

Program Level Assessment: Using Rubrics to Assess General Education Outcomes

MID-SOUTH
COMMUNITY
COLLEGE

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Background

- Established Course-level Assessment
- All courses incorporate writing, research and oral presentation
- Upcoming HLC visit – Fall 2003
 - Annual HLC conference stated that colleges needed to assess at the program level and the course level.

Writing Across the Curriculum

Departments

- Select courses to be assessed
- Pick an assignment that involved writing
- Create a rubric that assessed this writing assignment
- Analyze and discuss this data in annual assessment report

Assessment Committee

- Collected rubrics
- Noticed similar components
- Created one rubric to be used for all subjects



General Education Outcomes

- Revision began Spring 2001
- Update – add technology
- Simplify language
- Use rubrics to specify components (details)

MSCC's General Education Outcomes
2/6/2003

Current MSCC GEOs	GEO Revision* (by 2001 Curriculum Committee and 2002 Assessment Committee)
1. Communicate effectively through written and oral communication, including the ability to formulate, develop, and present an idea in standard, edited American English.	<u>Re-worded</u> 1. Communicate effectively in standard, edited American English.
2. Use computational mathematics, algebraic operations, and their practical applications to perform computations and solve problems common to the workplace.	<u>Re-worded</u> 2. Solve problems using mathematical skills appropriate to the tasks.
3. Acquire a knowledge of the historical, social, and cultural behavior of mankind, a basic understanding of scientific concepts and principles, and an appreciation of mankind's creative accomplishments.	<u>Combined into one GEO</u> 3. Acquire a fundamental knowledge of the social, political, scientific, and cultural behavior of mankind and interpret events using multiple perspectives.
4. Apply the concepts and methods of inquiry in the humanities, social sciences, and/or technology.	
5. Develop habits, ethics, and interpersonal skills to work effectively and fairly with individuals and teams of people with personal and cultural differences.	<u>Re-worded</u> 4. Develop habits, ethics, and interpersonal skills to work effectively and fairly with individuals and teams of people with personal and cultural differences.
6. Set goals, meet schedules, evaluate options, establish priorities, and make reasoned decisions.	<u>Re-worded</u> 5. Behave professionally by setting goals and priorities, upholding responsibilities, and making reasoned decisions.
7. Utilize reference materials, catalog systems, indexes, and computer technology to identify, locate, and process information.	<u>Re-worded</u> 6. Effectively use library and electronic resources to identify, locate, and access information.
8. Collect, organize, analyze, synthesize, and evaluate resource information in support of critical thinking and problem solving.	<u>Re-worded</u> 7. Apply critical thinking skills to solve problems, make informed decisions, and interpret events.
	<u>New GEO</u> 8. Use common computer applications to communicate, process, and store information.

* Rubrics will be used to further identify necessary skills and knowledge associated with each GEO for assessment purposes.

General Education Outcomes

1. Communicate effectively in standard, edited American English.
2. Solve problems using mathematical skills appropriate to the tasks.
3. Acquire a fundamental knowledge of the social, political, scientific, and cultural behavior of mankind and interpret events using multiple perspectives.
4. Develop habits, ethics, and interpersonal skills to work effectively and fairly with individuals and teams of people with personal and cultural differences.
5. Behave professionally by setting goals and priorities, upholding responsibilities, and making reasoned decisions.
6. Effectively use library and electronic resources to identify, locate, and access information.
7. Apply critical thinking skills to solve problems, make informed decisions, and interpret events.
8. Use common computer applications to communicate, process, and store information.

Creating the other Rubrics

Assessment Committee

- Researched online for samples dealing with each GEO topic
- Each sample was compared in a matrix
- Components were selected (3-5)
 - Identify specific GEO skills and knowledge
 - Generic all subjects
- Distinguishable points

GEO #6 - Effectively use library and electronic resources to identify, locate, and access information.

