.

<table>
<thead>
<tr>
<th>Skill Area</th>
<th>ACT Subtest</th>
<th>SAT-I Subtest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>Reading &gt;=18</td>
<td>Verbal &gt;=440</td>
</tr>
<tr>
<td>Writing</td>
<td>English &gt;=17</td>
<td>Verbal &gt;=440</td>
</tr>
<tr>
<td>Mathematics*</td>
<td>Math &gt;=19</td>
<td>Math &gt;=440</td>
</tr>
</tbody>
</table>

*Placement into MAT 1033 if ACT scores 19-20 or SAT-1 scores 440-499 or refer for CPT College-Level Math subtest. If ACT scores 21 or higher or SAT-1 scores 500 or higher, placement into MAC 1105 or refer to Mathematics Department advisor for placement into other advanced mathematics courses.

Notes:
Students who have already registered in a math course (and are past the 100% refund deadline) are not eligible to sit for the college-level mathematics subtest without permission from the chairperson of the Mathematics Department.
If combined SAT-I score is 1,200 or more or composite ACT score is 26 or more, student may be eligible for Honors College.

5. Students who present a “college ready” high school diploma from a Florida public school are exempt from basic skills testing for two years following award of diploma. The college-level mathematics subtest on the CPT will be used to determine placement into advanced mathematics courses.

6. Students in specified programs for which the College President may waive assessment within the guidelines provided by State Rule.
# PLACEMENT CRITERIA FOR ACADEMIC YEAR 2003-2004

MIAMI-DADE COMMUNITY COLLEGE

COLLEGE ACADEMIC AND STUDENT SUPPORT COUNCIL

## 2002-2003 2003-2004 COURSE PLACEMENT GUIDE

### Reading

<table>
<thead>
<tr>
<th>Reading Score</th>
<th>Required Placement</th>
<th>Writing Score</th>
<th>Required Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 - 50</td>
<td>REA 0001(^{(2)})</td>
<td>20 - 50</td>
<td>ENC 0002</td>
</tr>
<tr>
<td>51 - 70</td>
<td>REA 0002</td>
<td>51 - 70</td>
<td>ENC 0020</td>
</tr>
<tr>
<td>71 - 82</td>
<td>REA 0010</td>
<td>71 - 82</td>
<td>ENC 0021</td>
</tr>
<tr>
<td>83 - 120</td>
<td>None Required(^{(3)})</td>
<td>83 - 120</td>
<td>ENC 1101(^{(3)})</td>
</tr>
<tr>
<td>100 - 120</td>
<td>Honors Option(^{(4)})</td>
<td>100 - 120</td>
<td>Honors Option(^{(4)})</td>
</tr>
</tbody>
</table>

### Writing

### Mathematics

Placement may be based on a combination of tests. Arithmetic scores are required for students scoring below the noted score on the Algebra subtest and determine placement for those students.

<table>
<thead>
<tr>
<th>Algebra Score</th>
<th>Arithmetic Score</th>
<th>College Level Mathematics Score</th>
<th>Required Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 - 71</td>
<td>20 - 29</td>
<td>Not Required</td>
<td>MAT 0002(^{(5)})</td>
</tr>
<tr>
<td>30 - 64</td>
<td>Not Required</td>
<td>MAT 0020(^{(4)})</td>
<td>MAT 0024</td>
</tr>
<tr>
<td>65 - 120</td>
<td>Not Required</td>
<td>MAT 0020(^{(4)})</td>
<td>MAT 0024</td>
</tr>
<tr>
<td>72 - 89</td>
<td>Not Required</td>
<td>Not Required(^{(6)})</td>
<td>Recommended Placement</td>
</tr>
<tr>
<td>90 - 120</td>
<td>Not Required</td>
<td>20 – 39</td>
<td>MAT 1033(^{(3)}) (^{(4)})</td>
</tr>
<tr>
<td></td>
<td></td>
<td>40 – 62</td>
<td>MAC 1105(^{(3)}) (^{(4)}), MGF 1106 (^{(3)}) (^{(4)})</td>
</tr>
<tr>
<td></td>
<td></td>
<td>63 - 120</td>
<td>Refer to Math Department</td>
</tr>
</tbody>
</table>

