

A woman with short dark hair and glasses, wearing a pink button-down shirt, is pointing with a white marker at a whiteboard. The whiteboard has handwritten notes in blue and red ink. The notes include "New Insights", "They aren't going to go to that much trouble", "family has huge", "in whether they", "not", "there were mul", "condo that for", "conveyer belt", and "to have". On the right side of the whiteboard, there are red handwritten notes: "C", "Vied", "C to do", "Recy".

ON SOLID / VALUE GROUND REPORT 2017

by Kathyryne Drezek McConnell & Terrel L. Rhodes



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On Solid Ground

A Preliminary Look at the Quality of Student Learning in the United States

With *On Solid Ground*, the Association of American Colleges and Universities (AAC&U) introduces a nationwide effort to examine direct evidence of student learning across higher educational institutions in the United States. This report represents the first attempt to reveal a landscape of student learning on key learning outcomes—critical thinking, written communication, and quantitative literacy—that both educators and employers agree are essential for student success in the workplace and in life. This effort—the Valid Assessment of Learning in Undergraduate Education (VALUE) initiative—is the result of several years of collaboration with the State Higher Education Executive Officers association (SHEEO) and the Multi-State Collaborative to Advance Quality Student Learning (MSC), the Minnesota Collaborative, the Great Lakes Colleges Association (GLCA) Collaborative, and nearly one hundred public and private, two- and four-year colleges and universities. AAC&U owes a debt of gratitude to all of these institutions that represent the diversity of American higher education: large and small; urban and rural; comprehensive, research extensive, and liberal arts; religious and secular; and open access and selective. At its core, the VALUE initiative is a collaboration among individual faculty, academic and student affairs administrators, state higher education executive offices and policy makers, assessment experts, and national and regional higher education associations.

Beyond the broadly inclusive collaboration described above, the VALUE initiative breaks new ground by basing its assessment of student learning achievement on the actual work that students produce in response to assignments from the formal instructional curriculum in whatever institution(s) the student attended. Rather than a standardized test divorced from the curriculum, VALUE draws evidence from the actual courses and teachers at an institution, assessing the learning artifacts (papers and assignments) produced by students to demonstrate their achievement of specific learning outcomes. Finally, the VALUE initiative utilizes the expertise of trained higher education faculty and other educators from the participating institutions to judge the quality of the student work in relation to widely accepted standards for each of the learning outcomes as captured through the faculty-developed VALUE rubrics.

What follows is a preliminary picture of the landscape of learning in higher education in the U.S. via an exploration of the results for the initial VALUE assessment demonstration year (2015-2016) for the MSC, as well as the broader results from the VALUE initiative (2014-2016) to date. The results must be viewed as preliminary because they are not representative of all higher education institutions, all states, all students, or all learning outcomes. However, this set of nationwide results does represent the first direct evidence of student learning across twelve state systems, ninety-two institutions, and samples of students who had completed 75 percent or more of the requirements for receipt of an associate or baccalaureate degree.

The Results Indicate that Learning Among College Students Is on Solid Ground. Key Findings Include:

- **Written Communication.** The strongest student performance was in written communication. The results support the effect that institutional efforts focused on improving student writing over the last few decades seem to have had on writing proficiency, although the effective use of evidence to support written arguments in various contexts or genres continues to be a challenge.
- **Critical Thinking.** Students demonstrate strength in explaining issues and presenting evidence related to the issues. However, students have greater difficulty in drawing conclusions or placing the issue in a meaningful context (i.e., making sense out of or explaining the importance of the issue studied). Again, the curricular focus on developing critical thinking skills in students through their major programs, which faculty claim is a priority, is reflected in the higher levels of performance among students in upper division course work in the majors.
- **Quantitative Literacy.** Findings suggest that students demonstrate strengths in calculation and interpretation in quantitative literacy, while showing weaker performance levels in assumptions and application of their knowledge. The results suggest that more emphasis has been placed on the mechanics of quantitative manipulations and less attention on the “why” of using quantitative approaches or when and where to use various calculations.
- **Achievement Levels.** Students at four-year institutions who have completed 90 credit hours show higher average achievement levels than students at two-year institutions who have completed 45 credit hours, suggesting that the continued focus on core essential learning outcomes (e.g., writing across the curriculum, upper-division writing-intensive courses, or upper-division courses that require thinking critically within the major) supports enhanced levels of higher order achievement across the three learning outcomes.
- **Assignments.** Early results point in several ways to the importance of the assignments in students’ abilities to demonstrate higher, second-order quality work. In short, what institutions ask their students to do makes a difference for the quality of the learning.
- **Validity.** Scorers strongly reported that the VALUE rubric assessment tools covered the core dimensions of learning in each of the learning outcomes and that the rubrics could be used for judging quality of learning in different courses in different fields by

faculty from different departments. The rubrics were valid measures of the learning being assessed.

- **Reliability.** The question is not, “Are the VALUE rubrics reliable tools?” Given the philosophical, pedagogical, and methodological complexity of the VALUE approach—one that inextricably links faculty expert scores, rubrics, and authentic assignments—the question is whether agreement among scorers is possible. Here too VALUE is on solid ground. Weighted percent agreement ranges from the low end of 84 percent on some dimensions of Quantitative Literacy to 94 percent on some dimensions of Written Communication. Inter-rater reliability tests range from .50 to .62 across Quantitative Literacy, from .64 to .70 across Critical Thinking, and from .60 to .84 across Written Communication, representing moderate to strong agreement.

