Report to the Faculty Senate on GenEd Assessment: The Multi-State Collaborative

November 13, 2017

Faculty Senate Motion, unanimously approved March 14, 2016: To extend the Academic Assessment Committee's mandate to assess General Education using Multi-state Collaborative data for another two years, with a requirement for the committee to report on this assessment within two years.

Purpose

In 2014, the Faculty Senate empowered the Academic Assessment Committee (AAC) to participate in the Multi-State Collaborative (MSC) and pilot an in-house assessment program based on the MSC model. The AAC wishes to share what we have learned over the past three years and recommend that Faculty Senate approve the in-house MSC-based model as our primary mode of general education assessment.

General Education and Department-Level Assessment

CCSU's General Education program provides students with an educational foundation on which to build their intellectual, personal, civic, social, and cultural lives. The university's General Education Learning Outcomes (Objectives) articulate broad competencies detailing what students should know and be able to do upon graduation. To attain these competencies, students forge their educational path through a series of discipline-based courses in designated Study and Skill Areas. Importantly, GenEd competencies are not unique to schools, disciplines, or individual departments. Indeed, such competencies even transcend specifically designated GenEd courses.

In Spring 2008, CCSU Faculty Senate passed a resolution giving faculty the responsibility of programmatically assessing student learning through a faculty-driven and institutionally-supported peer-review process. Thus, the AAC was established and, with support from the Office of Institutional Research and Assessment (OIRA), provides feedback to departments about their academic program assessment and coordinates general education assessment initiatives. The AAC's initial attempts at General Education assessment mirrored the approach to departmental program assessment: Each department would select general education outcomes to measure and then, and they would develop the means to measure those outcomes in department-specific courses designated as GenEd.

This model of GenEd assessment poses numerous challenges. First, the model places additional demands on departments to assess not only their baccalaureate degree-granting programs, but also GenEd. To conserve resources, departments understandably use GenEd courses not only for GenEd assessment but also programmatic assessment. As such, multiple departments across campus aspire to common GenEd objectives, such as written communication. Yet, we have no common strategy or benchmarks to gauge our common objectives. Additionally, some GenEd courses for interdisciplinary programs (e.g., Gerontology, WGSS), while housed in specific departments, are not often included in the assessment process despite the value they provide to students. Consequently, the AAC comes away with a fractured and incomplete understanding of how our students are developing General Education competencies. The model of departmental-level GenEd assessment, though it does provide a measure of student performance in specific courses within academic departments, does not provide a holistic and institution-wide view of the competencies we embrace as General Education.

The Multi-State Collaborative

In response to these challenges, the AAC in consultation with OIRA decided to participate in the Multi-State Collaborative (MSC) in Spring 2014. The MSC is now a thirteen-state assessment initiative spearheaded by the American Association of Colleges and Universities (AAC&U) and the State Higher Education Executive Officers (SHEEO). Faculty across the country have developed and normed VALUE rubrics that measure broad competencies consistent with our institutional goals for General Education (e.g., critical thinking, civic engagement, written communication). Further, this model evaluates faculty-designed, course-embedded assignments that are important to students (i.e., graded). CCSU faculty voluntarily submit student artifacts for inclusion in a national database for scoring by both faculty in other participating institutions as well as CCSU faculty. More information about the MSC procedure can be found in the AAC's 2014-15 Pilot Year Summary.

Our participation in the MSC has given us insight into how our students' learning compares to national averages for other 4-year institutions. As illustrated in Figure 1, our seniors fare well on critical thinking and quantitative reasoning, but lag in written communication. Although scores can range from 0 to 4, scores of 4 are *aspirational*; that is, only exceptional undergraduates could reach this level of mastery upon graduation. Scores between 2 and 3 reflect proficiency.
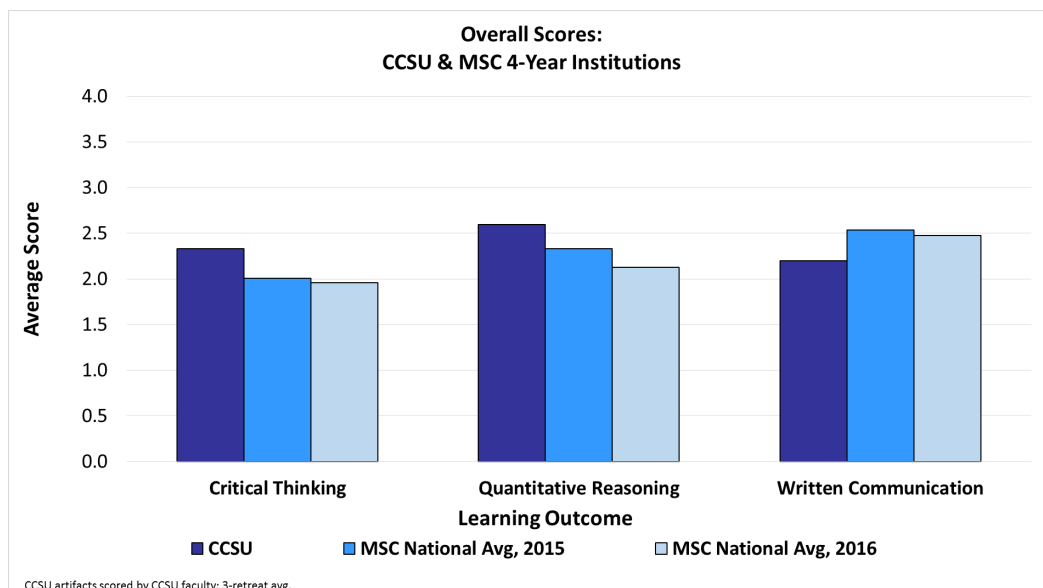

Figure 1. CCSU Seniors Compared to National Results. Artifacts collected in AY2015 & AY2016

In April 2015, the Faculty Senate endorsed the AAC to pilot an in-house MSC model to assess CCSU's GenEd Learning Outcomes.