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(1) Further assessment may be conducted in courses.
(2) Students scoring at this level must see an advisor prior to registering.
(3) If CPT scores are college-level in all skill areas, students may be eligible for Honors College. Refer to appropriate office.
(4) If both scores meet these levels, student may be eligible for Honors program.
(5) New courses replacing MAT 0003, MAT 0012, MAC 1102, & MGF 1113 beginning Fall Term 1999-1.
(6) MAT 1033 satisfies math requirement only for students admitted prior to 1996-1 and continuously enrolled.
(7) College-Level Mathematics subtest available upon request. Students who have already registered in a mathematics course (and are past the 100% refund deadline) are not eligible to sit for the college-level mathematics subtest without permission from the chairperson of the Mathematics Department.

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**Notes:**

**Placement Guide:** The following placement scores on the CPT are in effect. If scores on one or more of the subtests require college preparatory placement, students must enroll in at least one college preparatory course during their first term. Students placing into college preparatory course work in one skill area are required to enroll concurrently in SLS 1505; students placing in two or more skill areas are required to enroll concurrently in SLS 1535. Students who have not satisfied college preparatory reading requirements may not enroll in college-level English even if their writing test scores are 83 or higher.
II. CRITERIA FOR DEGREE AND CREDIT CERTIFICATE-SEEKING STUDENTS WITH LIMITED ENGLISH PROFICIENCY

Students without sufficient proficiency in English to take the CPT are required to take the English Placement Test (EPT) and be placed in the designated English as a Second Language for Academic Purposes (EAP) course. This includes students with foreign degrees that were earned from an accredited institution where the official language of instruction is not English. A documented score of 550 on the paper and pencil Test of English as a Foreign Language (TOEFL) or a 213 on the computerized TOEFL exempts a student from EPT testing (Technical Manual 501003). CPT testing is required following EPT testing and/or completion of EAP courses. The following placement scores are currently in use:

<table>
<thead>
<tr>
<th>EPT Raw Score</th>
<th>Course Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 10</td>
<td>EAP – Level 1*</td>
</tr>
<tr>
<td>11 – 30</td>
<td>EAP – Level 1</td>
</tr>
<tr>
<td>31 – 44</td>
<td>EAP – Level 2</td>
</tr>
<tr>
<td>45 – 58</td>
<td>EAP – Level 3</td>
</tr>
<tr>
<td>59 – 72</td>
<td>EAP – Level 4</td>
</tr>
<tr>
<td>73 – 86</td>
<td>EAP – Level 5</td>
</tr>
<tr>
<td>87 – 95</td>
<td>EAP – Level 6</td>
</tr>
<tr>
<td>96 – 100</td>
<td>Exempt from EAP</td>
</tr>
</tbody>
</table>

*Students scoring at this level will be strongly advised to enroll in alternative English language programs. Campus department may adjust initial placement based on a writing sample and/or oral interview. Further testing may be done in classrooms.

III. PROCEDURES FOR TESTING AND PLACEMENT CRITERIA FOR VOCATIONAL CREDIT CERTIFICATE PROGRAMS

The State of Florida requires each institution offering Postsecondary Vocational Certificate Education to administer one of the following approved examinations to assess student mastery of basic skills: Adult Measure of Essential Skills (AMES), 1997; Computerized Placement Test (CPT); Tests of Adult Basic Education (TABE) Complete Battery or Survey Form, Forms 7 and 8, 1994; Tests of Adult Basic Education – Work Related (TABE-WR), 1994; or the Wonderlic Basic Skills Test (WBST), 1994.

Depending on the vocational Credit Certificate program, M-DCC administers the TABE Complete Battery or Survey, Level A, Forms 7 and 8 (Corrections, Fire, Law Enforcement, and Medical Programs currently use the Complete Battery). Completion of a prescribed remediation program is suggested prior to retesting with a minimum 30-day period after initial testing or between retests. An alternate form of the TABE is used for retests. Academic support labs are available to remediate students to retake the TABE.

Note: Level D may be used if the completion level of the program is at the 9th grade level or less.

