

Committee on Educational Planning, Policies, and Programs

February 20, 2014

Report from the UNC General Education Council.....Suzanne Ortega/Katharine Stewart

Situation: *Our Time, Our Future*, the Strategic Directions plan for UNC, established a General Education Council (GEC) and directed the GEC to provide initial recommendations by the end of January 2014.

Background: The GEC was charged with completing a comprehensive review of existing general education architecture, and, from this review, developing a recommended set of learning outcomes that are appropriate for all of the UNC institutions. It was further charged with exploring methodologies appropriate to assessing these outcomes and making recommendations about proposed operational definitions, tools, and research design for measuring the competencies.

Assessment: The attached report reviews the work of the GEC and its recommendations, including (1) the selection of critical thinking and written communication as core competencies that are most important to both faculty and employers, (2) the principles of good assessment as both a strategy to document student achievement and a way to support ongoing improvements in teaching and learning, (3) the need to address concerns about existing instruments and their administration in any assessment to be deployed system-wide, and (4) the emerging opportunity to develop a system-wide assessment instrument that will be sufficiently granular to help faculty improve their teaching and sufficiently flexible to assure policy makers and administrators that, in the aggregate, student performance improves as a result of time spent doing university-level academic work.

Action: This item is for information.

Report of the UNC General Education Council

January 2014

Abstract

The General Education Council (GEC) has sought expert advice, studied best practices, and solicited input from UNC faculty and academic leadership to fulfill its charge to develop UNC-wide general education learning outcomes and methodologies to assess them. The GEC recommends that UNC follow recognized principles of good assessment, chief of which is that assessment should improve teaching and learning. After consultation with the UNC faculty, the GEC prioritized critical thinking and written communication as the core learning outcomes to assess across the system. Because of the limitations of existing tools, the GEC recommends that UNC develop a new standardized assessment in consultation with Educational Testing Service (ETS). During the spring semester, the GEC will refine the definitions of the recommended learning outcomes; explore the demands of developing a new assessment; study the CLA pilot to identify the conditions for the successful implementation of a standardized assessment; explore other ways of assessing learning outcomes, such as e-portfolios; and share its deliberations and to seek the advice of UNC faculty and administrators. This report reviews the charge of the GEC; establishes a research based set of best practices for assessment; reviews the achievements of the GEC; and identifies the necessary steps for additional progress.

Introduction

In February 2013, the UNC Board of Governors released a new five year strategic plan for the UNC system. Goal two of *Our Time, Our Future: The UNC Compact with North Carolina* commits UNC to “maintaining the highest academic quality and taking a leadership role in assessing student learning.”¹ Further, it directs UNC to, “become a national leader in the assessment of student learning outcomes,”² while maintaining existing campus level accreditation and discipline specific accreditations.³

In March of 2013, President Ross appointed the General Education Council (GEC), a working group composed of faculty and administrators from each of the 17 UNC institutions (see Appendix A for a list of the members of the GEC). The charge of the GEC has two major facets. The first is to complete a “comprehensive review of existing general education architecture,”

¹ *Our Time, Our Future: The UNC Compact with North Carolina*. 2013.

http://www.northcarolina.edu/strategic_direction/STRATEGIC_DIRECTIONS_2013-2018.pdf. Page 37.

² *Our Time, Our Future: The UNC Compact with North Carolina*. 2013. Page 38.

³ All UNC campuses are accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACS). As a condition of SACS accreditation all campuses must assess student learning outcomes consistently and have a Quality Enhancement Plan (QEP) for self-improvement. In addition, many professional programs are separately accredited. Examples of professional accreditations include Association to Advance Collegiate Schools of Business (ABET); National Association of Schools of Public Affairs and Administration (NASPAA) and the Commission on Collegiate Nursing Education (CCNE).

and, from this review, develop a recommended set of learning outcomes that are appropriate for all of the UNC institutions. The second is to “explore methodologies appropriate to assessing these outcomes.”⁴ The charge of the GEC instructs it to develop a set of recommendations about assessment by January 2014, a nine month time frame.

Assessment of student learning is a key component of university self-evaluation and external accreditation. All UNC institutions have established student learning outcomes for their programs, collect data regularly, and use those data for program improvement. Indeed, the typical UNC student will be evaluated by over 40 individuals over the course of his or her enrollment, and his or her personal performance on learning outcomes will be tracked for at least 14-16 weeks by each of those individuals. This longitudinal tracking of student performance is in contrast to the use of standardized instruments in place at each UNC institution, which can provide a snapshot of a student’s ability at one point in time and which are often limited to an aggregate view of a program’s performance.

