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Measuring Student Learning Outcomes in the General Education Core:

Phase II Report and Recommendations

Prepared by the

GEO Forum

November 20, 2003

Dedicated to the memory of

Veronica Chavez,

who distinguished herself in service to

Collin County Community College District

through her contributions to the GEO Forum

and whose contributions reflected her sense of

the importance of the GEO Forum's work to ensuring

the highest quality education for our students.

GEO Forum Members

Veronica Chavez, M.P.A.
Chip Galloway, M.S.
Jean Helgeson, M.A.
Joan Jenkins, Ph.D.
Joan Kennedy, Ph.D.
Ralph Long, M.S.
Sherry Schumann, M.Ed.
Betty Siber, M.A.
Bill Slater, M.S.
Debra St. John, Ph.D.

Pam Gaiter, M.A. (Co-Chair)
Thomas K. Martin, Ph.D. (Co-Chair)

Deans with Core Curriculum Oversight Responsibility

Bill Blitt, M.S.
Tom Chesney, Ph.D.
Gaye Cooksey, B.F.A.
Gary Hodge, M.A.
Cameron Neal, Ph.D.

Recommended Purpose Statement
for CCCCD General Education Core Curriculum

The role of general education at Collin County Community College District is to cultivate within students

1. a common core of knowledge in the liberal arts tradition,
2. high-level cognitive skills, and
3. an educational foundation that facilitates and encourages life-long learning.

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Measuring Student Learning Outcomes in the General Education Core:

Phase II Report and Recommendations

Phase I of the General Education Outcomes (GEO) Forum's assignment was to conduct a thorough review Collin County Community College District's general education core curriculum and to make recommendations for revision. That task was completed in spring 2003. GEO Forum's final report and recommendations for phase I were completed on May 13, 2003. The report was subsequently presented to the Academic Deans and Curriculum Advisory Board during summer 2003. The report and recommendations are currently under review by those two groups prior to their submission to CCCCD's Leadership Team for final consideration and implementation.

Phase II of the GEO Forum's assignment was to develop recommendations for measuring and documenting student learning outcomes in the general education core curriculum. The group began work on phase II near the end of spring semester 2003. To provide a framework for subsequent discussion, a member of the group prepared a discussion paper (see Appendix A) that summarizes four general approaches to the measurement of student learning outcomes. After extensive discussion of the four models within the GEO Forum, members took the discussion to their faculty peers. After discussions with their peers, members of the GEO forum reached a consensus on a recommended approach to measuring and documenting student learning in the general education core curriculum.

The GEO Forum had three primary objectives in phase II. One objective was to develop a set of recommendations for measuring and documenting student outcomes that comply with the expectations of the Texas Higher Education Coordinating Board and the Southern Association of Colleges and Schools. Another objective was to minimize the burden on the institution and on faculty members in particular. The primary responsibility of CCCCD's faculty is and should remain to teach students. No matter how seemingly important or well intended, anything that distracts faculty members from that responsibility must not be permitted to significantly intrude on that primary role. The final, and most important, objective was to develop recommendations that would lead to a system of measuring student learning in the general education core curriculum that will document for students, lawmakers, and the public the degree to which students benefit from their general education learning experiences and that will give faculty and administrators information they need to ensure continued or improved educational quality.

Recommendation 1

First, the GEO Forum recommends that CCCCD's expectations in each general education course be clearly articulated to students at the beginning of the course by including all six Basic Intellectual Competencies in the Core Curriculum and all appropriate Core Area Exemplary Learning Objectives in the generic syllabi for each general education course. By making expectations clear at the beginning of each general education course, faculty members lay the foundation for subsequent assessment of learning outcomes in those courses.

Recommendation 2

The GEO Forum recommends formal adoption of the Professional Measurement Model (see Appendix A) as CCCCD's primary approach to measuring and documenting student learning outcomes. Implementation of the Professional Measurement Model as envisioned by the GEO Forum includes the expectation that faculty members document how they assess learning in general education courses (rather than in individual sections) relative to the Basic Intellectual Competencies in the Core Curriculum and the Core Area Exemplary Learning Objectives. The actual learning outcome are then to be reflected in students' grades. Since this approach is consistent with what faculty members already do to assess student learning outcomes in their classes, it should create minimal burden on them.