Minimum basic skills grade levels in mathematics, language, and reading are defined in each vocational program description adopted under Rule 6A-6.0571, FAC, and published annually by the Commissioner in the document entitled, “Vocational Education Program Course Standards.” Program personnel should refer to this document for minimum required basic skills grade levels to earn a certificate by program.

Agencies sponsoring Vocational Credit Certificate seeking students may set higher requirements and exemptions for testing.

Students without sufficient proficiency in English are referred to Vocational English for Speakers of Other Languages (VESOL) programs. Refer to Section IV-C. M-DCC may accept official test scores from certified academic institutions and approved Training and Employment Council Agencies. Parameters for testing will be established between coordinating agencies.
REQUIRED TO TEST:

1. All first-time-in-program students who designate themselves as certificate-seeking in a vocational program of 450 hours or more, than 180 hours. Such students must complete an entry-level examination within the first six weeks of admission into the program.

2. All students whose TABE (or other approved examination) scores are more than two years old and have not been used for placement.

3. All students whose TABE (or other approved examination) scores are more than two years and who had a break in their enrollment of more than one year.

EXEMPTED FROM TESTING:

1. Students who have earned an Associate in Arts degree (e.g. Associate in Arts, Associate in Science, Associate in Applied Science, etc.) or higher from an regionally accredited United States or foreign institution where the official language of instruction is English are exempted from testing except in specific situations such as certain programs sponsored by external funding agencies. Official documentation is required.

2. Students who present passing SAT-I, ACT, or CPT scores which exempt them from college preparatory placement as outlined in Section I, Exemptions From Testing, Item #4 (Placement Criteria for Degree-Seeking Students) are exempt from testing for Vocational Credit Certificate programs. The student must have passing scores in all three subject areas.

3. Students who have completed the College-Level Academic Skills Test (CLAST) requirement pursuant to Section 240.107 are exempt from testing for Vocational Credit Certificate programs.

4. Students who present official scores on any of the state-approved exams (including the CPT) which demonstrate the skill level required by the specific program. The scores must have been obtained within the past two years.

5. Students who have earned a license from an approved National State, or Industry Agency are exempt from the exit testing requirement. The license has to be specific to the career and must be necessary in order to work. Official license and documentation is required. (Note: Initial testing is required).

IV. PROCEDURES FOR TESTING AND PLACEMENT CRITERIA FOR ADULT GENERAL EDUCATION PROGRAMS

The State of Florida requires each institution offering Adult General Education programs to administer one of the following approved examinations to place adult education students into the appropriate course(s) for their literacy level in the areas of mathematics, reading, and language: Adult Measure of Essential Skills (AMES), 1997; Tests of Adult Basic Education (TABE) Complete Battery or Survey, Forms 7 and 8, 1994; Test of Adult Basic Education – Work Related (TABE–WR), 1994; or the Wonderlic Basic Skills Test (WBST), 1994.

M-DCC administers the TABE Survey Forms 7 and 8 with Locator for this purpose. The TABE retesting guidelines in Section III are also followed for ABE and GED programs.

Students without sufficient proficiency in English are referred to Vocational English for Speakers of Other Languages (VESOL) programs. Refer to Section IV-C.

A. Placement Guide for Adult Basic Education (ABE):
The following placement scores are required for placement in the ABE programs:

<table>
<thead>
<tr>
<th>ABE Placement Guide</th>
<th>TABE Grade Equivalent</th>
<th>Required Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.0 – 4.9</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>5.0 – 5.9</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>6.0 – 8.9</td>
<td>EDU 094</td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.0 – 4.9</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>5.0 – 5.9</td>
<td>EDU 083</td>
<td></td>
</tr>
<tr>
<td>6.0 – 8.9</td>
<td>EDU 084</td>
<td></td>
</tr>
<tr>
<td>Math</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.0 – 4.9</td>
<td>EDU 073</td>
<td></td>
</tr>
<tr>
<td>5.0 – 5.9</td>
<td>EDU 073</td>
<td></td>
</tr>
<tr>
<td>6.0 – 8.9</td>
<td>EDU 074</td>
<td></td>
</tr>
</tbody>
</table>

Students whose TABE scores are below the minimum required levels are referred to other adult basic education programs or to other remediation programs offered by M-DCC. Information about these options will be provided to the student during the placement interview.