Even in light of these practices, the GEC’s undertaking is groundbreaking: we have been asked to define and assess common competencies across a system of multiple institutions with different missions, different programs of study, and different student bodies. We are unable to identify a case in which this has been done by other U.S. institutions of comparable size and complexity. Within this context, we have sought to

- reach a broad consensus around key competencies for UNC system graduates that are viewed by faculty as important educational outcomes and which are responsive to the needs of those who employ those graduates;
- define the concepts that make up the competencies;
- articulate a set of principles to guide our selection of an assessment methodology; and
- identify research questions that must be answered to guide an effective assessment process that can inform improvements in curricula as well as in teaching and learning.

Principles of Good Assessment

We have relied on institutional experience, the testimony of national experts, and a significant body of published work on assessment to define a set of standards that will guide our recommendations. Evidence clearly indicates that in order to be effective, assessment must:

- be viewed as a cyclic process that “closes the loop” by connecting assessment outcomes to improvements in teaching and encouraging innovative approaches to instruction;
- have strong faculty buy-in if it is to be used effectively;

⁴ *Our Time, Our Future: The UNC Compact with North Carolina* 2013. Page 44. General Education Council Charge and Roster, April 2013.

http://www.northcarolina.edu/facultyassembly/spic/Charge_and_Roster_GeneralEducationCouncil.pdf.

- be authentic, that is, evaluate effortful student work that is relevant to key learning outcomes (AAC&U, 2012⁵);
- be viewed by students, faculty, and administrators as an ongoing institutional investment;
- be appropriate for the varied student populations in the UNC system and the paths these students take in pursuit of undergraduate degrees;
- include instruments that are reliable and valid measures of the skills they purport to measure; and
- be both sufficiently granular to help faculty improve their teaching and sufficiently flexible to assure policy makers and administrators that, in the aggregate, student performance improves as a result of time spent doing university-level academic work.

Through the efforts of the GEC, especially the Collegiate Learning Assessment (CLA) and Engaging Experts Subcommittees (described below), we have learned that identifying a measure or set of measures that meets these criteria is a significant challenge. Strategies that may be especially strong on some assessment principles, such as authenticity (defined as being closely associated with relevant academic work) may pose challenges for other principles, such as reliability (defined as consistency in scoring over multiple settings or multiple scorers). Other approaches that yield reliable overall scores may not be helpful in identifying the specific areas or skills in which students need additional improvement, thus limiting the test's usefulness for improving the curriculum.

In addition, every assessment strategy must be considered in light of the logistical challenges it poses, including issues of sampling (when to test students in their academic careers, how many students to test to assure that scores can be reliably interpreted, how to assure that the sample includes sufficient numbers of students from important groups such as transfer students or students in high-priority program areas), examinee motivation (particularly among upperclassmen, who may perceive the assessment as low-stakes, which may lead to under-performance), time (in terms of student, faculty, and staff effort), and cost (both financial and opportunity costs).

Because the goals outlined in *Our Time Our Future* include demonstrating students' achievement of core competencies at an institutional level, as well using assessment results to improve the curriculum with respect to the core competencies, and because existing assessments tend to support one of these goals much more than the other, the central challenge faced by the GEC is to identify assessment strategies that support both goals while maximizing adherence to the principles of good assessment as outlined above.

⁵ Sullivan, Schneider, Rhodes, O'Shea, and Humphreys. 2012. A Sea Change on Student Learning Assessment. Association of American Colleges and Universities.

<http://www.aacu.org/qc/documents/AACUAssessmentConceptPaper2-17-2012.pdf>

See also, Rhodes, Terrel. ed. 2010. Assessing Outcomes and Improving Achievement: Tips and Tools for Using Rubrics. Washington, DC: Association of American Colleges and Universities.

General Education Council Work and Timeline

To accomplish its work, the GEC organized itself into five subcommittees, each with a specific set of tasks related to the overall charge. The subcommittees are: Core Competencies; Engaging Experts/Quantitative Assessment; Collegiate Learning Assessment; Qualitative Assessment; and Communications.