Sample Number _____

Rubric Component	Point Scale				Student's Score
	4	3	2	1	
Provides a clearly defined, focused research question or goal.	Research thesis or goal is original, clearly defined, focused, and reflects appropriate content knowledge.	Research thesis or goal is clear and reflects appropriate content knowledge, but may be unoriginal or too broad/narrow.	Research thesis or goal is stated but is not clear or focused and does not reflect appropriate content knowledge.	Research thesis or goal does not meet the criteria or is absent.	
Identifies the appropriate number and type of sources.	The correct number of sources is presented and all sources have the correct audience (scholarly vs. popular) and reflect appropriate variety (Internet, books, journals).	Most of the criteria outlined for sources are met.	Few of the criteria outlined for sources are met.	None of the criteria outlined for sources are met.	
Provides a clear and thorough summary of the information gathered from sources.	Information from sources is thoroughly summarized and evaluated.	Information from sources is clearly summarized with adequate evaluation of source material.	Information from sources is provided, but is not paraphrased appropriately or is not adequately clear or thorough.	Information from sources is not summarized.	
Analyzes information from sources to synthesize, draw conclusions, and apply concepts.	Information from sources is used to draw and support unique conclusions and to applications.	Information from sources is used to draw and support clear conclusions, but information is not adequately applied.	Information from sources is used to draw a conclusion, but it is not supported by information and is not applied.	Information from sources is not used to draw a conclusion related to the research thesis or goal.	
Documents sources and uses information in an ethical and legal manner.	All information obtained from sources is correctly paraphrased, cited, and documented.	All information obtained from sources is correctly paraphrased and cited, but one or two documentation errors are present.	All information obtained from sources is correctly paraphrased and cited, but several documentation errors are present.	Information is not correctly paraphrased, cited, or documented.	

MSCC Programs

- Associate of Arts
- Associate of Applied Science
 - Business Technology
 - Information Systems
 - CIW
 - CISCO
- Technical Certificate
 - Early Childhood Development
 - Industrial Technology
 - Electronics and Electricity
- Certificate of Proficiency
 - Microcomputer Upgrade and Repair
 - Web-site Design

GEO Assessment Cycle

- Communication Skills and Contextual Knowledge (GEO 1 & 3)
 - Fall semester (even numbered years)
- Math and Critical Thinking Assessment (GEO 2 & 7)
 - Spring semester (odd numbered years)
- Research and Technology Skills Assessment (GEO 6 & 8)
 - Fall semester (odd numbered years)
- Interpersonal Skills and Professionalism (GEO 4 & 5)
 - Spring semester (even numbered years)

Two Objectives

1. Mean scores will improve by at least 0.25 points on a 4-point scale when comparing pre/post-tests
2. Mean scores for post-test will be 3.0 or above on a 4-point scale.

Associate of Arts

College Mission: MSCC is committed to the provision of high quality, affordable, and convenient learning opportunities consistent with identified student learning and community needs. To meet these needs the College provides quality academic and support programs, personnel, technology, administrative services, and facilities necessary to respond in a timely manner.

Program Objective(s): To provide community college general education and technical curricula which prepare students for further education, employment, and student learning.