B. Placement Guide for General Education Development (GED) Preparatory Courses:

GED students should obtain a minimum 9.0 grade level equivalent on the TABE for each subject area in order to gain the most benefit from the GED preparatory courses. If a student scores a 9.0 grade equivalent or higher in reading and less than 9.0 in mathematics and/or language, the student can be enrolled in both GED and Adult Basic Education (ABE) programs of study.

Students are registered in EDU 075 – GED Preparatory – Comprehensive (LCP A-E) if they lack a State of Florida recognized high school diploma and meet one of the following criteria:

1. Have never taken the GED test.
2. Have taken the GED test, but have not passed any of the subtests.
3. Passed all of the subtests of the GED test without obtaining an overall passing score of 225225.

A student who has taken the GED test and failed at least one, but not all of the subtests, is enrolled in one or more of the following courses:

<table>
<thead>
<tr>
<th>GED Prep Courses Placement Guide</th>
<th>LCP</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 085 GED Preparatory – Language/Writing</td>
<td>LCP - A</td>
<td></td>
</tr>
<tr>
<td>EDU 078 GED Preparatory – Social Studies</td>
<td>LCP - B</td>
<td></td>
</tr>
<tr>
<td>EDU 079 GED Preparatory – Science</td>
<td>LCP - C</td>
<td></td>
</tr>
<tr>
<td>EDU 095 GED Preparatory – Literature/Reading</td>
<td>LCP - D</td>
<td></td>
</tr>
<tr>
<td>EDU 077 GED Preparatory – Mathematics</td>
<td>LCP - E</td>
<td></td>
</tr>
</tbody>
</table>

LCP = Literacy Completion Point
C. Placement Guide for Vocational English for Speakers of Other Languages (VESOL):

M-DCC administers the TABE Survey (Reading and Language only) Forms 7 and 8 with Locator to place students into the appropriate course for their literacy level. Students will be placed based on the average of their reading and language scores on the TABE test as follows:

<table>
<thead>
<tr>
<th>VESOL Placement Guide</th>
<th>TABE Grade Equivalent</th>
<th>Course Placement Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0 – 1.9</td>
<td>EDU 057 – ESOL Foundations</td>
<td></td>
</tr>
<tr>
<td>2.0 – 2.9</td>
<td>EDU 068 – VESOL A (Beginning)</td>
<td></td>
</tr>
<tr>
<td>3.0 – 5.9</td>
<td>EDU 069 – VESOL B (Intermediate)</td>
<td></td>
</tr>
<tr>
<td>6.0 – 8.9</td>
<td>EDU 070 – VESOL C (Advanced)</td>
<td></td>
</tr>
</tbody>
</table>

Eligible students who do not meet the placement criteria listed above for the VESOL program will be referred to other programs offered by the College (REVEST, non-credit intensive English, etc.) or to programs offered by Miami-Dade County Public Schools. Students transitioning from VESOL C to Vocational Credit Certificate programs are retested on the TABE following the testing guidelines in Section III in order to determine program eligibility and placement.

Research and Testing Committee
Effective July 1, 2003

ab
Proposal:

**Attributional Style and Academic Achievement in Mathematics, Science, and Engineering Courses Among Community College Students**

Date 2/11/03

Requestor/Institution: Gina Cortes-Suarez/Florida International University

Summary prepared by: Gina Cortes-Suarez

**APPLIES TO ANY MULTI-CAMPUS RESEARCH REQUEST**

1. Proposal received stating purpose & benefits of research - see attached

2. Prior approvals (from requesting institution/agency) are present - FIU Institutional Review Board approval is pending this approval

3. Investigator has made arrangements for collecting data:
   - Survey instruments - attributional style questionnaire (attached)
   - Interviews
   - Electronic data

4. Consent forms are present or will be used where necessary - see attached

5. Confidentiality of data is addressed - see attached informed consent letter

6. Estimated intrusiveness of study:
   - Classroom time - 30-40 minutes
   - M-DCC faculty/staff time - to retrieve student records
   - Computer time/resources retrieval of student records