Core Competencies Subcommittee

As a starting point, this subcommittee compiled a comprehensive list of the competencies stated or implied in each UNC institution's general education program. Based on this compilation and the list of AAC&U Essential Learning Outcomes⁶ that have been derived, in part, from employer surveys, the subcommittee developed a survey instrument and deployed it across the campuses to solicit faculty input on those competencies viewed as most important. Over 3,000 faculty participated in the survey, allowing the subcommittee to identify two competencies that were strongly endorsed by the majority of participants: Critical Thinking and Written Communication. These are certainly not the only competencies that are important in General Education or in higher education overall, but it is significant that, despite the differences in UNC institutions, these two competencies were viewed as the most important at each UNC campus. These two competencies are also consistent with both UNC's own survey of the skills needed by North Carolina employers⁷ and the top priorities of the 2013 Hart Research survey of employers, which reported that "nearly all of those [employers] surveyed (93%) agree [that] a candidate's demonstrated capacity to think critically, communicate clearly, and solve complex problems is more important than their undergraduate major."⁸ Throughout the process of competency research and identification, the Core Competencies subcommittee worked to effectively engage faculty and staff in its deliberations. The subcommittee obtained the UNC Faculty Assembly's endorsement and the endorsement of all 17 Faculty Senates (or Councils) for the two Core Competencies.

Developing clarity around the definitions is an essential step in reaching agreement around an assessment strategy for system-wide use. Because both Critical Thinking and Written Communication are complex skills and abilities made up of multiple component skills, the subcommittee deployed a second system-wide survey instrument in December 2013 to determine the perceived relevance of these component skills, or subcompetencies (see Appendix B for a list of the subcompetencies). Over 1,900 faculty from more than 100 disciplines responded to this second survey and overwhelmingly agreed that each of the identified component skills of Critical Thinking and Written Communication are considered central or relevant to their disciplines.

⁶ http://www.aacu.org/leap/documents/EssentialOutcomes_Chart.pdf.

⁷ Business Listening Sessions, Nov-Dec, 2012. http://www.northcarolina.edu/public_service/econ_dev/strat1.htm.

⁸ Hart Research Associates. "It Takes More Than a Major: Employer Priorities for College Learning and Student Success." April, 2013. Page 1. http://www.aacu.org/leap/documents/2013_EmployerSurvey.pdf.

Engaging Experts/Quantitative Assessment

In their effort to investigate available tools, methodologies, and implementation strategies, this subcommittee interviewed in person or by videoconference nationally recognized experts on assessment during the months of October and November. Interviewed experts included representatives from the Critical Thinking Assessment Test (CAT), an instrument developed at Tennessee Tech University under a grant from the National Science Foundation; researchers from Educational Testing Services (ETS), the company that has developed the Proficiency Profile (ETS PP); members of the Council for Aid to Education (CEA), the group that offers the Collegiate Learning Assessment (CLA); assessment personnel from Clemson University who have been working with e-portfolios as well as the ETS PP and CAT; and James Madison University experts on campus-wide assessment strategies; representatives from the American Association of Colleges and Universities (AAC&U) on their VALUE rubrics; and two UNC system faculty who are experts on assessment design and psychometrics.

While there is appeal to the ease of adopting an off the shelf test, the discussions with experts highlighted a number of significant challenges:

- the inability of many tests to provide both a reliable overall measure of students' proficiency in the competencies and a reliable measure of students' relative strengths and weaknesses in the component skills or subcompetencies;
- the inability of many tests to reliably measure student performance at the upper and lower ranges of proficiency in the competencies;
- the weak reliability of the scores of subcompetencies and of scores for smaller populations of students, which is particularly critical for informing curricular improvements;
- the challenges of student motivation in taking such tests, and the limits of incentives, including monetary incentives, to enhance motivation;
- difficulties in obtaining representative samples, particularly for college seniors; and
- faculty concerns that use of a standardized test would be inauthentic and lead to "teaching to the test."

E-portfolios were discussed as an adjunct to or substitute for tests because they would provide a mechanism for tracking student progress over time and add details that would not be captured in a standardized test. The Qualitative Assessment subcommittee thus took on the charge of a more detailed exploration of e-portfolios as an assessment instrument.

The Quantitative/Engaging Experts subcommittee recommended to the GEC that we pursue the development of a new approach with ETS, a leader in assessment with the expertise and capacity to develop a reliable, valid, and authentic instrument that would meet the needs of UNC. A small group met with ETS staff in Princeton in early January to explore the development of an instrument that would engage faculty from across the UNC system to assure the measure's

relevance to effortful student work, provide a level of detail on the core competencies that would serve our campuses, augment existing assessment, be reliable and valid such that the measure will support conclusions about student competencies, and be cost effective. We discussed the shortcomings of existing tools, the needs of the UNC system, and a process for developing a new instrument.