Learning Outcome	Assessment Tool	Student Sample	Time Frame	Expected Performance	Analyzed by whom	Feedback Loop
Graduates will obtain a mastery level of general education knowledge and skills.	CAAP Exam	Students with 45 or more credit hours in AA program	Semi-annual	At least 50% of students will score at or above the national average on each area.	Assessment Chair	If less than 35% score at or above the national average in an area, faculty in the respective area will develop an improvement plan for the deficient area.
	Communication Skills and Contextual Knowledge (GEO 1 & 3)	Pre: entering AA students in CS 1101 Post: AA students w/ min. 30 credit hrs. in select courses	Fall semester (even numbered years) GEO 1 – beginning Fall 2002 GEO 3 – beginning Fall 2004	Mean scores will improve by at least .25 points on a 4-point scale when comparing pre-/post-scores.	Faculty / Assessment Chair	If mean scores do not improve from pre-test to post-test, AA faculty will develop an improvement plan for the deficient area.
				Mean scores for post-test will be 3.0 or above on a 4-point rubric.	Faculty	If mean scores are less than 2.0 on a 4-point scale, AA faculty will develop a plan to improve student performance in the deficient area.
	Math and Critical Thinking Assessment (GEO 2 & 7)	Pre: entering AA students in CS 1101 Post: AA students with 30 credit hour min. in select courses	Spring semester (odd numbered years)	Mean scores will improve by at least .25 points on a 4-point scale when comparing pre-/post-scores.	Faculty / Assessment Chair	If mean scores do not improve from pre-test to post-test, AA faculty will develop an improvement plan for the deficient area.
				Mean scores for post-test will be 3.0 or above on a 4-point rubric.	Faculty	If mean scores are less than 2.0 on a 4-point scale, AA faculty will develop a plan to improve student performance in the deficient area.
	Research and Technology Skills Assessment (GEO 6 & 8)	Pre: entering AA students in CS 1101 Post: AA students with 30 credit hour min. in select courses	Fall semester (odd numbered years)	Mean scores will improve by at least .25 points on a 4-point scale when comparing pre-/post-scores.	Faculty / Assessment Chair	If mean scores do not improve from pre-test to post-test, AA faculty will develop an improvement plan for the deficient area.
				Mean scores for post-test will be 3.0 or above on a 4-point rubric.	Faculty	If mean scores are less than 2.0 on a 4-point scale, AA faculty will develop a plan to improve student performance in the deficient area.
Interpersonal Skills and Professionalism (GEO 4 & 5)	Pre: entering AA students in CS 1101 Post: AA students with 30 credit hour min. in select courses	Spring semester (even numbered years)	Mean scores will improve by at least .25 points on a 4-point scale when comparing pre-/post-scores.	Faculty / Assessment Chair	If mean scores do not improve from pre-test to post-test, AA faculty will develop an improvement plan for the deficient area.	
			Mean scores for post-test will be 3.0 or above on a 4-point rubric.	Faculty	If mean scores are less than 2.0 on a 4-point scale, AA faculty will develop a plan to improve student performance in the deficient area.	
Graduate survey	All AA graduates	Annual	At least 80% of respondents will indicate on each question that they agree that MSCC enhanced their General Education skills.	Registrar's Office	If less than 70% of respondents indicate that they agree that MSCC enhanced each of their Gen. Ed. skills, faculty will develop an improvement plan to improve performance in the deficient area.	
Graduates will possess the knowledge and skills to successfully transfer to another institution of higher education.	Graduate survey	All AA graduates	Annual	At least 80% of respondents will indicate satisfaction with their level of preparation.	Registrar's Office	If less than 70% indicate dissatisfaction with their level of preparation, the Assessment Committee will develop a plan to address that issue.
	Alumni Survey	All AA graduates	Biannual (beginning spring 2002)	At least 80% of respondents will indicate for each question that they are satisfied with their level of preparation.	Assessment Chair and Program Coordinator	If less than 70% indicate satisfaction with any relevant area, the respective faculty will develop an improvement plan to address that area.
	Course completion data from transfer universities	All AA graduates	Biannual (beginning spring 2004)	At least 75% of MSCC transfer students at participating institutions will maintain a 2.00 GPA after 1 semester.	Registrar's Office	If less than 50% of MSCC transfer students maintain a minimum 2.00 GPA, the Assessment Chair will create a plan to improve success rates of MSCC transfer students.
The mean GPA of MSCC transfer students will be comparable to mean GPA of native students after 1 semester.				Registrar's Office	If mean GPA of MSCC transfer students is .5 points lower (on a 4.0 GPA scale) than the mean GPA of native students, the Assessment Chair will create an improvement plan.	

Assessment Method

Pre-test

- **Course**

CS 1101 - College Survival (required for each degree)

- **Students**

1st time entering degree seeking students

Post-test

- **Courses**

Selected advanced courses in each degree program

- **Students**

Degree seeking students with 30+ credit hours

- **Embedded Assessment**

Collection of Artifacts

- **Courses**
 - Selected at the beginning of semester
 - Meeting held to discuss GEO and rubric
- **Artifacts**
 - Instructors submit assignment prompts and papers before being graded
 - Papers are copied then returned
 - Papers that don't meet the criteria are destroyed
 - Distinguishing marks (course, instructor, student) are removed

Holistic Scoring Sessions

- Faculty led session
- Raters are full-time faculty
- Raters trained on holistic scoring and GEO rubric
- Samples assessed as a group
 - Strengths and weaknesses discussed
- Raters are partnered
- Packets of artifacts given to each pair
 - Raters used GEO rubric to score each artifact
 - If scores differed by more than one point a third rater was used

Data Analysis

Mean scores

- Pre-test
 - Individually
 - Overall
- Post-test
 - Individually
 - Overall
- Each rubric component