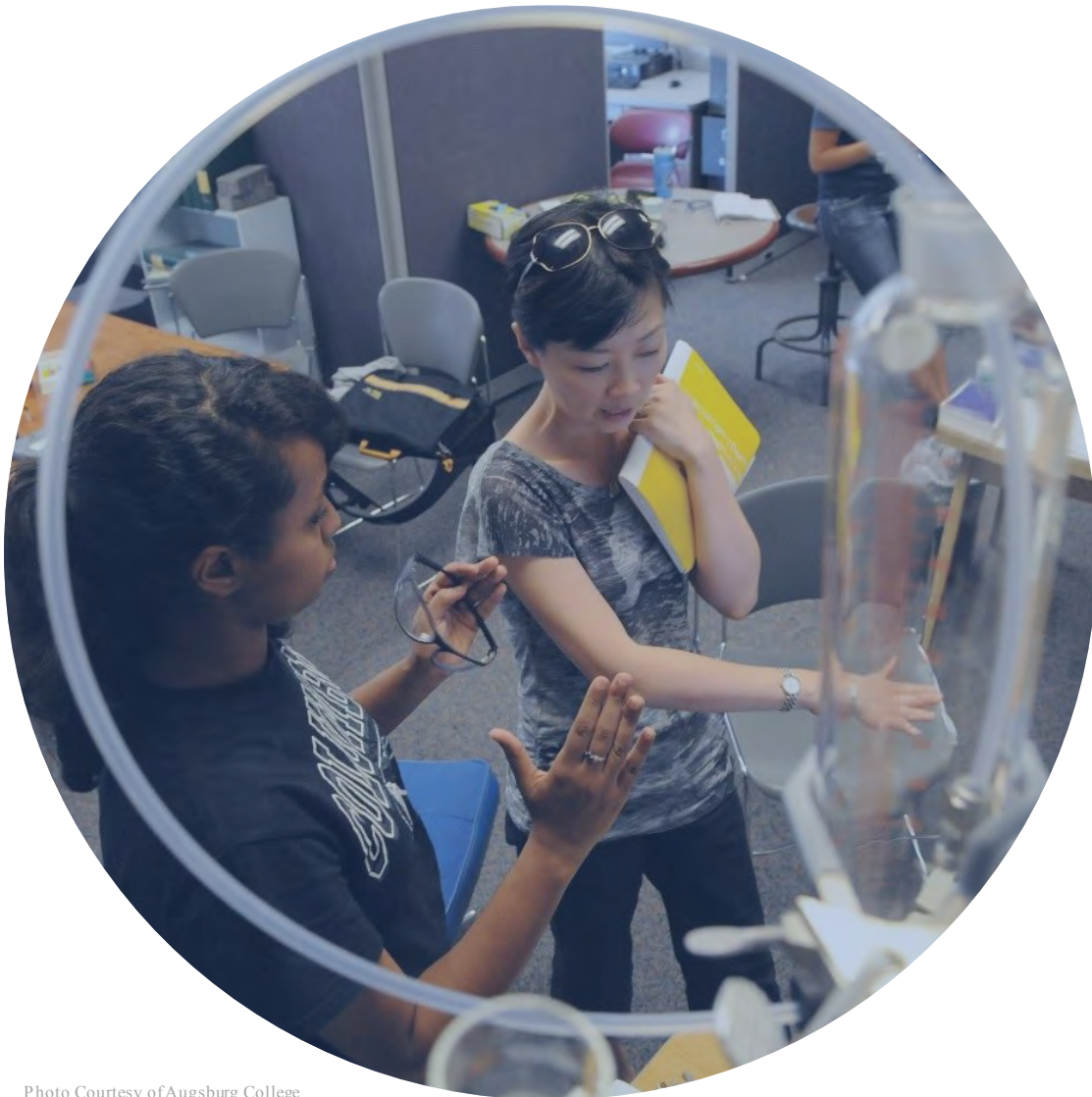


Photo Courtesy of Augsburg College

Why Should Anyone Care About These Findings?

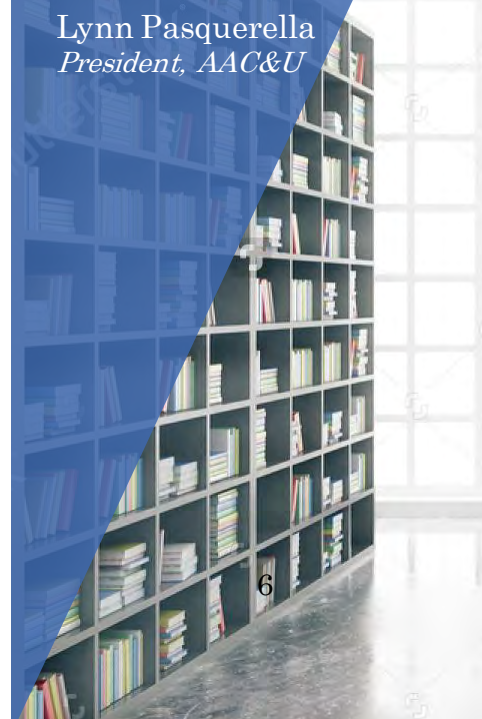
The VALUE approach—as enacted by the MSC, the Minnesota Collaborative, and the GLCA Collaborative—is both evidence-based and evidence-generating. It is a methodologically sound, authentic, and creative response to the need for direct evidence of the quality of student learning across critical skills and abilities associated with success in life and work. At the same time, VALUE provides information that can inform decisions by local, state, and federal policy makers for improvement. Simultaneously, the findings point to actions that can be taken by those directly involved in teaching and learning on a day-to-day basis—faculty, other educators, and students—to effectively focus attention to achieve even better results.

This report is the beginning of a long-term effort to forefront the work institutions are doing to demonstrate student achievement across learning outcomes that are essential to students' long-term success regardless of major, program of study, or institution attended. Further, the VALUE initiative draws upon the expertise, experience and judgment of those who are most closely connected to students' formal learning—the faculty and other educators involved in the curriculum and cocurriculum. By focusing on the work students produce and the assignments faculty develop, VALUE is turning a spotlight on the quality of students' abilities to apply, make sense of, and contribute their knowledge by focusing on what they do well and what they can do to further enhance their learning. What follows provides a fuller picture of the findings and their meaning.



Demonstrating quality and the achievement of learning outcomes is more important than ever. We are proud to be advancing new approaches to meaningful and effective assessment as a means of delivering on the promise of American higher education.

Lynn Pasquerella
President, AAC&U



What is VALUE?