Collegiate Learning Assessment (CLA)

This subcommittee was charged with investigating the feasibility of system wide implementation of the Collegiate Learning Assessment (CLA) developed by the Council for Aid to Education (CAE). The subcommittee recruited five campuses to pilot the use of the CLA with samples of freshmen and seniors.⁹ The participating campuses are Appalachian State University, East Carolina University, Fayetteville State University, University of North Carolina Pembroke, and Western Carolina University. The subcommittee also participated in detailed discussions with CAE representatives about the CLA's match with the selected core competencies, the authenticity of the test, scoring, and score reporting, use as a "value-added" or proficiency measure, sampling, use of results, administration, and incentives and motivation. Many of the questions addressed apply to any standardized test.

The CLA was viewed as consistent with the Core Competencies. It requires significant writing, qualifies as authentic, and was developed to track changes in student learning over time. Many of these same features make the CLA costly to use. Current and previous use of the CLA on UNC campuses has required substantial financial incentives in order to generate sufficient sample sizes. The impact of financial and other incentives on the test results is unknown but existing research suggests that student motivation is a significant challenge that can affect test scores to a substantial degree.¹⁰ Importantly, it is not clear that the CLA provides information at a level of detail that will enable faculty to drive adjustments in curricula or pedagogy with the goal of improving student performance. The pilot currently underway will assist the GEC in answering some of these questions. The subcommittee is continuing its pilot, testing a sample of seniors in spring 2014.¹¹

Qualitative Assessment

To examine the possibility of multi-modal assessment of the Core Competencies, the Qualitative subcommittee was charged with conducting research on methodologies of assessment beyond existing standardized tests. Specifically, the subcommittee was charged with developing an

⁹ The pilot study began in August 2013 with entering first-year students from the five participating campuses. Students were tested on campuses in August, September, and October. The second phase of the pilot will occur in Spring 2014 with exiting Seniors from all five institutions.

¹⁰ O. Lydia Liu, Brent Bridgeman, and Rachel M. Adler. "Measuring Learning Outcomes in Higher Education: Motivation Matters." *Educational Researcher*, 41(9), pages 352-362.

¹¹ The CLA was administered in the first half of the fall semester on the participating UNC campuses. To date, CLA test scores have not been returned to the institutions by CAE.

understanding of existing e-portfolio use and other approaches to qualitative data collection. The subcommittee was asked to evaluate successful uses, as well as potential challenges, of broad implementation of such tools, including the feasibility and costs associated with platform adoption; data collection, storage, security, retention, and portability; rubric development and application; and mechanisms for providing feedback to both faculty and students.

E-Portfolios are in use at some UNC institutions for assessment of specific aspects of general education programs as well as assessment in various disciplines. They are regarded as especially effective assessment approaches for the purpose of identifying students' achievement of competencies and subcompetencies at a detailed level; therefore, they have the potential to provide useful information for use in curricular improvement efforts. The challenge of e-portfolios as currently used is that credible assessment of student work is a labor and cost-intensive process that may not be feasible at a system level.

To respond to its charge, the Qualitative Assessment subcommittee developed and administered a system-wide survey on the use of digital portfolios for the purpose of assessment (September 2013). Based on the results, the subcommittee developed a RFP soliciting pilot studies of digital portfolios for assessment of the Core Competencies in general education programs across the system (October 2013). The subcommittee received 14 applications from eleven institutions in late December 2013 and will award approximately \$70,000 in contracts in January 2014 to four proposals representing five campuses for Spring and Fall 2014 implementation.¹²

Communications

The Communications subcommittee was charged with ensuring that the work of the General Education Council and its subcommittees was as transparent and open as possible. The subcommittee kept all interested faculty and administrators fully informed of the GEC's work and its timetable through the distribution of regular summaries of the GEC's and various subcommittees work in progress. The subcommittee was responsible for developing and fielding the surveys that enabled the GEC to solicit input from faculty across the UNC system campuses.