Adapting the Multi-State Collaborative Model for Institutional General Education Assessment

The MSC model gives CCSU faculty a unified, in-house mechanism to assess General Education competencies. CCSU faculty who are interested in participating submit student artifacts measuring specific competencies to OIRA. OIRA de-identifies artifacts and uploads them to TaskStream, an online program which facilitates scoring. At retreats occurring in Summer and Winter, faculty volunteers first complete a norming session to establish acceptable levels of inter-rater reliability and then score artifacts. Each artifact is scored by 2 to 3 faculty and the scores are averaged across scorers and assignments.

The first scoring retreat was held in May 2015 with subsequent scoring retreats in January 2016, August 2016, and August 2017. To date, 58 faculty across 28 academic departments have participated in this initiative. Since the program's inception, we have collected and scored artifacts on Critical Thinking (CCSU's Learning Outcome #4: Critical Thinking Skills), Written Communication (CCSU's Learning Outcome #5: Writing Skills), and Quantitative Reasoning (CCSU's Learning Outcome #6: Quantitative Skills). In Fall 2016, we began collecting artifacts for Civic Engagement, (CCSU's Learning Outcome #10: Civic Responsibility) and Information Literacy (CCSU's Learning Outcome #7: Information Fluency and Computer Literacy).

Of special note, our in-house model has received regional attention from NEASC and national attention in *The Chronicle of Higher Education* as well as numerous conferences, including an invitation to present at the December 2016 NEASC Annual Conference. (See Appendix D)

Findings

Critical Thinking (Seniors)

As reported in Table 1 and Figure 2, our students are proficient at selecting and using *Evidence* to investigate a point of view, presenting a thesis or demonstrating *Student Position, Explanation of Issues,* and *Conclusions and Related Outcomes*. However, 30% of our seniors are only beginning to identify and explore contexts and assumptions (*Influence of Context and Assumptions*). Developing this particular skill is challenging across higher education: Although CCSU seniors scored an average of 2.1, the national average was 1.8.

Table 1 CCSU Faculty Scoring Critical Thinking Artifacts from CCSU Seniors vs. National Results

| Critical Thinking	Conclusions and Related Outcomes		Evidence		Explanation of Issues		Influence of Context and Assumptions		Student's Position		Overall Avg
	N	Avg	N	Avg	N	Avg	N	Avg	N	Avg	
Seniors only	**167**	**2.3**	**167**	**2.4**	**167**	**2.4**	**167**	**2.1**	**167**	**2.4**	**2.3**
Retreat 1	51	2.2	51	2.4	51	2.3	51	1.8	51	2.3	2.2
Retreat 2	42	2.3	42	2.3	42	2.3	42	2.0	42	2.2	2.2
Retreat 3	74	2.3	74	2.6	74	2.6	74	2.4	74	2.4	2.5
Nat'l - 2016	1.9		2.0		2.1		1.8		1.9		**2.0**
Nat'l - 2015	2.0		2.0		2.4		1.8		1.9		**2.0**

Critical Thinking, Senior Level Students
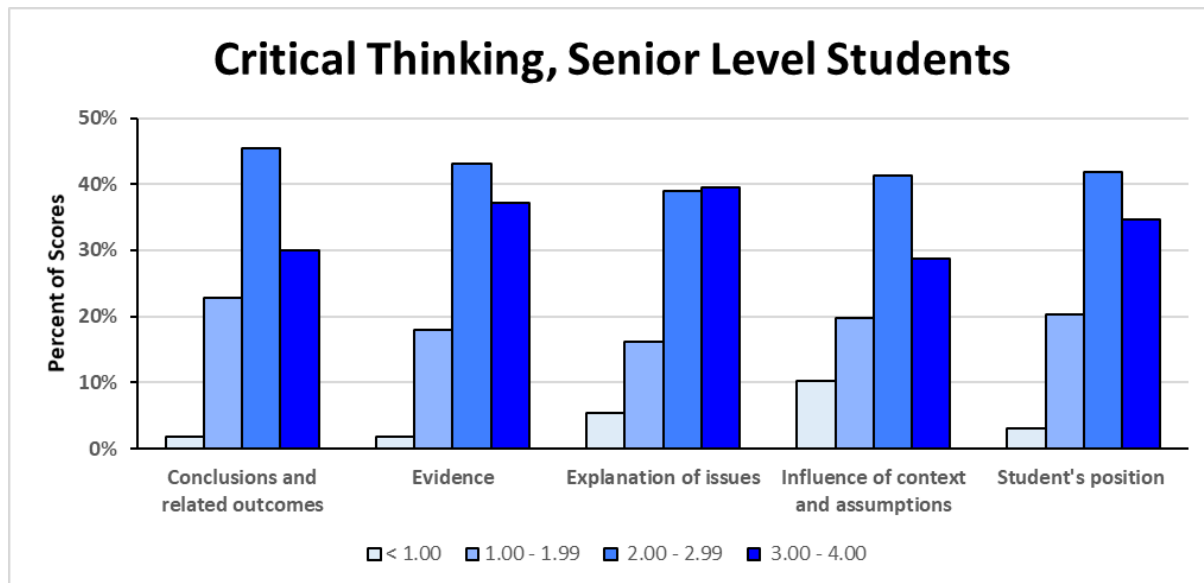
Quantitative Reasoning (Seniors)

As reported in Table 2 and Figure 3, our students are particularly skilled at *Representing* mathematical forms (e.g., graphs, tables, equations, etc.), interpreting quantitative information *(Interpretation),* and successfully and comprehensively performing *Calculations*. However, our students exhibit greater difficulty effectively connecting quantitative evidence to an argument (*Communication*) and making/evaluating important *Assumptions* in estimation, modeling, and data analysis. With the exception of the *Communication* dimension, CCSU seniors exceed national averages. We should note that the low score in Assumptions may be related to artifacts not aligning well with the rubric. Even at the national level, scoring assumptions is challenging. Nevertheless, the parallels between expressing assumptions in quantitative reasoning and more generally in critical thinking (see above) warrant further exploration.