VALUE (Valid Assessment of Learning in Undergraduate Education) is a campus-based assessment initiative sponsored by AAC&U as part of its Liberal Education and America's Promise (LEAP) initiative. [VALUE rubrics](#) provide needed tools to assess students' authentic work, produced across diverse learning pathways and institutions, to determine whether and how well students are meeting graduation-level achievement in learning outcomes that both employers and faculty consider essential.

In 2008, teams of faculty and other educational professionals from institutions across the country—two- and four-year, private and public, research and liberal arts, large and small—began to develop rubrics that aligned with the sixteen [Essential Learning Outcomes](#) that all students need for success in work, citizenship, and life, as well as the [Degree Qualifications Profile \(DQP\)](#) proficiencies for achievement across the associate and baccalaureate levels on hundreds of college and university campuses. Each team of faculty examined existing rubrics that had been developed by individual institutions, reviewed reports and research on components of learning for each outcome, and drew upon their own experience and professional knowledge. The teams took the list of dimensions that emerged from their research and pared it to a set of five to six dimensions for each outcome where there was the most widespread consensus that the dimension was core to the outcome and important for the quality of the learning. The rubrics were tested at nearly 150 institutions by faculty on those campuses in courses they taught, assignments they gave, and work students submitted. Feedback on the rubrics was incorporated into two to three rounds of revisions through this refining and retesting process.

The resulting VALUE rubrics include Inquiry and Analysis, Critical Thinking, Creative Thinking, Written Communication, Oral Communication, Quantitative Literacy, Information Literacy, Reading, Teamwork, Problem Solving, Civic Knowledge and Engagement (Local and Global), Intercultural Knowledge and Competence, Ethical Reasoning and Action, Global Learning, Foundations and Skills for Lifelong Learning, and Integrative Learning.

Since their release in the fall of 2009, the rubrics have become a widely referenced and utilized form of assessment on campuses across the United States and internationally. As of December 2015, the rubrics have been downloaded more than 42,000 times by individuals representing more than 4,200 unique organizations, including more than 2,800 colleges and universities. The VALUE rubrics have also been approved for use in meeting national standards for accountability established by the Voluntary System of Accountability (VSA).

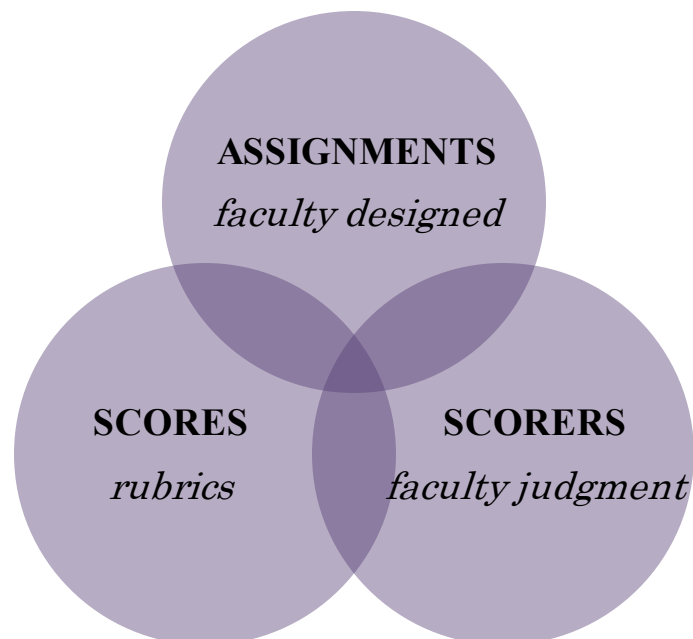
Figure 1
The Rubrics Have Been Accessed By:



What Is the VALUE Approach to Assessment?

VALUE is grounded in research and best practices derived from the learning sciences—including educational psychology, cognitive psychology, student development theory, and instructional design—and generates robust data that lends itself to both qualitative and quantitative methodological consideration. Much more than a collection of rubrics, the VALUE process is a triad comprised of (1) the rubrics that describe the learning outcomes on which student work will be scored, (2) the faculty trained as scorers who use their expert judgment to evaluate student work products and assign a score based on the rubric dimensions and performance levels, and (3) the student work products generated in response to a faculty-designed assignment from an actual college course (figure 2).

Figure 2
VALUE Approach to Assessing Student Learning





There is a hunger among policy leaders at the state level to make sure that our students are actually learning what they need in order to succeed in life and work. However, that's motivated, I think, because of what employers are saying, but part of it is motivated by a more collective view of what is right for society in a given state.

George Pernsteiner
President,
SHEEO

What Does It Mean to Evaluate Student Work Using a VALUE Rubric?

The VALUE rubrics help evaluators assess the level of proficiency represented in a student work product (paper, performance, community service project, etc.).

Each rubric addresses five to six key criteria or dimensions for a learning outcome (e.g., Quantitative Literacy). For each dimension of the outcome, the evaluator chooses from among the four descriptors (Capstone, the highest level; two Milestone levels; and Benchmark level) the level of proficiency the student's piece of work demonstrates. Scorers also assign a "zero" score if the work product does not show evidence of any of the four levels of proficiency for the dimension in question.

The VALUE rubrics were developed to assess students' most motivated, best work done in their curricula rather than take a snapshot of a sample of student volunteers' performance at a particular time outside of the regular curriculum. Because such standardized tests are almost always taken by volunteers and carry no consequences, research shows that students are not motivated to do their best work on them.¹ Moreover, good psychometric practice rejects using any single measure as a proxy for either individual student proficiency or for institutional evaluation. Information from a particular test, because it is disconnected from specific curricula, provides little help to students or faculty trying to isolate specific areas in which to focus their own efforts to achieve higher levels of mastery. Most other learning assessment instruments do not publicly share the underlying criteria or basis of their measurement. In contrast, VALUE stresses transparency of shared expectations, definitions, and dimensions of learning represented by scores the work receives (see figure 3). VALUE rubrics answer the need for measuring the development and application over time of the essential learning proficiencies that college graduates need in order to be productive in work and in citizenship. By evaluating student work through the VALUE process, institutions are able to get a fuller picture of how much a student's knowledge and skills have evolved on the full panoply of outcomes that are promised and—importantly—that students, parents, and policy makers expect.