7. Appropriateness of study to M-DCC:
   - Potential benefits - study attempts to identify a predictor of success in mathematics, science, and engineering courses.
   - Any negative aspects

8. Any issues not covered above:
Attributional Style and Academic Achievement in Mathematics, Science, and Engineering Courses Among Community College Students

Gina Cortes-Suarez
Florida International University

Research in the field of attribution theory and academic achievement suggests that a relationship exists between a student's achievement and his/her attributional style. Attributional style is a cognitive personality variable that reflects the manner in which individuals explain the causes for the successes and failures in their lives (Peterson & Seligman, 1984).

General Problem Area

The National Science Foundation (1996) has predicted a shortage of over 400,000 scientists and engineers by the year 2006. In this biennial report to the United States Congress, the National Science Foundation documented the need to increase participation in mathematics, science, and engineering at each step of the educational process. Identifying a factor which may predict academic achievement in mathematics, science, and engineering may position higher education institutions to design and implement programs which will address this national dilemma. Minority and women students, with an interest in careers in science and engineering will become even more important in any effort to overcome the projected shortfall.

Review of the Literature

Attribution theory has its roots in social psychology. In the early 1970's Weiner developed an attributional theory of achievement motivation that served as the foundation for subsequent research in the field. According to Weiner (1972), attributions for success
and failure fall into four categories based on two dimensions: internal/external, and
stable/unstable. A later model by Abramson, Seligman and Teasdale (1978) suggested
that a third dimension termed global/specific is crucial to the interpretation of
attributions. This study is based on the three-dimensional model.

Other statistical studies have used overall GPA, admission and placement test
scores, gender, and high school performance to predict academic achievement in college.
The results of a study conducted by Peterson and Barrett (1987) revealed that
attributional style was related to grades among college freshmen. Similarly, Pierce and
Henry (1993) administered the Attributional Style Questionnaire to students enrolled in a
college algebra course. Their findings indicate that students who explained negative
events with pessimistic attributions received lower grades in the course than students who
had more optimistic attributions for these same negative events. The literature on
attribution and achievement gives good reason to expect attributional style to predict
academic performance among students.

Purpose of the Study

The study is designed to explore the role attributional style plays for good and bad
events in academic performance in mathematics, science, and engineering courses and
the relationship to gender and ethnicity at a community college. Its intent will be to
analyze the data derived from the students' GPA's in the composite of the mathematics,
science, and engineering courses they have completed (achievement) and compare to
their attributional style as measured by the Attributional Style Questionnaire (ASQ).
Research Hypotheses

Based on the rationale established by the existing research as summarized above, it is hypothesized that there is a relationship between a student's attributional style and level of achievement in mathematics, science, and engineering courses, and that the students who demonstrate a high level of achievement in these courses also demonstrate an external/unstable/specific locus of causal explanation which determines an optimistic attributional style. It is also hypothesized that there is a difference in the attributional styles of males and females.

Method

The Attributional Style Questionnaire (ASQ) (Peterson, Semmel, von Baeyer, Abramson, Metalsky & Seligman, 1982), will be administered in a group setting, during class time to 200 community college students enrolled in non-introductory mathematics, science, and engineering courses. Demographic information requesting name, age, gender, ethnicity, U.S citizenship status, years in the U.S., declared major, career plans, and highest degree expected will be collected from each student. Student records will be retrieved to obtain final course grades from the transcript system.

Anticipated Analyses and Findings

The data collected from this study will consist of a composite score on the ASQ for each student, the GPA in the composite of each student's mathematics, science, and engineering courses, and the demographic self-reported information. The data will be analyzed for the purpose of establishing a relationship among the variables. A regression analysis will then be performed in order to determine whether a composite score on the ASQ is a good predictor of academic achievement in mathematics, science, and
engineering courses. A second regression analysis will be performed between academic achievement and attributional style for male and female. Other demographic data collected will be analyzed to establish further relationships.