Table 2 CCSU Faculty Scoring Quantitative Reasoning Artifacts from CCSU Seniors vs. National Results

Quantitative Reasoning	Application /Analysis		Assumptions		Calculation		Communication		Interpretation		Representation		Overall Avg
	N	Avg	N	Avg	N	Avg	N	Avg	N	Avg	N	Avg	
Seniors only	**179**	**2.6**	**84**	**2.0**	**189**	**2.9**	**165**	**2.1**	**179**	**2.7**	**160**	**3.0**	**2.6**
Retreat 1	69	2.6	69	2.1	78	2.8	78	2.7	69	2.6	69	2.8	2.6
Retreat 2	46	2.7	15	1.4	48	3.1	29	1.9	46	2.8	46	3.1	2.7
Retreat 3	64	2.6			63	2.9	58	1.5	64	2.8	45	3.2	2.6
Nat'l - 2016	2.2		1.5		2.3		2.3		2.4		2.3		2.1
Nat'l - 2015	2.4		1.7		2.6		2.5		2.5		2.4		2.3

Figure 3 CCSU Faculty Scoring Quantitative Reasoning Artifacts, Retreats 1, 2 & 3
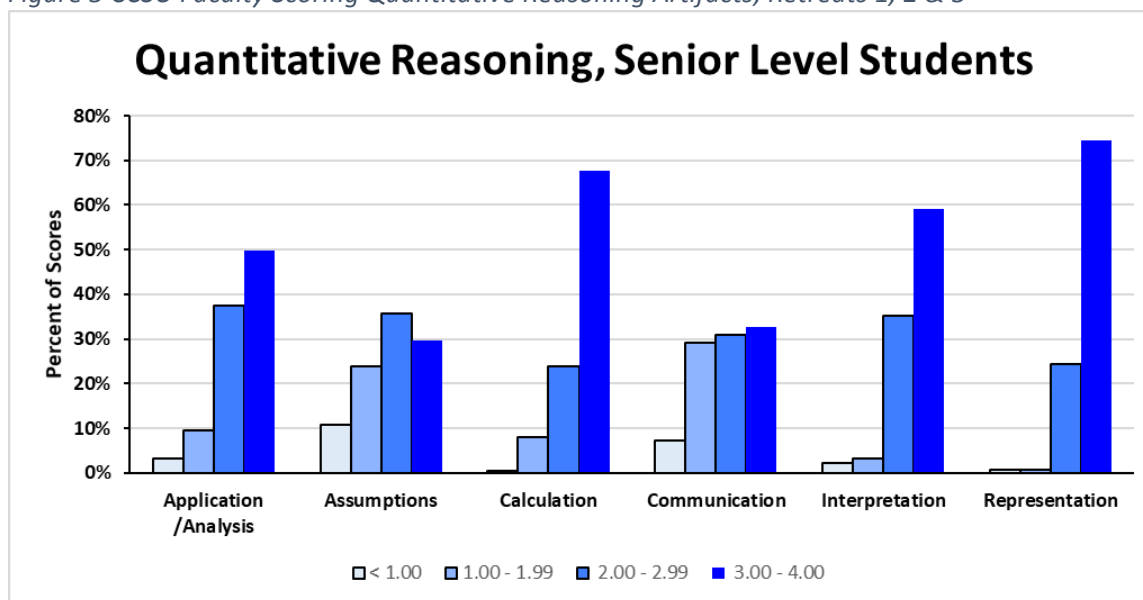


Written Communication (Seniors)

As reported in Table 3 and Figure 4, our seniors struggle in Written Communication. CCSU Senior artifacts scored lower in all Written Communication criteria/dimensions than the national averages. Still, our students demonstrate the greatest proficiency in *Context of and Purpose for Writing, Control of Syntax & Mechanics,* and *Content Development*. Students' greatest opportunities for growth include effectively communicating within a genre or discipline (*Genre & Disciplinary Conventions*) and using appropriate sources to support ideas (*Sources and Evidence*).

Table 3 CCSU Faculty Scoring Written Communication Artifacts from CCSU Seniors vs. National Results

Written Communication	Content Development		Context of and Purpose for Writing		Control of Syntax and Mechanics		Genre and Disciplinary Conventions		Sources and Evidence		Overall Avg
	N	Avg	N	Avg	N	Avg	N	Avg	N	Avg	
Seniors only	**164**	**2.3**	**164**	**2.4**	**164**	**2.3**	**141**	**2.2**	**164**	**1.9**	**2.2**
Retreat 1	47	2.1	47	2.3	47	2.4	47	2.2	47	1.5	2.1
Retreat 2	44	2.4	44	2.4	44	2.1	44	2.3	44	2.2	2.3
Retreat 3	73	2.3	73	2.4	73	2.3	50	2.1	73	1.9	2.2
Nat'l - 2016	**2.5**		**2.7**		**2.5**		**2.4**		**2.2**		**2.5**
Nat'l - 2015	**2.7**		**2.7**		**2.6**		**2.6**		**2.2**		**2.5**