¹ Trudy W. Banta and Gary R. Pike, "Making the Case Against—One More Time," in *The Seven Red Herrings About Standardized Assessments in Higher Education*, Occasional Paper 15 (Champaign, IL: National Institute for Learning Outcomes Assessment, September 2012), 177–94.

Table 1
VALUE Initiative Timeline

Date	Activity
January 2008	VALUE rubric development teams begin work on rubrics, ePortfolio experiments
May 2009	National Reliability Panel
September 2009	VALUE rubrics released for public use
Spring 2010	Disciplinary Reliability Panel
Fall 2011	VALUE/Multi-State Collaborative (MSC) partnership begins between AAC&U and State Higher Education Executive Officers (SHEEO) association
December 2013	The MSC officially begins VALUE work
Spring 2014	The Minnesota Collaborative (5 private four-year, 3 public four-year, and 2 public two-year institutions) joins VALUE
August 2014	Great Lakes Colleges Association (GLCA) Collaborative joins VALUE
September 2014– August 2015	Pilot Year for student artifact collection and scoring
September 2015– August 2016	Demonstration Year for student artifact collection and scoring
September 2016– August 2017	Refinement Year for student artifact collection and scoring



Photo Courtesy of Greenfield Community College

Figure 3
Sample VALUE Rubric: Critical Thinking

CRITICAL THINKING VALUE RUBRIC

for more information, please contact valuel@aacu.org



The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, not for grading. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can be shared nationally through a common dialog and understanding of student success.

Definition

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

Framing Language

This rubric is designed to be transdisciplinary, reflecting the recognition that success in all disciplines requires habits of inquiry and analysis that share common attributes. Further, research suggests that successful critical thinkers from all disciplines increasingly need to be able to apply those habits in various and changing situations encountered in all walks of life.

This rubric is designed for use with many different types of assignments and the suggestions here are not an exhaustive list of possibilities. Critical thinking can be demonstrated in assignments that require students to complete analyses of text, data, or issues. Assignments that cut across presentation mode might be especially useful in some fields. If insight into the process components of critical thinking (e.g., how information sources were evaluated regardless of whether they were included in the product) is important, assignments focused on student reflection might be especially illuminating.

Glossary

The definitions that follow were developed to clarify terms and concepts used in this rubric only.

- **Ambiguity:** Information that may be interpreted in more than one way.
- **Assumptions:** Ideas, conditions, or beliefs (often implicit or unstated) that are "taken for granted or accepted as true without proof." (quoted from www.dictionary.reference.com/browse/assumptions)
- **Context:** The historical, ethical, political, cultural, environmental, or circumstantial settings or conditions that influence and complicate the consideration of any issues, ideas, artifacts, and events.
- **Literal meaning:** Interpretation of information exactly as stated. For example, "she was green with envy" would be interpreted to mean that her skin was green.
- **Metaphor:** Information that is (intended to be) interpreted in a non-literal way. For example, "she was green with envy" is intended to convey an intensity of emotion, not a skin color.

CRITICAL THINKING VALUE RUBRIC

for more information, please contact valuel@aacu.org



Definition

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

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	Milestones 3 2		Benchmark 1
Explanation of issues	Issue/ problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.	Issue/ problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions.	Issue/ problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/ or backgrounds unknown.	Issue/ problem to be considered critically is stated without clarification or description.
Evidence <i>Selecting and using information to investigate a point of view or conclusion</i>	Information is taken from source(s) with enough interpretation/ evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Information is taken from source(s) with enough interpretation/ evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.	Information is taken from source(s) with some interpretation/ evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.	Information is taken from source(s) without any interpretation/ evaluation. Viewpoints of experts are taken as fact, without question.
Influence of context and assumptions	Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.	Identifies own and others' assumptions and several relevant contexts when presenting a position.	Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.
Student's position (perspective, thesis/ hypothesis)	Specific position (perspective, thesis/ hypothesis) is imaginative, taking into account the complexities of an issue. Limits of position (perspective, thesis/ hypothesis) are acknowledged. Others' points of view are synthesized within position (perspective, thesis/ hypothesis).	Specific position (perspective, thesis/ hypothesis) takes into account the complexities of an issue. Others' points of view are acknowledged within position (perspective, thesis/ hypothesis).	Specific position (perspective, thesis/ hypothesis) acknowledges different sides of an issue.	Specific position (perspective, thesis/ hypothesis) is stated, but is simplistic and obvious.
Conclusions and related outcomes (implications and consequences)	Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order.	Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly.	Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.	Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.

Taking Risks with Pedagogical Innovation

The VALUE Initiative and Multi-State, GLCA, and Minnesota Collaboratives in Action

Since 2014, the VALUE initiative has moved beyond local, individual campus implementation to test its applicability as a framework for intra- and interinstitutional, intersector (e.g., two-year, four-year public, four-year private), and interstate assessments of student learning. To date, through three related consortia—the now thirteen-state MSC (Virginia joined in 2016), the ten-institution Minnesota Collaborative, and the nine private four-year colleges in the GLCA Collaborative—ninety-two institutions have submitted 21,189 student work products (representing 3,051 unique faculty-designed assignments) for assessment by 288 faculty trained to score the student work using one of six VALUE rubrics, with the most popular outcomes rubrics being Critical Thinking, Quantitative Literacy, and Written Communication.

The MSC is based on the “Vision Project,” which started in Massachusetts. There, a broadly collaborative, multicampus leadership group worked to conceptualize a model for state system learning outcomes assessment based on the LEAP Essential Learning Outcomes and using VALUE rubrics.

Massachusetts leaders wanted to see if other states would join the effort to assess learning outcomes and voluntarily share results, and they reached out to State Higher Education Executive Officers (SHEEO) to help bring other states into the MSC work. These leaders recognized that state (and national) higher education policy should be informed by and rest upon solid evidence of the quality of student learning in postsecondary education. AAC&U, SHEEO, and the states and institutions participating in the MSC believe that the public, policy leaders, legislators, and employers deserve to know whether students receiving credentials from higher education institutions can demonstrate the expected and necessary levels of proficiency on a full range of learning outcomes central to life and workplace success.