Discussion/Implications

The results of this study will provide important baseline data which could be used by those educators who design and implement intervention programs that provide academic support to mathematics, science, and engineering students. Of further significance could be the use of the ASQ as a potential predictor of academic achievement and the role of gender and ethnicity in a community college setting. Although limited in its scope, this study could further encourage the use of attributional style re-training strategies in higher education settings.

Despite the extensive literature on achievement in the sciences, much remains to be learned about those factors which may be related to high achievement in science-related disciplines. Achievement in mathematics, science, and engineering becomes important in that these courses may very well be the gateway to career options in the scientific community. Little is still known about the factors which influence and predict achievement in mathematics, science, and engineering college courses. Most studies have focused on traditional factors which may predict achievement in college work in general, such as high school performance and admissions test scores. Colleges, however, find themselves in a challenging position when it comes to improving and increasing achievement and retention in the sciences and related disciplines. A failure to increase the number of talented students choosing science-related careers could prove to be a serious problem for the scientific community and the nation.
References


Attributional Style and Academic Achievement in Mathematics, Science, and Engineering Courses Among Community College Students

You are being asked to participate in a research study. You will be completing this questionnaire which is designed to measure your attributional style. Attributional style is the way you explain good and bad events in your life. There are no risks to you as a participant of this study. There are no direct benefits to you as an individual. However, the study may identify new ways to predict academic achievement.

The researcher will maintain the highest level of confidentiality. The information gathered for this study will only be used for the purposes of this study. The research results will be presented in a group format. Individuals will not be identified. Participation in this study will have no effect on your grades.

Completing the questionnaire will take approximately 30 minutes. I will collect the cover sheet and questionnaire as soon as you are finished.

Please feel free to contact me at (305) 237-8399, Miami-Dade Community College, North Campus Room 1312; or Dr. Janice Sandiford at (305) 348-3996, Florida International University, College of Education, University Park, Room ZEB-366. If you have any questions regarding being a human subject you may contact Dr. Bernard Gerstman, the Chairperson of Florida International University’s Institutional Review Board at (305) 348-3115 or (305) 348-2964.

Sincerely,

Gina Cortes-Suarez
Principal Investigator
INITIAL REVIEW FOR USE OF HUMAN SUBJECTS
Application Enclosure Checklist for Form A

The following **MUST BE INCLUDED** in the submission for initial review

- Form A – IRB Application With Appropriate Signatures
- **IRB Research Proposal** – please use the outline provided in the IRB Manual Section II.B. Do not attach your grant proposal as fulfillment of the IRB proposal requirement.
- **Human Subjects Training Certificates** – all Key Personnel must provide certificates of completion.
- **Consent/Assent Form** – Consent documents **MUST** be in final format (University Letterhead) to receive final approval and date stamp. Required, unless waived, for all research involving children as subjects and for Expedited and Full Board Review.

Include the following only **if applicable**:

- **Cover/Information Letter** – suggested for use with exempt research. This document must include contact information for the IRB Chairperson on behalf of the university.
- **Research Instruments** (Surveys, Questionnaires)
- **Recruitment Information** (Ads, Web Postings, Letters etc.)
- One copy of **Full Grant Proposal** if funding is being requested, Dissertation or Masters Thesis.
- **Data and Safety Monitoring plan**
- **Current IRB Approval Letters** from other sites with IRBs participating in this project
- **Verification Letters** from other sites without IRBs that research can be conducted
- **Conflict of Interest Disclosure**

***NOTE – Research that meets the criteria for Exempt approval is not required to submit consent documents neither is a request for waiver of consent documents required. Waiver of consent is only applicable for research that will be Exempted or approved through Full Board Review. ***

Submit your complete IRB Application Packet to an IRB Representative who will forward your proposal for the use of Human Subjects to the IRB Coordinator and you will be sent written notification of action taken by the IRB.
DEMOGRAPHIC INFORMATION

NAME __________________________________________________________

STUDENT NUMBER _________________________

AGE _______ GENDER M F (circle one)

RACE/ETHNICITY: Check one

- White Non-Hispanic
- Black: Country of origin ______________
- Hispanic: Country of origin ______________
- Native American Indian
- Asian
- Other ________________

U.S. Citizen _____ yes ___ no

Number of years in the United States: ___________

Intended major: ____________________________________________________

Career plans: ____________________________________________________

Highest degree expected:

- Associate in Arts
- Associate in Science
- Bachelors
- Masters
- Doctorate
ATTRIBUTIONAL STYLE QUESTIONNAIRE

Directions:
1. Read each situation and vividly imagine it happening to you.
2. Decide what you believe to be the one major cause of the situation if it happened to you.
3. Write this cause in the blank provided.
4. Answer the six questions about the cause by circling one number per question. Do not circle the words.
5. Go on to the next situation.