Recommendation 3

The GEO Forum recommends a standard format for documenting methods used in general education courses for assessing each Basic Intellectual Competency in the Core Curriculum and each Core Area Exemplary Learning Objective (See Appendix B). This documentation will be provided for each general education course. If more detailed information is needed about how individual faculty members assess student learning relative to expectations, this information is available in the instructors' syllabi.

Recommendation 4

The GEO Forum recommends that elements of the Macro Measurement Model (see Appendix A) be used to supplement the Professional Measurement Model for measuring student learning outcomes in the general education core curriculum. Specifically, CCCCD has for several years administered the Community College Student Experiences Questionnaire (CCSEQ) to degree and certificate recipients. The CCSEQ includes items that elicit students' perceptions of their own learning gains in specific areas such as the arts, literature, writing, oral communication and presentation, computer literacy, philosophy, cultural awareness, mathematics, science, history, politics, geography, wellness, social relationships, and high-level cognitive skills. This

information should be used to supplement the Professional Model in assessing the effectiveness of CCCCD's general education program.

Recommendation 5

The GEO Forum recommends that elements of the Subsequent Outcomes Model (see Appendix A) be used to supplement the Professional Measurement Model for measuring student learning outcomes in the general education core curriculum. Specifically, CCCCD should use feedback from universities when available to determine whether students successfully transfer to universities, whether students who transfer earn the baccalaureate degree, and whether or not completion of CCCCD's core curriculum contributes to any differential effects on these two outcomes.

Summary

The five recommendations of the GEO Forum uses elements of three different approaches to measuring and documenting student learning outcomes in the general education core curriculum. This triangulation uses professional assessments made by faculty members based on the institution's expectations which are clearly articulated to students in the generic syllabi at the outset of each course, students' perceptions of their own learning gains, and students' subsequent outcomes after they complete the general education core curriculum. The recommendations also accomplish the GEO Forum's objectives by providing a systematic institutional approach to measuring and documenting student learning outcomes that should satisfy the expectations of any oversight or accrediting body, it minimizes the burden on faculty and the institution by capitalizing on and systematizing processes that are essentially already in place, and it makes clear to students CCCCD's expectations in general education core curriculum while providing three different perspectives on the extent to which those expectations are met and the outcomes of having met them.

Appendix A

GEO Forum Discussion Paper:

Four Models for Assessing Learning Outcomes

in the General Education Core Curriculum

Discussion Paper: Four Models for Assessing Learning Outcomes in the General Education Core Curriculum

Prepared for the GEO Forum

June 12, 2003

Introduction

The purpose of this paper is to provide members of the GEO Forum with a summary of four approaches to the assessment of student learning outcomes in the general education core curriculum. Effective pedagogical practice as well as mandates from both the Southern Association of Colleges and Schools and the Texas Higher Education Coordinating Board call for Collin County Community College's faculty to document, in some fashion, how students benefit from the general education requirements imposed on them. The GEO Forum has defined the mission of the general education core curriculum as cultivating "within students (1) a common core of knowledge in the liberal arts tradition, (2) high-level cognitive skills, and (3) an educational foundation that facilitates and encourages life-long learning." In addition, the GEO Forum has recommended the adoption of specific competencies and learning objectives in the general education core curriculum. The question becomes, how do we document that we have accomplished the mission, competencies, and objectives for students who complete CCCCD's core curriculum?

The following sections provide summary definitions of four measurement models for assessing student learning outcomes in the general education core curriculum. Lists of strengths and weaknesses follow each summary. The lists are intended to be representative rather than exhaustive. Any approach to assessing learning outcomes in the general education core curriculum presumes that faculty members clearly articulate what competencies and learning objectives are covered in the course. Thus, at a minimum, each core course must include in its syllabus the basic competencies in the core curriculum and the exemplary learning outcomes mandated by the institution.

The GEO Forum has briefly discussed the first three of these models in recent meetings. In subsequent meetings we must decide which one of these models, or what combination of these models, or which other model best documents how students benefit from their experiences in our general education core curriculum. We must complete this task and make our recommendations by the end of fall 2003 so our recommendations can be reviewed and processes can be put in place for fall 2004.