Related factors

- Age
- Gender
- Overall GPA
- Ethnicity

2002-2003 Pilot Year

- AA Program Only
- Three GEOs assessed
 - Communications GEO 1
 - Writing and Oral presentation
 - Math GEO 2
 - Critical Thinking GEO 7

Writing Skills Results

GEO 1 – Writing Skills

One objective was met

– Pre/post-test Gain 0.44 points

Pre-test

- 4 point rubric
- N = 30
- Average = 2.23

Post-test

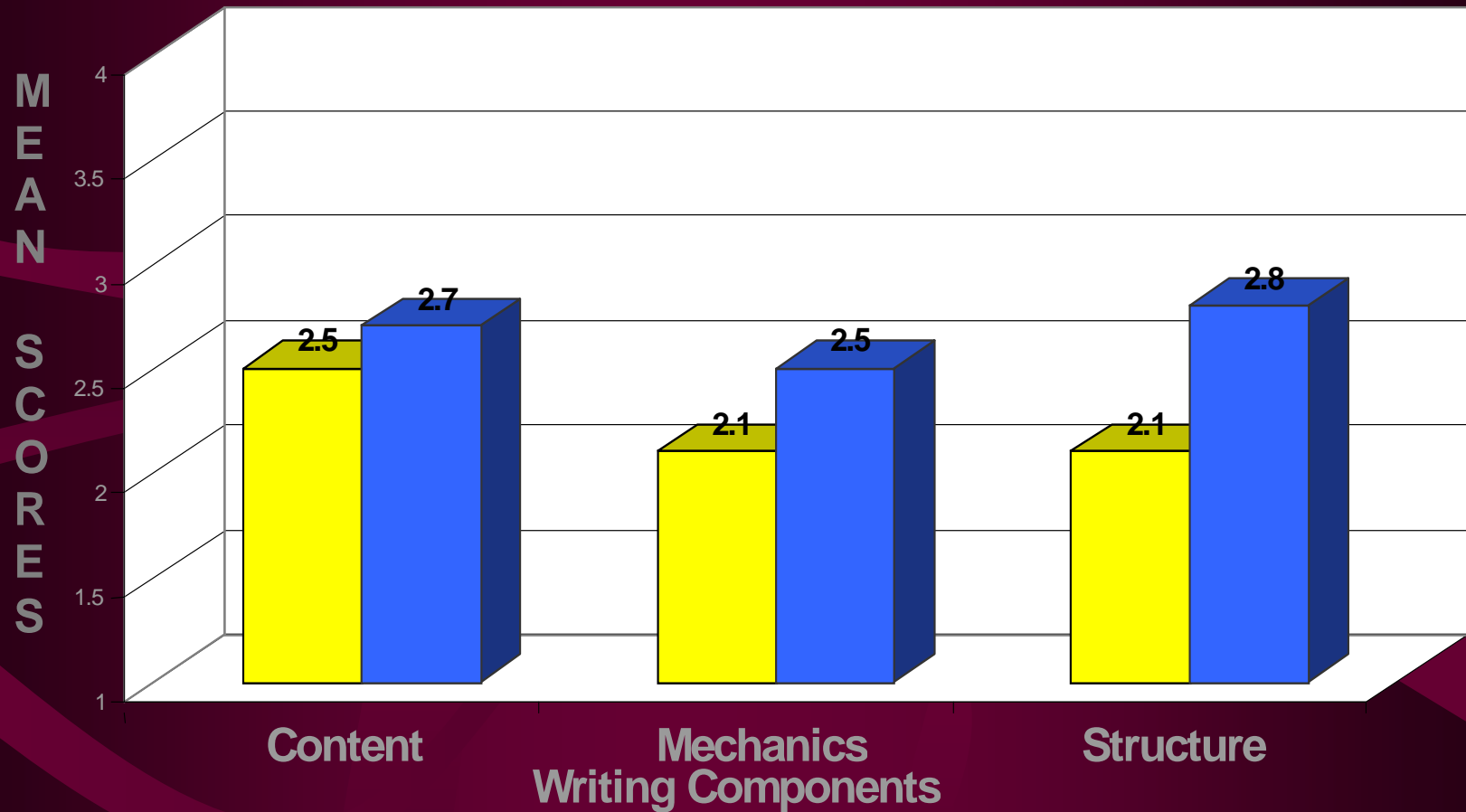
- 4 point rubric
- N = 23
- Average = 2.67

Observations

- Showed the most gain from all GEOs assessed
- Older students (2.80) scored higher than younger students (2.43)
- Female students scored similarly on all components where male students scored low on mechanics and high on organization.