The statewide use of the VALUE rubrics provided through the MSC is in part intended to deter mandated standardized tests through more rigorous demonstration of what students are learning in college. The aggregated rubric scores provide normed evidence of the quality of student learning across state institutions for external stakeholders while also giving faculty helpful information for improving teaching and student learning.



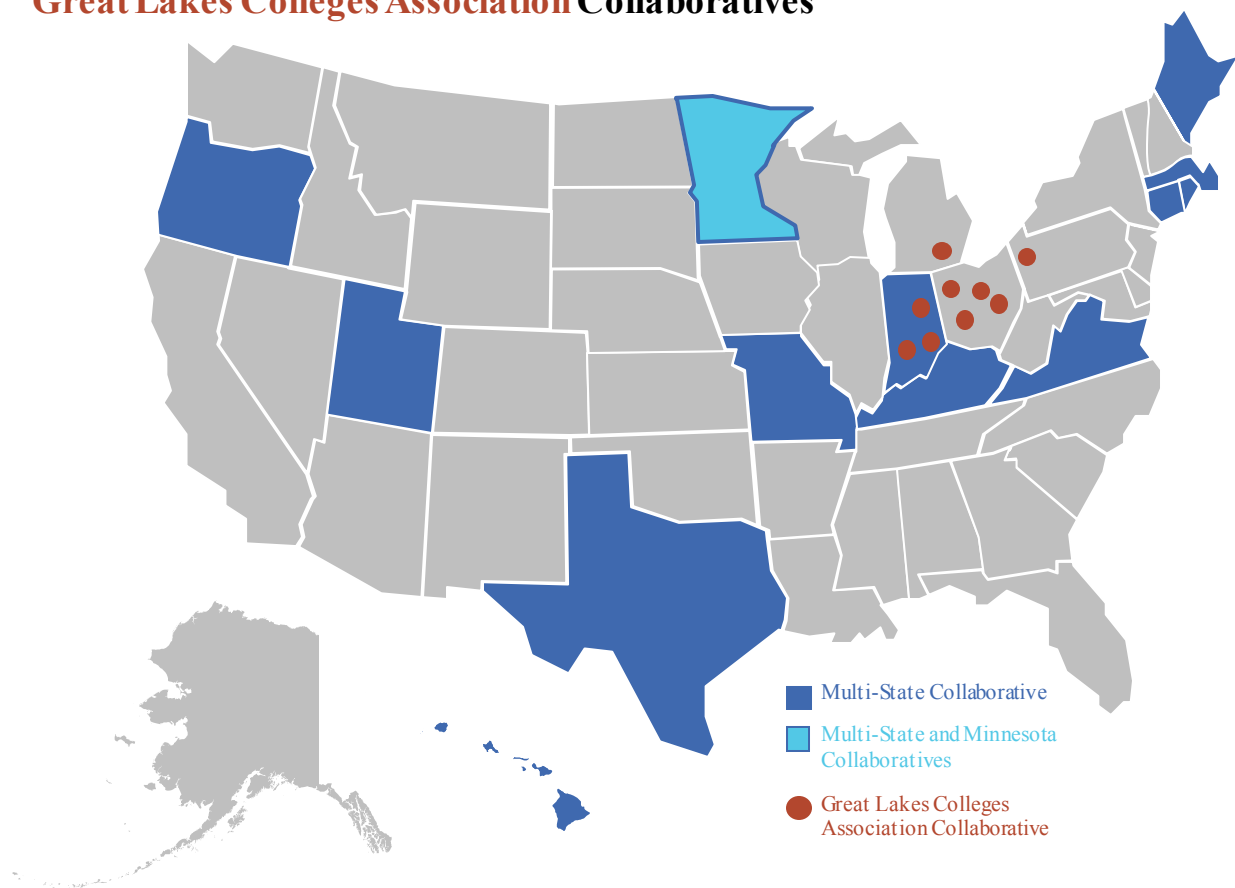
92 institutions submitted
21,189 student work
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rubrics.

Many state-level leaders acknowledge that standardized quantitative tests are not very useful for state policy purposes because they are difficult to interpret for lay audiences and do not lead to clear policy choices and decisions. Institutional leaders often argue that state-mandated standardized tests are of little help for their efforts to use learning outcomes assessment in a formative way to improve the quality of student learning.

In other words, every student, regardless of the specific focus of a student's studies, academic major, or type of institution attended, should be able to authentically demonstrate what they have learned. Together with the MSC and the Minnesota and GLCA Collaboratives, the VALUE initiative landscape now spans the entire country from Hawaii to Maine and from Minnesota to Texas.

Figure 4

VALUE Project map: The Multi-State, Minnesota, and Great Lakes Colleges Association Collaboratives



VALUE Embraces Imperfection as Part of the Learning Process

The VALUE initiative is not about reductionism, compliance, or quick fixes. VALUE builds on the process of learning that students naturally experience as they grow and develop throughout their lives. Learning is a change—in knowledge, behavior, belief, or attitude—that unfolds over time. Learning is often messy, and typically involves more failure or disappointment than perfect achievement of a goal.² The process of learning fundamentally involves embracing imperfection and recognizing that no faculty solely control their classrooms or learning environments nor can plan perfectly a priori how and to what degree the learning will occur. Rather, learning is something for which educators need to create space—space in which students and faculty develop and deepen their understanding by taking risks and experimenting, because “How much better for learning is it when students submit an imperfect draft for review and then work on improving it together (with) faculty and peers, versus working directly on a final draft they try to perfect on their own?”³ The work assessed through the VALUE initiative was not produced with an expectation of perfection, but rather as examples of work being produced by students in response to the typical assignments given to them through their courses and cocurriculum across the multitude of majors and programs of study the students were pursuing. Each assignment given was selected because the faculty member indicated that a specific learning outcome should be addressed, at least partially, in the student work.

The student work was evaluated by trained faculty and other educators applying a VALUE rubric. The rubrics build on students’ demonstration of critical skills and abilities on the five to six dimensions of the relevant outcome, not on what students fail to do. The five to six dimensions of the rubrics underlie students’ ability to demonstrate their proficiency regardless of the specific course content.