Macro Measurement Model

Summary

A nationally normed test of general learning is administered to students as they complete the core curriculum to measure their overall mastery of "knowledge in the liberal arts tradition" and their "high-level cognitive skills." Examples of such tests are ACT's Collegiate Assessment of Academic Proficiency (CAAP), ETS' Academic Profile, or the Assessment Resource Center's College BASE. CCCCD's faculty would need to establish criteria in the form of cut scores that distinguish between students who have or have not attained the knowledge and skills alluded to in the mission of the general education core curriculum. Ideally, in order to document learning gains, this type of assessment would be administered twice: once when a student first enrolls at the college and again when the student completes the core curriculum.

In addition to the objective macro level measurement tools described above, there are more subjective forms of macro level measurement. Instruments like the Community College Student Experiences Questionnaire (CCSEQ) or the Community College Survey of Student Engagement (CCSSE) include subscales that measure students' subjective self-assessments of their own learning gains. While these measures are subjective, some research literature suggests that these measures correlate reasonably well with student performance as measured by grades.

Strengths

- Consistency of measurement across students.
- Measurements are taken after students have been exposed to the entire treatment program.
- The concept of a general measure of learning corresponds to the concept of general education.
- Completed tests are scored by the testing agencies, simplifying manpower demands on CCCCD.
- Results of the measurements are easy to tabulate and compare.
- Professionally normed tests are widely used and have credibility with the public, accrediting bodies, state bureaucrats and legislators.
- Requires no special effort on the part of faculty to reach consensus as to how learning should be assessed.
- If pre- and post- assessments are administered, this can be an effective means of documenting learning gains across the core curriculum.

Weaknesses

- The effective administration of an overall assessment of general learning requires a captive audience, a situation no community college enjoys.

    - In a university, all students who desire a baccalaureate degree can be required to take a test in some kind of capstone course in which this type of assessment could be administered.
    - Community college students demonstrate a countless variations in their patterns of attendance: some take one or two core classes and transfer, some take one or two core courses before stopping out for a while and returning at some indeterminate time, some complete most of the core, some complete the entire core.
    - Some students seeking an associate's degree who were told they must first take this type of test would opt not to receive the degree.
    - In a telephone conversation, an ACT official agreed that virtually no community college could effectively use tools like CAAP or Academic Profile to assess general learning because of their inability to capture students at a common exit point.
    - While some community colleges have experimented with the concept of an "assessment day" in an attempt to create an optimal opportunity for administering this type of assessment of general learning—and some give enthusiastic testimonials of the effort—when one probes, one finds that results are dismal.
- Nationally normed tests may not address the competencies and learning objectives the faculty deem as important.
- Students' subjective self-assessments of their own learning may not be consistent with what they actually learned.

Micro Measurement Model

Summary

Faculty members within a core discipline work together to develop a common set of tools to assess student learning relative to the general education competencies and objectives prescribed for each general education course offered by the discipline. Those tools could include written tests (objective or subjective), demonstrations, portfolios, etc. The same faculty members determine at what level(s) of performance a student demonstrates mastery on those assessments. Ideally, in order to document learning gains within the course, an assessment would be made at the beginning and at the end of each course.

Strengths

- Assessments focus on the competencies and learning objectives the faculty deem as important rather than on what a testing agency deems as important.

- Since it operates within courses, there is no need to "capture" students outside the framework of students' normal attendance patterns. Consequently, this approach is a better fit for community colleges.
- Gives faculty members the responsibility for determining how to measure student learning.
- Using a common set of tools for assessment in all sections of the same general education course ensures that a common core of knowledge and skills will be covered and all students will be assessed consistently regardless of which faculty members teaches a given course.
- If pre and post assessments are administered, this can be an effective means of documenting learning gains within a general education course.

Weaknesses

- Faculty members sometimes have difficulty in reaching consensus about how learning should be assessed.
- Some faculty members object to the concept of common assessments across courses.
- Unless the assessments are eventually normed, this model lacks some of the credibility of the Macro Model for external constituencies.
- May require classroom to administer the pre-assessment(s).