Writing Skills

General Education - Writing



■ GEO 1-Writing Pre-Test ■ GEO 1-Writing Post-Test

Oral Communication Results

GEO 1 – Oral Communication

Pre-test

- 5-point rubric (mathematically converted to 4-pt)
- N = 57
- Average = 3.51

Post-test

- 5-point rubric (mathematically converted to 4-pt)
- N = 24
- Average = 3.57

One objective was met

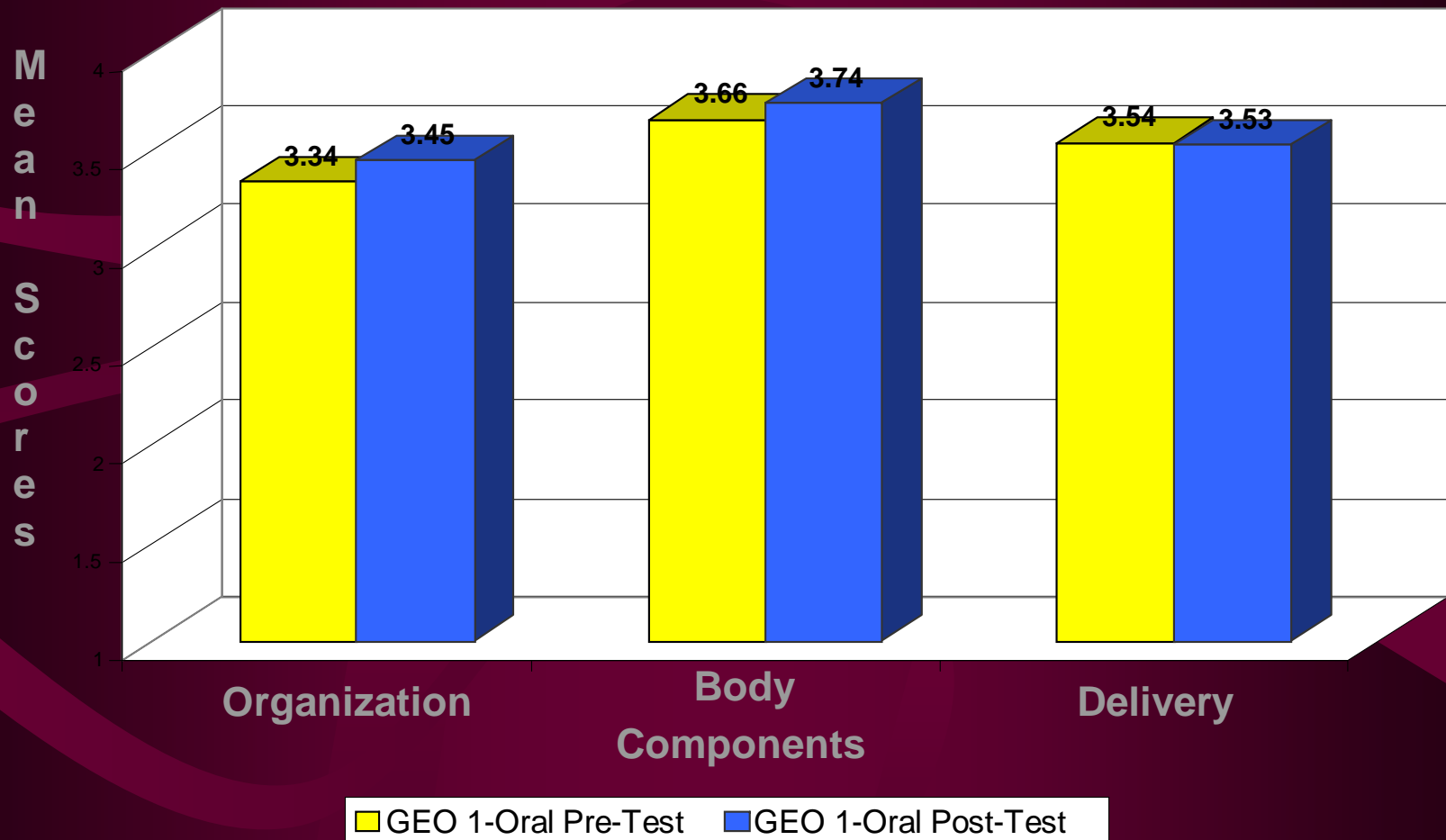
- Post-test mean score 3.57 points

Observations

- Not holistically scored
- Very little change from pre- to post-test scores
- No improvement on Delivery
- Group had the highest mean GPA