² S.A. Ambrose, M.W. Bridges, M. DePietro, M.C. Lovett, M.K. Norman, and R.E. Mayer, *How Learning Works: Seven Research-Based Principles for Smart Teaching* (San Francisco, CA: John Wiley and Sons, 2008).

³ Maha Bali, Autumm Caines, and Rebecca J. Hogue, “Pedagogy of Imperfection,” *ProfHacker* (blog), *Chronicle of Higher Education*, January 13, 2017.



The MSC opened our eyes to alternative models for assessing general education. The benefit of this model is in its simplicity—it uses actual graded assignments from courses that now double as artifacts for in-house assessment using a consistent rubric across campus.

Yvonne Kirby
*Director of Institutional
Research and Assessment
Central Connecticut State
University*

James Mulrooney
*Professor and Associate
Dean, School of
Engineering, Science,
and Technology
Central
Connecticut
State
University*



Participation in the VALUE project has productively informed our Assessment Plan and has given me, as the Campus Lead and the Chair of the Assessment Committee, the opportunity to introduce faculty to the concept of rubrics and to consider how intentionally designed rubrics can serve multiple goals: as a means to think about institutional, programmatic, and course-based assessment (as contrasted with evaluation) and scaffolding of courses, as a structure to develop transparent and relevant learning outcomes, and as a vehicle to develop assignments and evaluate the suitability of those assignments for enabling students to achieve the learning outcomes. On our campus, in particular, we have used the VALUE rubrics as models to launch discussions as we ask faculty to work toward articulating a shared understanding of what it means to be teaching courses that fulfill our distribution requirements...These discussions have really changed the tenor of assessment from one of "policing" faculty teaching practices to enriching conversations about teaching and learning and how assessment can inform those conversations.

D. Alexis Hart, Ph.D.
Associate Professor,
Department of English,
Director of Writing
Allegheny College

The performance levels of the VALUE rubric articulate the necessary arc of progress and development in learning from first-order expectations for learning (e.g., memorization and description) to second-order expectations for learning (e.g., synthesis and evaluation).⁴ These performance levels roughly align with the progression described by Bloom's taxonomy, moving from knowing and comprehending to applying, analyzing, synthesizing, and creating.

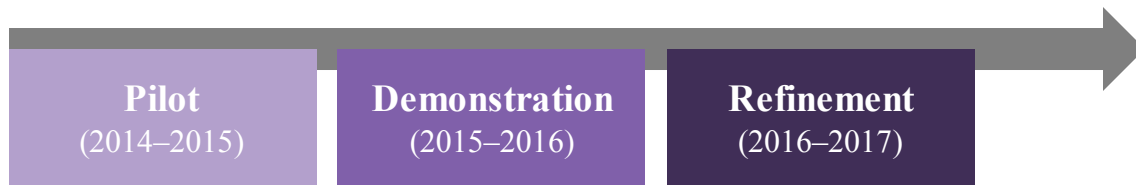
VALUE initiative scorers engage in two-day calibration/norming sessions that acquaint scorers with the content and purpose of the specific rubric(s) the scorer will utilize. Most of the time is spent with their colleague scorers in practicing the application of the rubric to examples of student work in order to explore the ways in which, depending on the student's class assignment or disciplinary lens, the dimensions of the learning contained in the rubric are manifested in the work being assessed. The process reveals three important factors: (1) scorers from diverse backgrounds working with assignments from a wide range of classes can reach high levels of agreement on the quality of the work; (2) assessing for the core, underlying dimensions of each outcome is not grading student work; and (3) the VALUE rubrics are not a "teach-to-the-test" method but rather a way to highlight how critical learning outcomes apply to, and are utilized in, different ways by multiple specific fields of study.

VALUE encourages faculty and administrators to examine imperfections in students' work and faculty assignments to learn about what works for the diversity of students they teach while encouraging faculty (and students) to innovate and experiment with new pedagogies and technology. Through embracing imperfections in learning, enhanced quality can result.

⁴ J.J. Cumming and G.S. Maxwell, "Contextualising Authentic Assessment," *Assessment in Education: Principles, Policies, and Practices* 6, no. 2 (1999): 177–94.

The Three Phases of the Current VALUE Initiative

The current VALUE initiative is best described in three phases: (1) the 2014–15 Pilot Year, (2) the 2015–16 Demonstration Year, and (3) the 2016–17 Refinement Year.



The Pilot Year revealed that:

- A wide array of institutions can develop sampling plans to provide reliable samples of student work from across a variety of departments in order to demonstrate achievement of key learning outcomes.
- Faculty can effectively use common rubrics to evaluate student work products—even those produced for courses outside their area of expertise.
- Following training, faculty members can produce reliable results using a rubric-based assessment approach.
- Faculty report that the VALUE rubrics used in the study do encompass key elements of each learning outcome studied and were very useful for assessing student work and for improving assignments.
- A web-based platform can create an easily usable framework for uploading student work products and facilitating their assessment.
- Actionable data about student achievement of essential learning outcomes on specific key dimensions of these important learning outcomes can be generated via a common rubric-based assessment approach.

Within the Demonstration Year:

- All nine states from the Pilot Year, plus an additional three states—Hawaii, Maine, and Texas—agreed to continue to engage with the methodologies developed for sampling and collecting student work.
- The initiative began to examine the ability to create a representative sample of student work at the campus, state, and multi-state levels, with an appropriate degree of randomization.
- The initiative continued to evaluate the ability to produce useful assessment data for institutional use, to organize aggregated data for interstate comparison by sector, and to measure student learning using VALUE rubrics.
- The initiative continued to test the reliability and validity of using the VALUE rubrics in the assessment of student work.

The Demonstration Year was designed to advance understanding of the feasibility and sustainability of a common statewide model of assessment using actual student work.