SITUATIONS

YOU MEET A FRIEND WHO COMPLIMENTS YOU ON YOUR APPEARANCE

1. Write down the one major cause: ________________________________

2. Is the cause of your friend’s compliment due to something about you or something about other people or circumstances?
   
   Totally due to other 1 2 3 4 5 6 7  
   People or circumstances  
   Totally due to me

3. In the future, when you are with a friend, will this cause again be present?
   
   Will never again 1 2 3 4 5 6 7  
   Will always be present be present

4. Is the cause something that just affects interacting with friends, or does it also influence other areas of your life?
   
   Influences just this 1 2 3 4 5 6 7  
   particular situation  
   Influences all situations in my life  

Copyright 1984 by Dr. Martin E. P. Seligman. All rights reserved. Dr. Martin E. P. Seligman acknowledges the significant contribution of Dr. Mary Anne Layden to the authorship of this questionnaire.
YOU HAVE BEEN LOOKING FOR A JOB UNSUCCESSFULLY FOR SOME TIME.

5. Write down the one major cause:


6. Is the cause of your unsuccessful job search due to something about you or something about other people or circumstances?

   Totally due to other people or circumstances 1 2 3 4 5 6 7   Totally due to me

7. In the future, when looking for a job, will this cause again be present?

   Will never again be present 1 2 3 4 5 6 7   Will always be present

8. Is the cause something that just influences looking for a job, or does it also influence other areas of your life?

   Influences just this particular situation 1 2 3 4 5 6 7   Influences all situations in my life

YOU BECOME VERY RICH.

9. Write down the one major cause:

10. Is the cause of your becoming rich due to something about you or something about other people or circumstances?

    Totally due to other people or circumstances 1 2 3 4 5 6 7   Totally due to me

11. In the future, will this cause again be present?

    Will never again be present 1 2 3 4 5 6 7   Will always be present

12. Is the cause something that just affects obtaining money, or does it also influence other areas of your life?

    Influences just this particular situation 1 2 3 4 5 6 7   Influences all situations in my life
A FRIEND COMES TO YOU WITH A PROBLEM AND YOU DON’T TRY TO HELP HIM/HER.

13. Write down the one major cause: ______________________________________

14. Is the cause of your not helping your friend due to something about you or something about other people or circumstances?

<table>
<thead>
<tr>
<th>Totally due to other people or circumstances</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totally due to me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. In the future, when a friend comes to you with a problem, will this cause again be present?

<table>
<thead>
<tr>
<th>Will never again be present</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will always be present</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. Is the cause something that just affects what happens when a friend comes to you with a problem, or does it also influence other areas of your life?

<table>
<thead>
<tr>
<th>Influences just this particular situation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influences all situations in my life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

YOU GIVE AN IMPORTANT TALK IN FRONT OF A GROUP AND THE AUDIENCE REACTS NEGATIVELY.

17. Write down the one major cause: ________________________________

18. Is the cause of the audience’s negative reaction due to something about you or something about other people or circumstances?

<table>
<thead>
<tr>
<th>Totally due to other people or circumstances</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totally due to me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

19. In the future when you give talks, will this cause be present?

<table>
<thead>
<tr>
<th>Will never again be present</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will always be present</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

20. Is the cause something that just influences giving talks, or does it also influence other areas of your life?

<table>
<thead>
<tr>
<th>Influences just this particular situation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influences all situations in my life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
YOU DO A PROJECT WHICH IS HIGHLY PRAISED.