Professional Measurement Model

Summary

This is essentially the model faculty members now use to document student performance in the classroom. At the beginning of a course, faculty members articulate what they expect of students and at the end of the course faculty members make professional judgments of students relative to those initial criteria and award grades as measures of student performance.

Strengths

- Easy to implement because it places few demands on faculty members beyond what they already do.

Weaknesses

- Subject to the same criticisms of grade inflation and grading as an unreliable measure of student learning that have stoked the fires of the accountability movement among politicians, accrediting agencies, and the public.
- Fails to document measurable learning gains.

Subsequent Outcomes Model

Summary

Uses student data from transfer institutions to document performance of CCCCD degree completers and core curriculum completers as opposed to students who did not complete the core curriculum after the students leave CCCCD. Conceptually, this model assumes that students who have completed CCCCD's core curriculum are better prepared for university education than students who did not complete CCCCD's core. Consequently, one could expect core completers to demonstrate higher grades and rates of baccalaureate attainment than do non-core completers. Since this model presents the least complete picture of student learning outcomes among the four models presented, it may be most effective in combination with one of the other models.

Strengths

- Easy to implement because it places no demands on faculty members beyond what they already do.
- If the assumptions are supported, this model documents long-term benefits to students who complete CCCCD's general education core curriculum.
- This is a more holistic model that could be used to fill gaps in our understanding of the overall effects of general education in the micro-level and professional measurement models.

Weaknesses

- Legal restrictions related to student privacy make it difficult to get individual student performance data from universities.
- Fails to document specific student outcomes relative to the institution's stated expectations as articulated in the basic general core competencies and exemplary learning objectives.
- Makes some assumptions about the relationship between completing the core curriculum and subsequent outcomes that require substantiation.

Prepared by Thomas K. Martin, Ph.D.
Collin County Community College District

Appendix B

Proposed Format for Documenting Assessment Methods

in Each General Education Course

Template of Recommended Format for Documenting Methods Used to Assess Student Learning

General Education Core Curriculum
Student Learning Outcomes Assessment Methods Summary

Course:	
Division:	
Core Area:	
Date Completed:	

Basic Intellectual Competencies in the Core Curriculum	
Objective	Assessment Method
1 - READING: The ability to analyze and interpret a variety of printed materials - books, documents, and articles [above 12th grade level].	
2 - WRITING: The ability to produce clear, correct, and coherent prose adapted to purpose, occasion, audience [above 12th grade level].	
3 - SPEAKING: The ability to communicate orally in clear, coherent, and persuasive language appropriate to purpose, occasion, and audience [above 12th grade].	
4 - LISTENING: The ability to analyze and interpret various forms of spoken communication [above 12th grade].	
5 - CRITICAL THINKING: The ability to apply both qualitative and quantitative skills analytically and creatively to subject matter in order to solve problems, evaluate arguments, and construct alternate strategies.	
6 - COMPUTER LITERACY: The ability to use computer based technology in communicating, solving problems, acquiring information; an understanding of the relationships between technology and society; and the tools to evaluate and learn new technologies as they become available.	

Core Area Exemplary Educational Objectives[1]	
Objective	Assessment Method
1 -	
2 -	
3 -	
4 -	
5 -	
6 -	
7 -	
8 -	
9 -	
10 -	
11 -	
12 -	

More detailed information about how individual instructors assess learning in relationship to the Basic Intellectual Competencies in the Core Curriculum or the Core Area Exemplary Educational Objectives is available in the instructors' syllabi.[2]

[1]Note regarding template: Not all core areas include 12 Core Area Exemplary Educational Objectives. Courses would use only the number appropriate for the core area. Courses in the Physical Education Core Area have five Core Area Exemplary Learning Objectives they must address. Courses in the Natural Sciences Core Area have six Core Area Exemplary Learning Objectives they must address. Courses in the Communication, Composition, Speech, and Modern Language Core Area; the Computer Science Core Area; the Humanities and Visual and Performing Arts Core Area; the Mathematics Core Area each have seven Core Area Exemplary Educational Objectives. Courses in the Social and Behavioral Sciences Core Area have twelve Core Area Exemplary Learning Objectives they must address. Those who fill out the form would simply type in the appropriate Core Area Exemplary Learning Objectives and delete any unneeded rows from the Core Area Exemplary Education Objectives section of the form.