Figure 4 CCSU Faculty Scoring Written Communication Artifacts, Retreats 1, 2 & 3

Written Communication, Senior Level Students
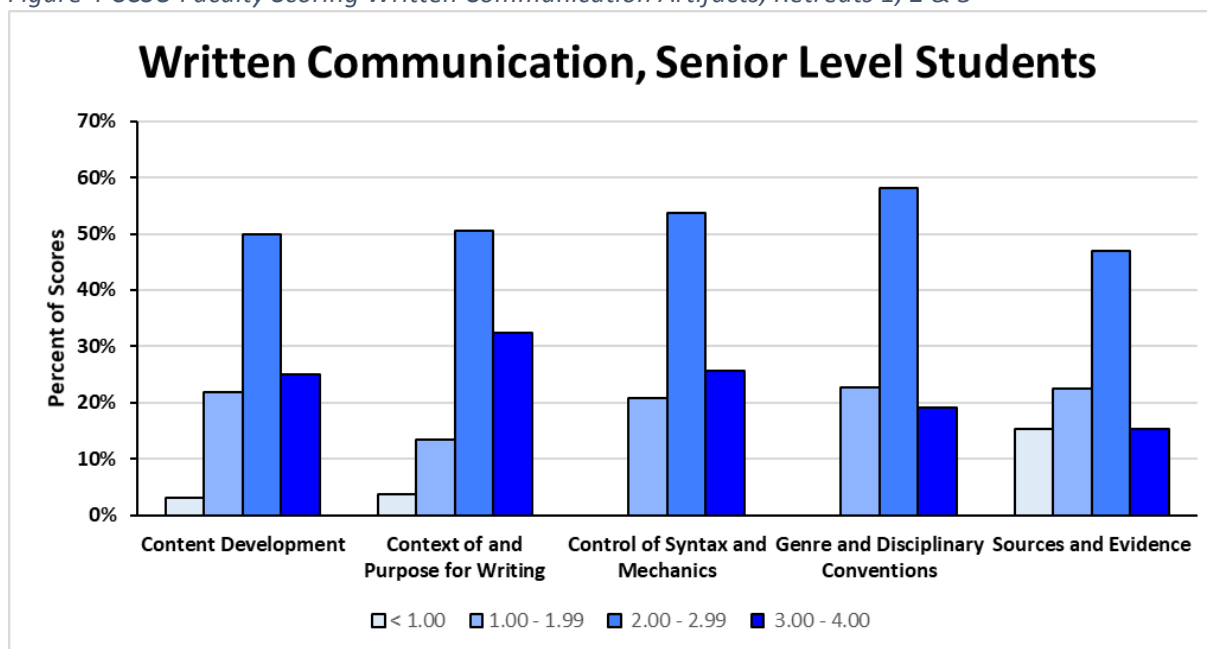
First-year to Senior Comparison

Although we focus on senior-level artifacts for the basis of national comparisons, we have collected and scored artifacts across class standing. As illustrated in Appendices A through C, seniors demonstrate higher proficiency than first-year students in nearly every dimension.

Key Strengths of the MSC-based Model

The MSC model has offered a viable, faculty-driven method for assessing CCSU's General Education Learning Outcomes/Objectives and measuring students' competencies. Key strengths include:

- **Faculty submit authentic and meaningful course-embedded assignments**. A two-pronged approach provides both internal and external validation of CCSU student learning.
- **Effective faculty-created and normed VALUE rubrics.**
  - Alignment with many of CCSU's General Education Learning Outcomes including:
    - Critical Thinking (LO#4)
    - Written Communication (LO#5)
    - Quantitative Reasoning (LO#6)
    - Information Literacy (LO#7)
    - Civic Engagement (LO#10)
  - Domain-general criteria and benchmarks to assess each learning outcome.
- **Efficient, sustainable process.** Retreats occurring once or twice per year shift time commitment from all departments to a small group of faculty. MSC-model is scalable and can expand to include additional learning outcomes and rubrics.
- **Reliable data.** We have achieved 85% consistency in scoring outcomes between MSC and CCSU faculty scoring the same artifact (see 2016 Faculty Senate report).
- **Information that fuels pedagogical change.** We have strong baseline data for Critical Thinking, Written Communication, and Quantitative Reasoning and are collecting baseline data for Information Literacy and Civic Engagement. These data help faculty determine where students

are growing the most and where faculty can direct future efforts. Further, individual faculty who submit artifacts can request their students' scores to obtain an objective picture of their students' strengths and areas for growth. This feedback is voluntary, confidential, and not contractually required for promotion, tenure, or renewal decisions.
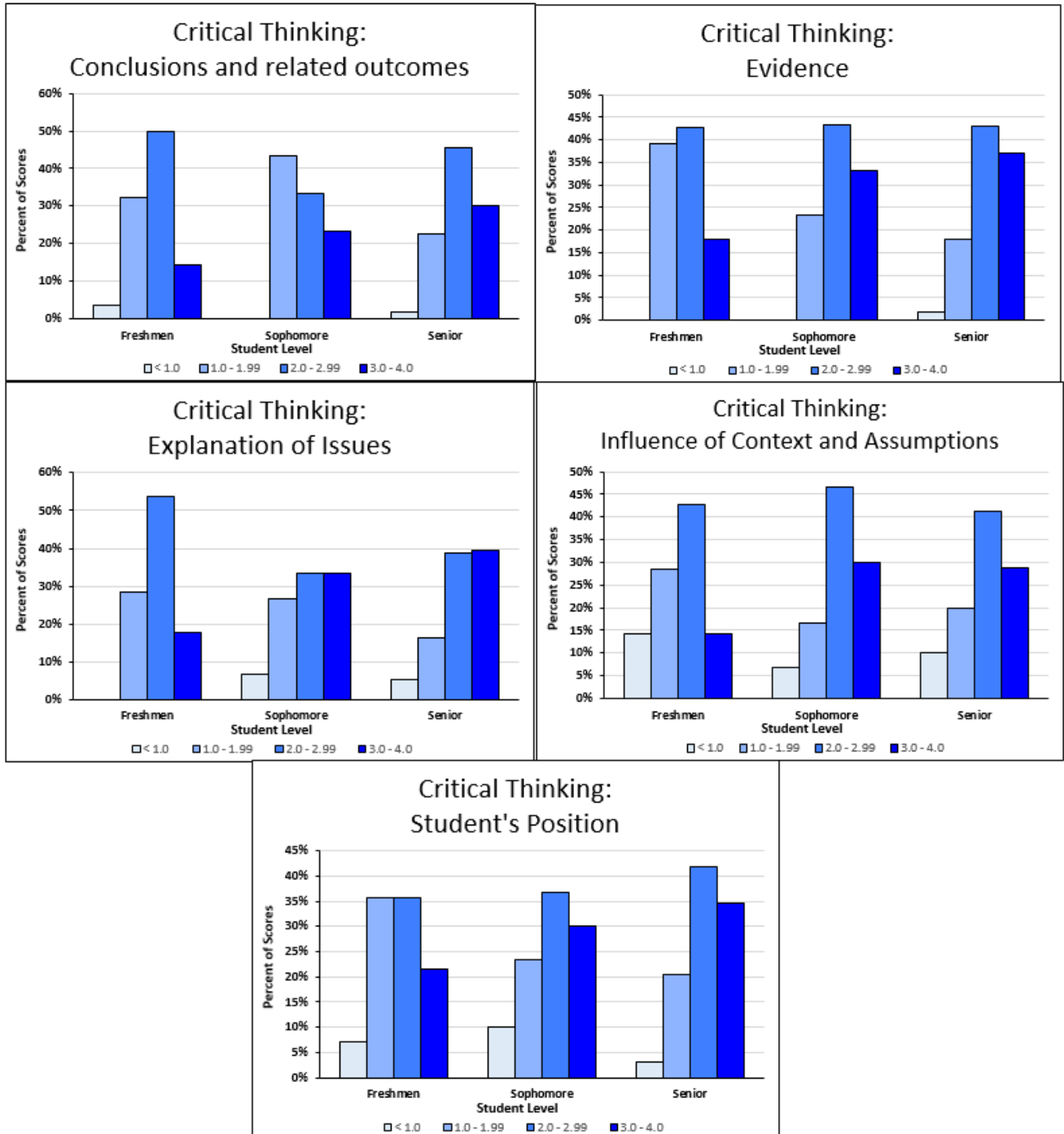
Conclusions