Oral Communication Skills

General Education - Oral Presentation Assessment



Math Skills Results

GEO 2 – Math Skills

Pre-test

- 4-point rubric
- N = 16
- Average = 2.57

Post-test

- 4-point rubric
- N = 39
- Average = 2.90

One objective was met

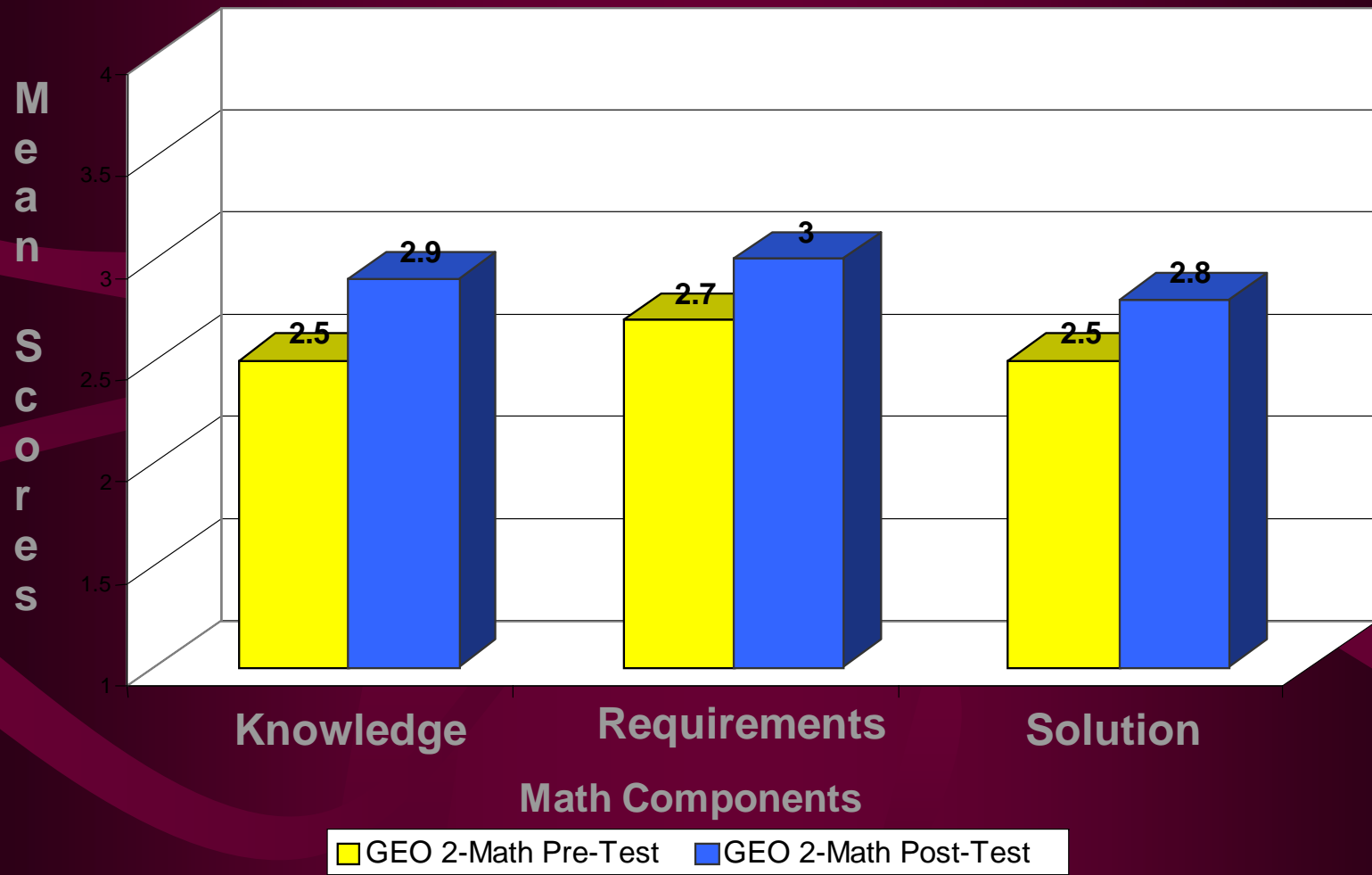
- Pre/post-test Gain 0.33 points
- Problem Requirements post-test averaged 3 pts