During the Refinement Year:

- Attention is focused on the collection of robust, complete demographic data associated with each student work product submitted through the system to discover any trends or patterns in learning across important student populations (e.g., low-income students).
- In addition, scores generated for each learning outcome in the aggregate are being examined in relation to key variables such as faculty members' specific disciplines and their self-reported intentions for student learning through the assignment submitted and its relationship to the rubric.

The overarching goal for the Refinement Year is to ensure the fidelity of the implementation of the VALUE process at both the institutional and project levels. The ongoing VALUE initiative puts learning outcomes assessment and improvement in the hands of state and institutional leaders, faculty, and students—exactly where it needs to be if educators are serious about preparing their graduates for success beyond the first job and in their personal, civic, and social lives.

In short, VALUE is inviting the higher education community writ large to engage in a nuanced, robust examination of the quality of student learning and to explore measures of success for all students, regardless of what type of institution they attend.

Snapshot: The Multi-State Collaborative

The Centerpiece of the VALUE Initiative

The MSC is helping to change the tone and tenor of current conversations around higher education metrics for success, rightly positioning questions of quality of student learning at the center of degree completion agendas.

The primary purpose of the MSC is to provide data that allow faculty, institutional leaders, and policy makers to assess—and improve—the levels of student achievement on a set of cross-cutting outcomes important for all disciplines. In furtherance of this agenda, the MSC is focused on achieving the following goals: creating a robust system of important learning outcomes that focuses on authentic student work as evidence and privileges faculty expertise as the arbiter of quality student learning; articulating shared standards for student learning; creating a transparent system for assessment that provides appropriate data and resources to allow participants (e.g., individual institutions, states, consortia, etc.) to benchmark learning; and finally to explore the potential for this approach to inform state policy on issues such as student transfer between two-year and four-year institutions. In addition to providing states and institutions with the ability to compare their scores to aggregate project and sector results, the MSC can inform state policy in myriad ways, including reducing the over-reliance on single measures and/or standardized tests; informing policy discussions; raising up—and possibly helping to address—issues of equity; providing evidence of learning that speaks to multiple audiences and constituencies; influencing accreditors; fostering faculty communities of practice within and across states and sectors; highlighting where resources are needed; and revealing the meaning of an associate's and bachelor's degree, not just completion data.

Figure 5
MSC Goals



Keeping the results aggregated by sector for the entire MSC protects individual institutions. Public presentations of results are managed by the participating states and individual institutions. State comparisons overall and by sector are at the discretion of the individual state and are intended to prompt policy-level questions—questions having to do with state-level investment in higher education, for example.

MSC Guiding Principles

- Any system of reviewing learning outcomes should help build and support a culture of student learning that allows for assessment results to be used by each campus and by larger public systems for improving student learning and for program improvement.
- Any statewide or campus plan for assessment should be based upon authentic student work and allow for the use of multiple measures of student learning—indirect, direct, and embedded—without a single mandated statewide test.
- A common framework is needed for any statewide system concerned about learning outcomes, student success, and accountability. The AAC&U LEAP Essential Learning Outcomes and VALUE rubrics are a useful framework given their broad adoption nationally and their endorsement both within and outside of higher education institutions and systems.
- Learning outcomes as described in the VALUE rubrics are not linear, and, as such, should be viewed as developing across multiple courses, years of study, and maturation of the student.
- The VALUE rubrics reflect an understanding of learning that is multidimensional, integrated, and revealed in performance over time.



The Multi-State Collaborative is tremendously promising because it fits with the way faculty teach and students learn. The VALUE rubrics represent the goals that faculty, and our colleges and universities, hold for student outcomes. Our presidents and provosts are excited about this project because it could be a real breakthrough, serving as the missing link between teaching, assessment of course learning outcomes, and demonstration of real growth and advancement by students between the first year and graduation

Steven Rosenstone

Chancellor, Minnesota State Colleges and Universities

Table 2
Institutions that Participated in Pilot and Demonstration Year Scoring

State	Campuses
Connecticut	Two Year • Manchester Community College • Naugatuck Valley Community College • Three Rivers Community College Four Year • Central Connecticut State University • Eastern Connecticut State University • Southern Connecticut State University • Western Connecticut State University
Hawaii	Four Year • University of Hawai'i at Manoa
Indiana	Two Year • Ivy Tech Community College of Indiana • Vincennes University Four Year • Ball State University • Indiana State University • Indiana University Bloomington • Indiana University Kokomo • Indiana University-Purdue University Indianapolis • Purdue University Northwest • Purdue University North Central • University of Southern Indiana
Kentucky	Two Year • Bluegrass Community and Technical College • Hazard Community and Technical College Four Year • Northern Kentucky University • University of Kentucky
Maine	Four Year • University of Maine • University of Maine at Presque Isle

Massachusetts	Two Year • Bristol Community College • Cape Cod Community College • Holyoke Community College • Massasoit Community College • Middlesex Community College • Mount Wachusett Community College • North Shore Community College • Northern Essex Community College • Quinsigamond Community College Four Year • Fitchburg State University • Framingham State University • Salem State University • University of Massachusetts Amherst • University of Massachusetts Lowell • Westfield State University • Worcester State University
Minnesota	Two Year • Century College • Hibbing Community College • Inver Hills Community College • Itasca Community College • Minnesota State Technical and Community College • Minnesota West Community and Technical College • North Hennepin Community College • Vermilion Community College Four Year • St. Cloud State University
Missouri	Two Year • Ozarks Technical Community College • State Fair Community College Four Year • Columbia College • Lincoln University • Missouri Western State University • Southeast Missouri State University • Truman State University • University of Central Missouri • Central Methodist University⁵

⁵ Independent college, results not included in MSC aggregate project-level results

Oregon	Two Year • Chemeketa Community College • Linn Benton Community College • Portland Community College • Southwestern Oregon Community College Four Year • Eastern Oregon University • Oregon Institute of Technology • Oregon State University • Southern Oregon University • University of Oregon • Western Oregon University
Rhode Island	Two Year • Community College of Rhode Island
Texas	Two Year • San Jacinto Community College
Utah	Two Year • Salt Lake Community College • Snow College Four Year • Dixie State University • University of Utah • Utah State University



Snapshot: The Minnesota and Great Lakes Colleges Association (GLCA) Collaboratives

Value Added through Experimentation within Innovation

Within the VALUE initiative, the GLCA and Minnesota Collaboratives are adapting and extending the model developed through the MSC.