Upon reviewing the data and reflecting on the process over the past 3 years, the AAC endorses the MSC-model as the primary mechanism to assess CCSU's General Education Learning Outcomes. This faculty-driven model does more than simply fulfilling our compliance reporting obligations to NEASC; this model provides additional information that empowers faculty to make informed pedagogical changes to improve our students' learning. It also does not preclude the continuation of any individual departments' assessment of the GenEd courses in their disciplines for their own purposes. Indeed, the MSC data will provide valuable context for such assessments to, again, fuel the closing of the assessment loop.

Motion: To adopt the Academic Assessment Committee's in-house assessment model based on the Multistate Collaborative as the primary mechanism of assessing CCSU's General Education Learning Outcomes.

Critical Thinking scores for CCSU Faculty Scored Artifacts
Freshmen through Seniors, Retreats 1, 2 & 3

Critical Thinking: Conclusions and related outcomes

Critical Thinking: Evidence

Critical Thinking: Explanation of Issues

Critical Thinking: Influence of Context and Assumptions

Critical Thinking: Student's Position

Quantitative Reasoning scores for CCSU Faculty Scored Artifacts
Freshmen through Seniors, Retreats 1, 2 & 3
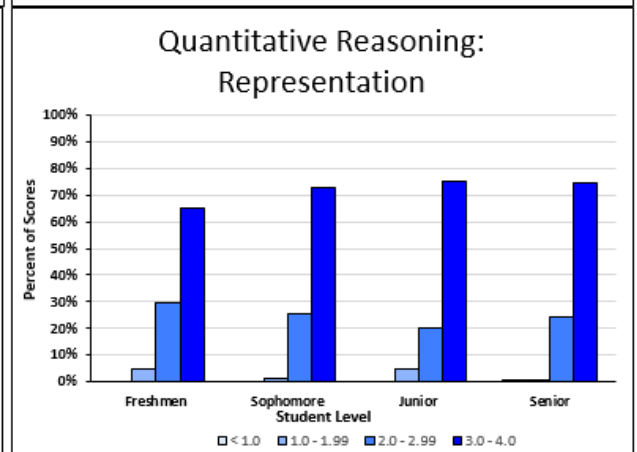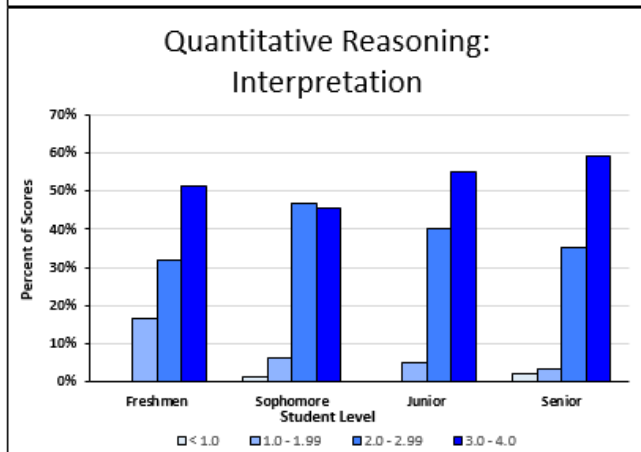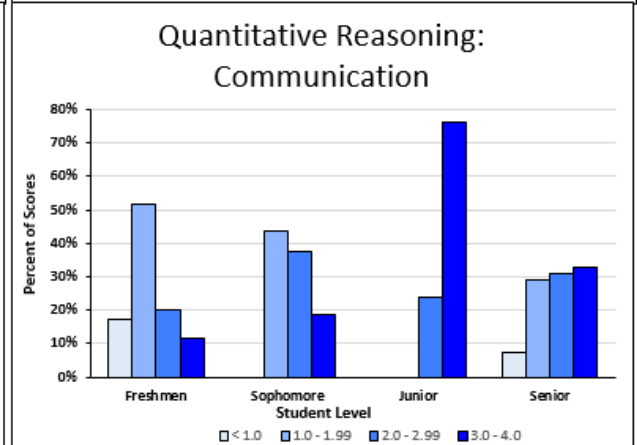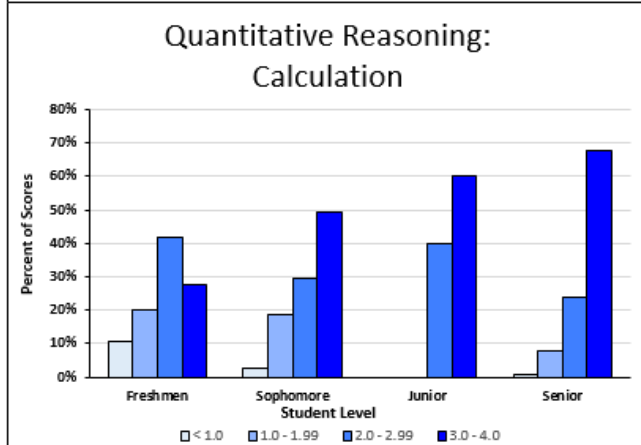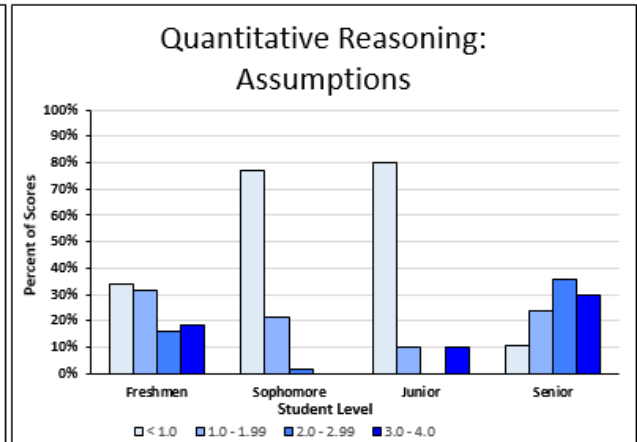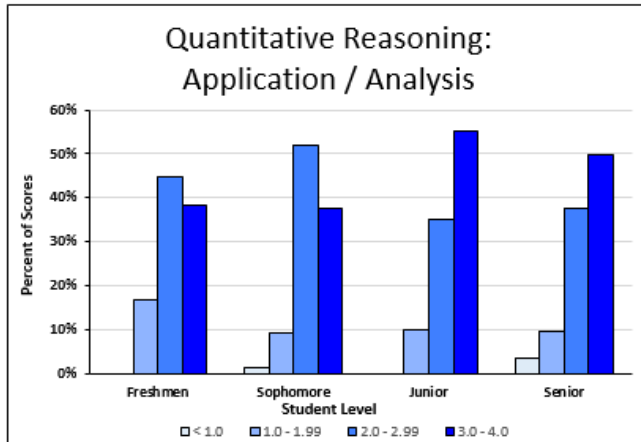
Written Communication scores for CCSU Faculty Scored Artifacts
Freshmen through Seniors, Retreats 1, 2 & 3