Observations

- Each component showed improvement from pre to post
- Females (3.03) scored slightly higher than males (2.70)

Math Skills

General Education - Math Assessment



Critical Thinking Skills Results

GEO 7 – Critical Thinking Skills

One objective was met

- Pre/post-test Gain 0.25 points

Pre-test

- 4-point rubric
- N = 14
- Average = 1.65

Post-test

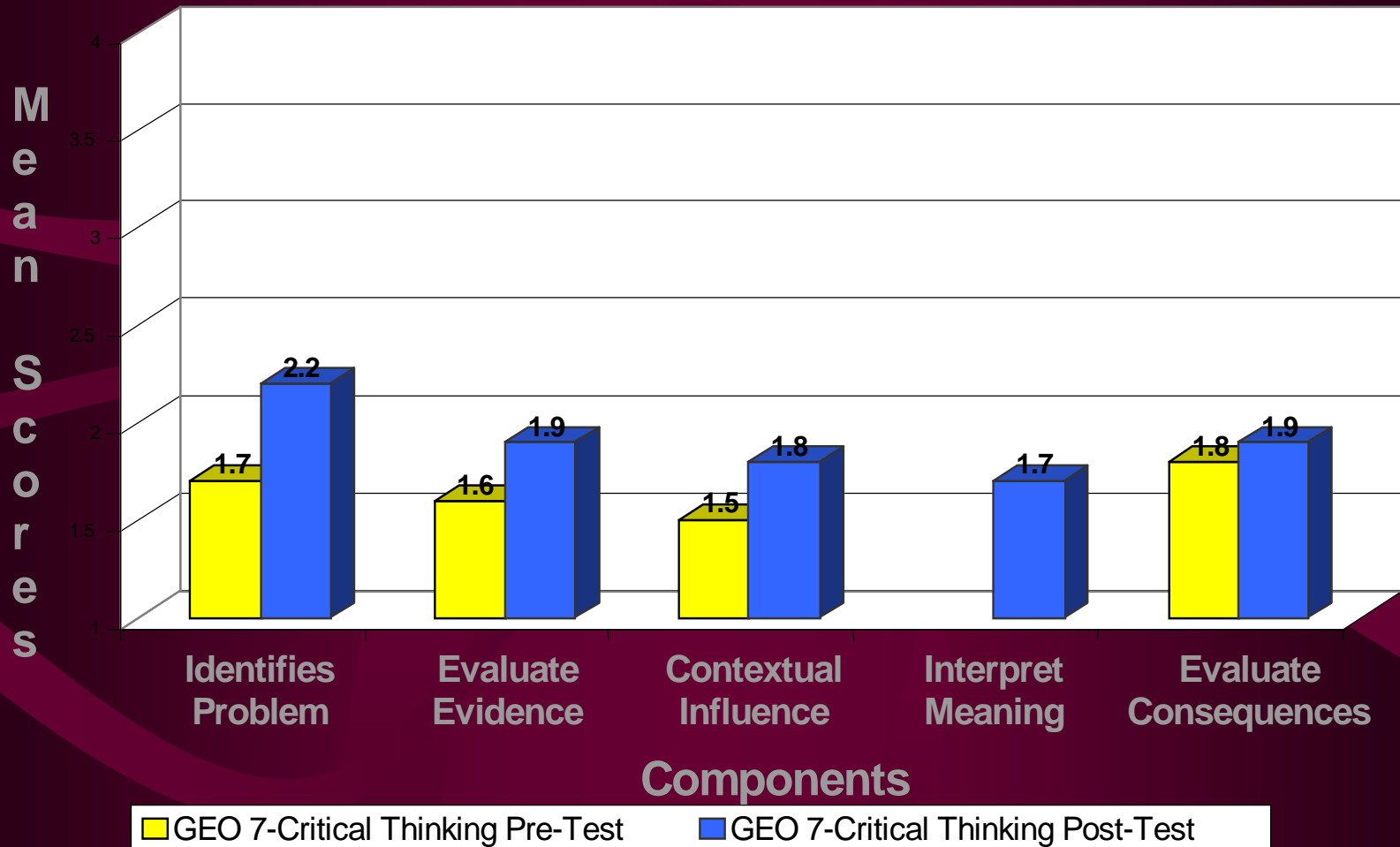
- 4-point rubric
- N = 29
- Average = 1.90