[2]This short paragraph is part of the template should appear on each form.

Example of Recommended Format Using SPCH1321

SAMPLE General Education Core Curriculum SAMPLE
Student Learning Outcomes Assessment Methods Summary

Course: SPCH1321 (Business and Professional Communication)
Core Area: Communication, Composition, Speech, and Modern Language
Date Completed:11/6/2003

Basic Intellectual Competencies in the Core Curriculum

Objective	Assessment Method
1 - READING: The ability to analyze and interpret a variety of printed materials - books, documents, and articles [above 12th grade level].	Students must read and understand the text book. Chapter quizzes assess their understanding of written information.
2 - WRITING: The ability to produce clear, correct, and coherent prose adapted to purpose, occasion, audience [above 12th grade level].	Students are required to complete two written papers.
3 - SPEAKING: The ability to communicate orally in clear, coherent, and persuasive language appropriate to purpose, occasion, and audience [above 12th grade].	Students make four individual presentations including two to inform and one to persuade. Their presentations are evaluated by the instructor and students on criteria that include the criteria in the objective.
4 - LISTENING: The ability to analyze and interpret various forms of spoken communication [above 12th grade].	One section of the course focuses on listening skills and how to improve them. Students must listen to lectures and to other students' presentations. Students' performance in assessing the quality of peers' presentations is one measure of listening skill. The final exam and students' performance on in-class presentations provide additional means to assess their understanding of oral information.
5 - CRITICAL THINKING: The ability to apply both qualitative and quantitative skills analytically and creatively to subject matter in order to solve problems, evaluate arguments, and construct alternate strategies.	Students are evaluated on their ability to judge the quality of their peers' presentations. In-class discussions give the instructor an opportunity to assess students' ability to analyze, evaluate, and debate. Students' in-class presentations provide an opportunity to assess students' ability to solve problems.
6 - COMPUTER LITERACY: The ability to use computer based technology in communicating, solving problems, acquiring information; an understanding of the relationships between technology and society; and the tools to evaluate and learn new technologies as they become available.	The final presentation of the semester requires students to integrate computer technology into their presentations. Students must demonstrate appropriate use of computer technology as a complement to their oral presentations.

Core Area Exemplary Educational Objectives	**SAMPLE**
Objective	Assessment Method
1 - Understand and demonstrate writing and speaking processes through invention, organization, drafting, revision, editing, and presentation.	Students complete two written assignments, four individual presentations, and one group presentation, all of which must demonstrate effective organization, editing, and presentation.
2 - Understand the importance of specifying audience and purpose and to select appropriate communication choices.	The evaluation of four individual presentations and one group presentation is based, among other things, on the student's ability to demonstrate appropriate specification of audience and purpose.
3 - Understand and appropriately apply modes of expression, i.e., descriptive, expositive, narrative, scientific, and self-expressive, in written, visual, and oral communication.	The evaluation of four individual presentations, one group presentation, and two written papers is based, among other things, on the student's ability to demonstrate understanding and expression in a variety of modes.
4 - Participate effectively in groups with emphasis on listening, critical and reflective thinking, and responding.	Students are required to participate in one major group presentation. The ability of students to listen and contribute to the group process is evaluated by the instructor and by students in the group.
5 - Understand and apply basic principles of critical thinking, problem solving, and technical proficiency in the development of exposition and argument.	Students must make a persuasive presentation that requires them to demonstrate effective critical thinking, problem solving, and argument. In addition, a written assignment in which students are required to critically evaluate a printed speech on a contemporary issue by a prominent speaker requires them to demonstrate effective critical thinking, problem solving, exposition, and argument.
6 - Develop the ability to research and write a documented paper and/or to give an oral presentation.	Students are required to write one paper that involves citation of both printed and electronic sources. Students are also required to make four individual presentations and one group presentation.
7 - Develop an awareness and understanding of cultural diversity.	One segment of the course focuses on intercultural communication. Students must demonstrate their understanding of the topic in a chapter quiz and in class discussion.

More detailed information about how individual instructors assess learning in relationship to the Basic Intellectual Competencies in the Core Curriculum or the Core Area Exemplary Educational Objectives is available in the instructors' syllabi.