Written Communication: Content Development

Written Communication: Context of and Purpose for Writing

Written Communication: Control of Syntax and Mechanics

Written Communication: Genre and Disciplinary Conventions

Written Communication: Sources and Evidence
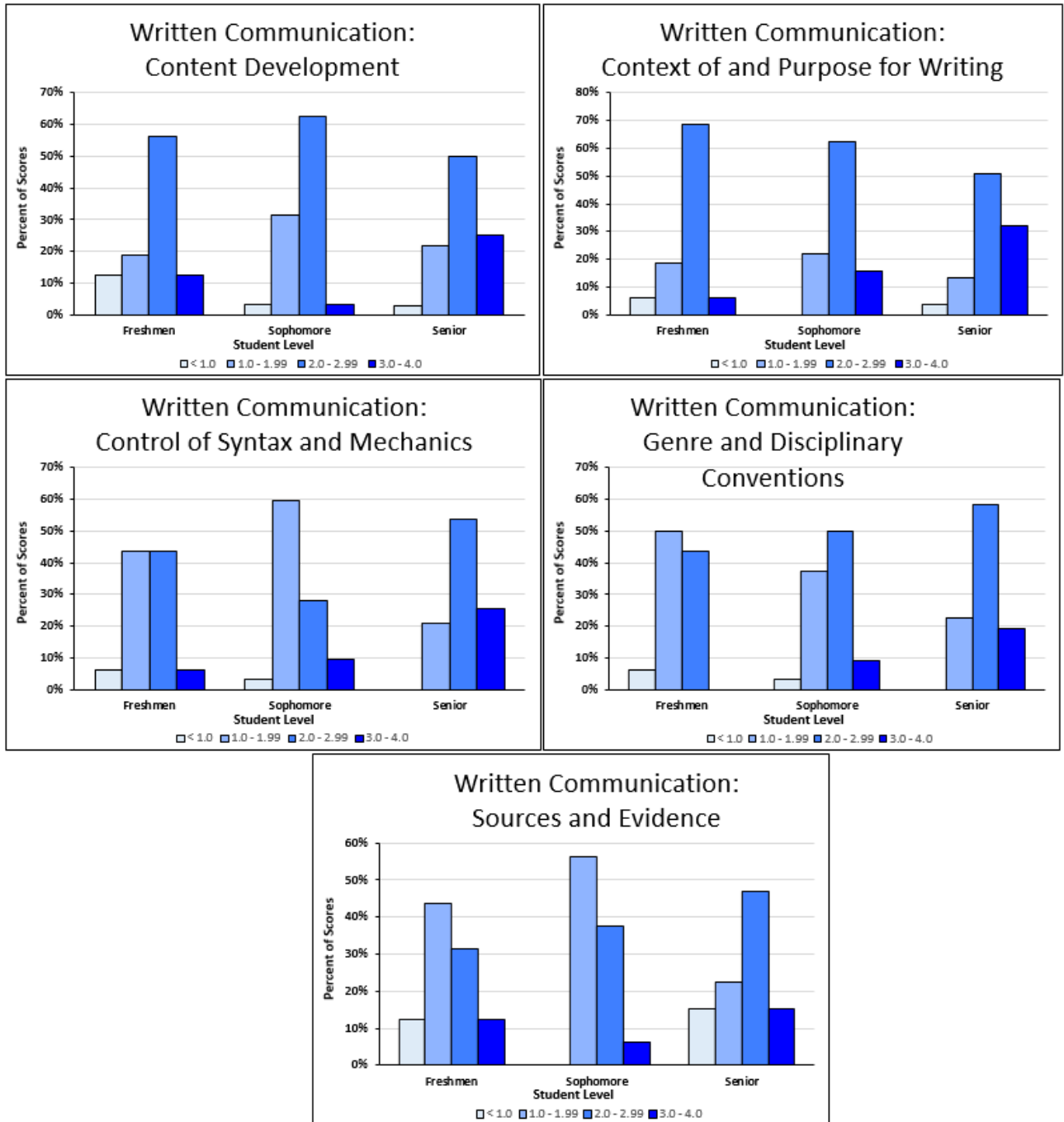
Appendix D:

CCSU Faculty Accomplishments and

National Recognition for General Education Assessment

Invited and Juried Conference Presentations

Kirby, Y., Mulrooney, J. & Mullaney, J. (2017, November). *Extending the Multi-State Collaborative Beyond the Initial Goals: Transforming Learning and Assessment*. New England Educational Assessment Network (NEEAN) 2017 Fall Forum. (Juried Conference Presentation)

> In this session, presenters demonstrated how to use the MSC as a model for on-campus assessment of general education learning outcomes in a 2-year and 4-year institution.

Broadus-Garcia, C. (2017, October). *Assessing General Learning Outcomes in the Art Classroom*. 2017 Connecticut Art Education Association Annual Conference, Cromwell, CT. (Juried Conference Presentation)

> This presentation showcased how general learning outcomes might be assessed in the art classroom. Using the American Association of College & Universities VALUE rubrics as a model, participants considered how student success can be measured in areas, such as Written and Oral Communication, Ethical Reasoning, Creative and Critical Thinking, Problem Solving, Civic Engagement, and Information Literacy.

Kirby, Y., Mulrooney, J. & Pease, S. (2017, July) *Advancing Outcomes Assessment on Your Campus by Using the Multi-State Collaborative as a Model*. American Association of State Colleges and Universities (AASCU) Academic Summer Meeting, Baltimore MD. (Invited Conference Presentation)

> In 2014-15 Central Connecticut State University (CCSU) began participating in the AAC&U/SHEEO Multi-State Collaborative (MSC), an assessment initiative focused on students who have completed three-quarters of their undergraduate education. The model is simple: identify existing course assignments that align with one of three VALUE rubrics (written communication, quantitative literacy and/or critical thinking); submit a sample of these assignments for scoring by participating faculty from outside the institution who had been trained to score using the rubrics; and use the resulting scores from the assessment of authentic student work for benchmarking and institutional improvement purposes. In addition to participating in this collaborative project, CCSU has implemented a localized version of the MSC model as a way to advance its general education assessment practices

Horton, Mel (2017, June). *Aqua: A Palette for Advancing Outcomes Assessment*. Taskstream-TK20 Interactive 2017 conference, "The Art of Assessment". Austin, TX. (Invited Presentation)

Session focused on how CCSU successfully generate usable assessment data for their Gen Ed program by institutionally applying the MSC model. Methods for collecting student work from course assignments and aligning these with specific learning outcomes was discussed. CCSU's use of Aqua to obtain meaningful data was demonstrated and the methods for norming faculty scorers was discussed.

Mulrooney, J., Kirby, Y., Mullaney, J., & McConnell, K. (2017, February). Extending the Multi-State Collaborative: Transforming Learning and Assessment. AAC&U General Education and Assessment Conference, "Design Thinking for Student Learning". Phoenix, AZ (Juried Presentation)

In this session, CCSU and the Community College of Rhode Island demonstrated how to use the MSC foundation as a model for on-campus assessment of general education learning outcomes and how participation in the MSC has helped faculty development focus on improving attainment of learning outcomes. The session illustrated the ease of adjusting existing assignments to better align with a VALUE Rubric. Session participants learned how internal and external data can be used as evidence for accreditation reporting; and how a 2-year and a 4-year campus built upon their participation in the MSC to assess general education undergraduate competencies. Specifically, the session helped participants build a toolkit of strategies around faculty development, assignment (re)design, and campus-based project management of complex, multifaceted, authentic approaches to assessment. Session facilitators provided candid feedback and lessons learned, including a discussion of how to leverage an external project to achieve internal aspirations for assessment and student learning.

Kirby, Y., Lovitt, C., Fitzgerald, G. (2016, December). *High Education Assessment Workshop: Your Mission and Educational Effectiveness*. NEASC 2016 Conference: Educational Effectiveness through Accreditation. Boston, MA.

With the heightened emphasis on quality—how do you demonstrate educational effectiveness that is aligned with your institution's mission? Through this interactive workshop, using the case-study approach, colleagues from small, middle and large size institutions addressed the challenges and opportunities in creating a culture of assessment and implementing assessment models of student success across the institution.

Kirby, Y. (2016, May). Generating Usable Data for General Education. Association of Institutional Research (AIR) Forum, New Orleans, LA.

This presentation highlighted Central Connecticut State University's ability to quickly generate usable assessment data for their General Education program by applying the model piloted in the Multi-State Collaborative to Advance Learning Outcomes

Assessment (MSC). In this session, Kirby presented an overview of the MSC and how it has empowered over 100 two- and four-year institutions to engage faculty in outcomes assessment. In addition, Kirby shared how CCSU was able to collect student work from existing course assignments aligned to specific learning outcomes and obtain usable assessment data within the month using Aqua by Taskstream.