21. Write down the one major cause: ____________________________________________

22. Is the cause of your being praised due to something about you or something about other people or circumstances?

<table>
<thead>
<tr>
<th>Totally due to other people or circumstances</th>
<th>1 2 3 4 5 6 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totally due to me</td>
<td></td>
</tr>
</tbody>
</table>

23. In the future when you do a project, will this cause again be present?

| Will never again be present | 1 2 3 4 5 6 7 |
| Will always be present      |                |

24. Is the cause something that just affects doing projects, or does it also influence other areas of your life?

| Influences just this particular situation | 1 2 3 4 5 6 7 |
| Influences all situations in my life     |                |

YOU MEET A FRIEND WHO ACTS HOSTILE TOWARDS YOU.

25. Write down the one major cause: ____________________________________________

26. Is the cause of your friend acting hostile due to something about you or something about other people or circumstances?

| Totally due to other people or circumstances | 1 2 3 4 5 6 7 8 |
| Totally due to me                           |                |

27. In the future when interacting with friends, will this cause again be present?

| Will never again be present | 1 2 3 4 5 6 7 |
| Will always be present      |                |

28. Is the cause something that just influences interacting with friends, or does it also influence other areas of your life?

| Influences just this particular situation | 1 2 3 4 5 6 7 |
| Influences all situations in my life     |                |
YOU CAN'T GET ALL THE WORK DONE THAT OTHERS EXPECT OF YOU.

29. Write down the one major cause: _____________________________________

30. Is the cause of your not getting the work done due to something about you or something about other people or circumstances?

Totally due to other people or circumstances

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Totally due to me

31. In the future when doing work that others expect, will this cause again be present?

Will never again be present

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Will always be present

32. Is the cause something that just affects doing work that others expect of you, or does it also influence other areas of your life?

Influences just this particular situation

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Influences all situations in my life

YOUR SPOUSE (BOYFRIEND/GIRLFRIEND) HAS BEEN TREATING YOU MORE LOVINGLY.

33. Write down the one major cause: _____________________________________

34. Is the cause of your spouse (boyfriend/girlfriend) treating you more lovingly due to something about you or something about other people or circumstances?

Totally due to other people or circumstances

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Totally due to me

35. In future interactions with your spouse (boyfriend/girlfriend), will this cause again be present?

Will never again be present

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Will always be present

36. Is the cause something that just affects how your spouse (boyfriend/girlfriend) treats you, or does it also influence other areas of your life?

Influences just this particular situation

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Influences all situations in my life
YOU APPLY FOR A POSITION THAT YOU WANT VERY BADLY (E.G., IMPORTANT JOB, GRADUATE SCHOOL ADMISSION, ETC.) AND YOU GET IT.

37. Write down the one major cause: ______________________________________

38. Is the cause of your getting the position due to something about you or something about other people or circumstances?

| Totally due to other | 1 2 3 4 5 6 7 | Totally due to me people or circumstances |

39. In the future when you apply for a position, will this cause again be present?

| Will never again be present | 1 2 3 4 5 6 7 | Will always be present |

40. Is the cause something that just influences applying for a position, or does it also influence other areas of your life?

| Influences just this particular situation | 1 2 3 4 5 6 7 | Influences all situations in my life |

YOU GO ON A DATE AND IT GOES BADLY.

41. Write down the one major cause: ______________________________________

42. Is the cause of the date going badly due to something about you or something about other people or circumstances?

| Totally due to other | 1 2 3 4 5 6 7 | Totally due to me people or circumstances |

43. In the future when you are dating, will this cause again be present?

| Will never again be present | 1 2 3 4 5 6 7 | Will always be present |

44. Is the cause something that just influences dating, or does it also influence other areas of your life?

| Influences just this particular situation | 1 2 3 4 5 6 7 | Influences all situations in my life |
YOU GET A RAISE.

45. Write down the one major cause: _____________________________________________

46. Is the cause of your getting a raise due to something about you or something about other people or circumstances?

Totally due to other people or circumstances 1 2 3 4 5 6 7

Totally due to me

47. In the future on your job, will this cause again be present?

Will never again be present 1 2 3 4 5 6 7

Will always be present

48. Is the cause something that just affect getting a raise, or does it also influence other areas of your life?

Influences just this particular situation 1 2 3 4 5 6 7

Influences all situations in my life