Next Steps

The GEC has adhered as closely as possible to the aggressive timeline identified in the *Our Time, Our Future*. The Council will continue to conduct its research and pilot studies and use the results to advance the UNC system's practices in assessment, addressing the goals of *Our Time, Our Future* for ensuring the quality of education across the system with respect to the core competencies. While there is not strong support for the use of any currently available standard tests, including the CLA, the GEC anticipates that the current pilot study on the CLA and our consultations with ETS will yield valuable information on issues of implementation for system-

¹² The five campuses are North Carolina A&T State University, University of North Carolina Chapel Hill, University of North Carolina Charlotte, University of North Carolina Greensboro, and University of North Carolina Wilmington.

wide assessments. During the spring semester, we expect to resolve the question of whether we can develop a new tool that supports our goals and overcomes the disadvantages inherent in current instruments. Our goal would be to have a tool ready for beta testing in spring 2015.

Our work to date has raised a wide range of research questions that we will continue to address as we work toward a system-wide assessment of the selected competencies. These include questions around practical issues in the implementation of any assessment strategy as well as the dual use of an instrument for diagnostic and summative assessments; the value of multiple assessment strategies for understanding student achievement of competencies; the determination of differences (if any) among part-time, transfer, and first-time full-time students with respect to competency attainment; the impact of disciplinary-specific study on the core competencies; appropriate benchmarks for assessing performance and improvement; and the impact of non-cognitive factors on competency development.

As we move forward, the GEC will also consider how to best collect, present, and use data from the assessment instruments that are selected and developed to understand students' development of proficiency in the core competencies. More importantly, the GEC will work to identify ways that UNC's constituent institutions can work together and share strategies for improving students' mastery of the core competencies. To achieve the goals related to student learning outcomes as described in *Our Time, Our Future*, the focus must be not merely on test scores or other assessment results, but also on how those results are used to improve teaching, learning, and shape educational policy and process throughout the UNC system, ensuring that UNC will be in a leadership role in the assessment of student learning outcomes.

Appendix A

Membership of the UNC General Education Council

Terry Ackerman, UNCG, ex officio

Brenda Allen, WSSU, Chair of the Core Competencies Subcommittee

Patrick Bahls, UNCA

Stephanie Dance Barnes, WSSU

John Brooks, FSU, Chair of the College Learning Assessment (CLA) Subcommittee

Kim Brown, UNCA

Austin Bunch, ECU

Cara Cilano, UNCW

Richard Gay, UNCP

Bob Gotwals, NCSSM

Kim Harris, UNCC

Marie Hoepfl, ASU, Chair of the Qualitative Assessment Subcommittee

Jennifer Horan, UNCW, Co-Chair of the GEC

Hans Kellner, NCSU

Joan Lorden, UNCC, Co-Chair of the GEC

Erin McNelis, WCU

Paulette Marty, ASU, Chair of the Communications Subcommittee

Andrew Morehead, ECU

Mike Mullen, NCSU, Chair of the Engaging Experts/Quantitative Assessment Subcommittee

Abigail Panter, UNC-CH

Valerie Pruvost, UNC-CH

Catherine Rigsby, ECU/FA

Roy Schwartzman, UNCG, ex officio

Shawn Sendlinger, NCCU

Dipendra Sengupta, ECSU

Scott Simkins, NCA&T

Rachel Smith, UNCP

Katharine Stewart, UNCGA, ex officio, General Administration Liaison to the GEC

Lisa Tolbert, UNCG

Appendix B
Prioritized Competencies and Sub-Competencies
UNC General Education Council
January 2014

A. CRITICAL THINKING

Definition: Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas and assumptions, artifacts, data, and events before accepting or formulating an opinion, hypothesis or conclusion.

Sub-competencies (students can . . .):

- Formulate a statement of the issues or define the problem
- Evaluate evidence and/or data
- Consider context and assumptions
- Propose an interpretation, perspective, model, or hypothesis
- Articulate arguments, conclusions, implications, and/or solution

B. WRITTEN COMMUNICATION

Definition: Written communication is the development and expression of ideas in writing. Written communication involves learning to work in many genres and styles. It can involve working with many different writing technologies, and mixing texts, data, and images. Written communication abilities develop through iterative experiences across the curriculum.

Sub-competencies (students can . . .):

- Demonstrate understanding of context and purpose
- Select appropriate, relevant, and compelling content
- Comply with genre and disciplinary conventions
- Select credible sources and evidence to support argument/ideas
- Utilize correct syntax and mechanics to clearly and unambiguously communicate ideas and perspectives