Peagler, C., Aitken, R. & Kirby, Y. (2016, February). *Technology to Advance Faculty-Driven Assessment of Student Work*. American Association of Colleges & Universities (AAC&U) 2016 General Education Conference, New Orleans, LA.

As the technology partner for AAC&U's VALUE initiative, including the Multi-State Collaborative (MSC) to Advance Learning Outcomes Assessment, Taskstream provides technical guidance and infrastructure to support faculty-driven assessment of student learning based on student work samples from two- and four-year institutions in 16 states that are scored using VALUE rubrics. This session presented feedback from participants in the MSC pilot study and looked at user-friendly technology that enabled AAC&U and the MSC to execute its vision with few technological concerns. Participants learned how Taskstream extended the capabilities of the system to support similar initiatives within and across institutions and how Wright State University and Central Connecticut University use this technology to support general education assessment.

Mulrooney, J., Kirby, Y*.*, Broadus-Garcia, C., Frank, L., & Horton, M. (2015, November). *Assessment on a Dime: Creating a Sustainable and Faculty-Driven Process*. New England Educational Assessment Network (NEEAN) 2015 Fall Forum. (Juried Conference Presentation)

Presenters illustrated CCSU's approach for assessing academic programs and GenEd that has proven to be effective, evolving and cost neutral. The continuing evolution of the university's assessment practices were presented, including the results of improved reporting formats and projections for a more sustainable long-term process.

Online and Print Publications

American Association of Colleges & Universities. (2017). On Solid Ground: VALUE Report 2017, AAC&U, Washington, DC.

This report describes the VALUE rubric approach to assessing student learning showing it is possible to evaluate undergraduate students' achievement without relying on standardized tests and by using existing material. In On Solid Ground, AAC&U shares the results from the first two years of data collection for the VALUE (Valid Assessment of Learning in Undergraduate Education) initiative, a nationwide project that examines direct evidence of student learning. It represents the first attempt to reveal the landscape of student performance on key learning outcomes—Critical Thinking, Written Communication, and Quantitative Literacy—that educators, employers, and policy

makers agree are essential for student success in the workplace and in life. Quotes from CCSU faculty member, Dr. Jim Mulrooney, and OIRA Director, Yvonne Kirby, are highlighted on page 14 of this report.

Berrett, D. (2016, October 21). The Next Great Hope for Measuring Learning. *The Chronicle of Higher Education*, pp. A30-A33. Retrieved from http://www.chronicle.com/article/The-Next-Great-Hope-for/238075

Thirteen states are using a common tool to evaluate how well their students write, calculate, and think. This article which highlights CCSU's GenEd assessment model asks, "Can this effort paint an accurate portrait of academic quality?"

Peagler, C. (2016, March 17). *How to Get Usable Data for General Education* [Web log post]. Retrieved from https://www1.taskstream.com/blog/how-to-get-usable-data-for-general-education/

Peagler, C. (2016, March 3). *Good Stuff to Keep from AAC&U Gen Ed 2016* [Web log post]. Retrieved from https://www1.taskstream.com/blog/good-stuff-to-keep-gstk-from-aacu-gen-ed-2016/

Webinar Presentations

Rhodes, T., Broadus-Garcia, C., Hart, D. A., & Hartlaub, S. (2017, April 17). *Beyond the "A" Word: Assessment that Empowers Faculty to take Risks with Pedagogical Innovation* [Invited Audio Webinar]. Retrieved from http://www.aacu.org/webinar/assessment-that-empowers

This webinar, presented by AAC&U, provided practical techniques, strategies, and used cases that demonstrated an approach to assessing student learning that promotes innovation and enables creative practices for marrying teaching and learning with authentic assessment. Panelists provided unique perspectives on how to engage faculty and students in the assessment process in meaningful ways, and outlined their experiences across a wide range of institution types, learning environments, and disciplines. The webinar highlighted On Solid Ground, which outlines the first two years of data collection for AAC&U's VALUE (Valid Assessment of Learning in Undergraduate Education) initiative, a nationwide project that examines direct evidence of student learning. The VALUE initiative presents a unique approach for colleges and universities that – while methodologically, philosophically, and pedagogically complex – situates defining and measuring the quality of student learning within the learner-faculty relationship, at the course level, without sacrificing questions of rigor. Panelists led a robust discussion of how the VALUE initiative and resources can empower and support faculty to embrace imperfection and take risks by experimenting with pedagogical innovations on their campuses.

Doore, B., Mulrooney, J., & McConnell, K. (2016, June). *Making Learning Outcomes Data Meaningful at the Local Level: Examples from the MSC/VALUE Initiative*. [Invited Audio Webinar]. Retrieved from https://www1.taskstream.com/webinars/making-learning-outcomes-data-meaningful-at-the-local-level-examples-from-the-mscvalue-initiative/

> This webinar was the fifth in a MSC/VALUE series presented by AAC&U, SHEEO, and Taskstream and focused on how participating campuses are deriving value from the learning outcomes data generated through this multi-state initiative for their institutions. The webinar (a) showcased strategies for making the data meaningful at the local level; (b) highlighted resources developed by AAC&U and participating campuses; (c) discussed plans for the development of data "toolkits" designed to enhance the utility and meaningfulness of the project for individual campuses.

Switzer, D., Coots, A., Mulrooney, J., & Rhodes, T. (2016, April). *Faculty Perspectives: Selecting Assignments to Assess Learning Outcomes Using Authentic Student Work* [Audio Webinar]. Retrieved from https://www.aacu.org/node/16663

> This webinar was the fifth in a MSC/VALUE series presented by AAC&U, SHEEO, and Taskstream and focused on the MSC – what worked and what didn't when it came to identifying assignments and collecting student work samples at their institutions. The presenters shared insights on how courses and assignments were identified, along with examples of assignments that worked well, and how the lessons they learned through their participation in the MSC apply to similar assessment initiatives on individual campuses.