Observations

- Lowest scoring GEO assessed
- Identify problem had the highest gain
- Group had the lowest mean GPA
- Students with 2.99 GPA or under (2.02) received higher mean critical thinking scores than students with higher GPAs (1.74)

Critical Thinking Skills

General Education - Critical Thinking Assessment



Feedback Loop

Faculty

- Although scores improved by at least 0.25 points from pre- to post-test in most areas many of the components were below 3 points
- More workshops are needed on Critical Thinking

Assessment Committee

- Re-examine and revise GEO Rubrics
- Improve instructor training on GEO assessment
- Implement a different method for evaluating Oral communications

Fall 2003

Research Skills – GEO 6

Pre-test

- 1st time entering students in AA, AAS, or TC programs
- College survival research assignment

Post-test

- AA, AAS, or TC students with 30+ credit hours who have had Composition II
- Research papers in World Literature, History, Biology, Psychology, Sociology, Philosophy, Business

Technology Skills – GEO 8

Pre-test

- 1st time entering students in AA, AAS, or TC programs
- Student Self-Assessment Survey CS 1101

Post-test

- AA, AAS, or TC students with 30+ credit hours
- Student Self-Assessment Survey in CIW, CISCO, IT, EE, English, Business

Spring 2004

- Professionalism Skills
GEO 4

- Pre-test

- 1st time entering students in AA, AAS, or TC programs

- Post-test *

- AA, AAS, or TC students with 30+ credit hours

- Interpersonal Skills
GEO 5

- Pre-test

- 1st time entering students in AA, AAS, or TC programs

- Post-test *

- AA, AAS, or TC students with 30+ credit hours

*Specific Areas will be decided by the Assessment Committee this Fall.

MSCC Assessment Tools (Indirect Tools are italicized)

Level of Assessment	Timing of Assessment			
	Entry	Within	Completion	Follow-Up
Institutional	<ul style="list-style-type: none"> • ACT/ASSET/COMPASS Placement Testing • Student Intent and Profile Data • GEO Assessment in CS 1101 	<ul style="list-style-type: none"> • Faces of the Future Survey • Noel-Levitz Student Satisfaction Survey • Mid-term grade and grade distribution analysis • Student Intent and Profile Data (updated at registration) • Student retention data • Special topical surveys • GEO Assessment upon completion of 30+ credit hours 	<ul style="list-style-type: none"> • Graduate survey • Graduation data 	<ul style="list-style-type: none"> • Alumni survey • Transfer information • Job Placement information
Program	<ul style="list-style-type: none"> • Pre-Assessment of GEOs within CS 1101 • Pre-Assessment of Program Specific Skills within select courses 	<ul style="list-style-type: none"> • CIW Foundations Certifications Exam • MOUS Testing • Post-Assessment of GEOs within select advanced courses 	<ul style="list-style-type: none"> • CAAP Exam (AA Program) • MOUS Testing (IS) • CCNA (CISCO) • CIW Site Design Certification Exam • Work-Based Learning (Presentations, Papers, and Employer Evaluations) • Post-Assessment of Program Specific Skills within select courses • Graduate survey 	<ul style="list-style-type: none"> • Alumni survey • Employer survey • Transcript analysis of developmental students • Performance at transfer institutions
Course	<ul style="list-style-type: none"> • Instructor designed pre-tests • COMPASS Diagnostic Testing 	<ul style="list-style-type: none"> • Instructor designed formative assessment tools • Student evaluations of courses 	<ul style="list-style-type: none"> • Instructor designed post-tests • Portfolios • COMPASS Placement Testing • Writing assignments 	<ul style="list-style-type: none"> • Transcript analysis in follow-up courses

Visit our website
<http://assessment.midsouthcc.edu>
for additional information

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