The nine participating institutions from the GLCA and the ten institutions from Minnesota, which includes five independent colleges, two public two-year, and three public four-year institutions, collected student work samples demonstrating not only written communication, quantitative literacy, and critical thinking, but also civic engagement,

intercultural knowledge and competence, and ethical reasoning, and they submitted the work samples into a nationwide database for scoring using VALUE rubrics. Additionally, these campuses collected student work at three levels—early college (less than 25 percent of credit hours completed), mid-college (between 40 and 60 percent of credit hours completed), and near completion (75 percent or more credit hours completed)—in order to address learning progression. Some are even beginning to experiment with submitting multiple work samples from the same students over time, often leveraging ePortfolio pedagogies to do so.



Professional development and interest in the quality of student learning have emerged as collaborative and meaningful action through the Minnesota and GLCA Collaboratives.



A key feature of our assessment strategy is the scoring of authentic student work using a common rubric, which the AAC&U VALUE rubrics provide. Our participation in the MSC and Minnesota Collaborative has given us both the knowledge and the capacity to assess student work from all across the university, and shed light on how to assess student learning in co-curricular programs. Our faculty members have shared the rubrics with students to help them see what different levels of learning look like, and used the rubrics to improve their existing assignments to allow students to demonstrate more aspects of each dimension. We are now able to confidently demonstrate student learning across the curriculum, including development from first year to graduation, on such key learning outcomes as written communication, oral communication, and critical thinking.

David Switzer

*Faculty Fellow for Assessment & Associate Professor of Economics
St. Cloud State University*

The cross-sector work of the Minnesota Collaborative and the GLCA Collaborative add value to VALUE by

- paying special attention to the independent liberal arts colleges' and universities' students and faculty as part of the broader conversation around assessment and the quality of student learning;
- illuminating aspects of the work required by VALUE that are particularly challenging to smaller institutions;
- demonstrating the power of cross-campus collaboration across traditional silos;
- suggesting that an unanticipated but potentially significant outcome of the VALUE initiative may indeed be the emergence of communities of practice dedicated to faculty development, assignment design, and educational quality; and
- examining the potential relationship(s) between the assignments themselves and the scored student work, including but not limited to the influence of faculty intentions for the assignments—including assignments' perceived level of difficulty—and student achievement of the learning outcomes.

Table 3

Institutions that Participated in Pilot and Demonstration Year Scoring

Project	Campuses
Great Lakes Colleges Association (GLCA) Collaborative	Four Year Private: • Allegheny College • Denison University • DePauw University • Earlham College • Hope College • Kenyon College • Ohio Wesleyan University • The College of Wooster • Wabash College
Minnesota (MN) Collaborative	Two Year Public: • Inver Hills Community College (2015-forward) • Minneapolis Community and Technical College • North Hennepin Community College (2014-2015) Four Year Public: • University of Minnesota Morris • St. Cloud State University • Southwest Minnesota State University Four Year Private: • Augsburg College • Gustavus Adolphus University • Hamline University • St. Olaf College • The College of St. Scholastica



RESULTS / VALUE REPORT 2017



Key Points about the VALUE Data Approach

The VALUE approach to assessing student learning is philosophically, pedagogically, and methodologically complex. Given this complexity, much of the emphasis of AAC&U's work has focused on establishing the methodological soundness of VALUE. This complexity must be reflected in the appropriate analysis of the data as well as in the presentation and visualization of results.

The VALUE rubrics were purposefully designed to reflect an assets-based—versus deficit-focused—approach to assessing student learning (i.e., *let's focus on what students can do and build from that solid base*). The rubric “descends” from the level-four Capstone to the level-one Benchmark when reading from left to right; when scorers are trained to assess student work using the VALUE rubrics, they begin at the highest levels of the rubric, working from the assumption that all students have the potential for achieving Capstone level work. In this way, scorers immediately orient themselves to *the learning that is possible*.

What Kind of Data Are Produced by VALUE Rubrics?

VALUE rubrics generate data that may be considered categorical or qualitative, depending upon your purposes.

Regardless, the following is true of the data:

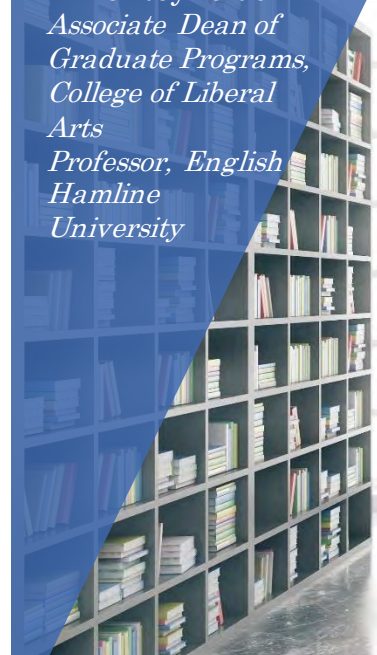
- The data are descriptive in nature.
- The data are categorical—meaning that scorers put work into categories that are labeled both numerically (4, 3, 2, 1, and 0) and linguistically (Capstone, Milestone, and Benchmark).



Participation in VALUE has diversified and expanded how we understand learning. The data sets we are getting back... are not just giving us “answers” about student learning but opening up new areas of inquiry, allowing us to focus on different student populations, enhancing our thinking about how we close the loop in teaching and curriculum and academic resources.

Caroline Hilk
*Director and Faculty
Development Coordinator,
Center for Teaching and
Learning
Hamline University*

Mike Reynolds
*Associate Dean of
Graduate Programs,
College of Liberal
Arts
Professor, English
Hamline
University*



- The categories are purposefully arranged in a developmental order; in other words, there is an intentional progression from Benchmark (1) to Milestone (2), Milestone (3), and Capstone (4). This is premised on a backward design approach of starting with the end in mind and planning back to the start methods to achieve this end.
- However, it is very important to remember that while the data generated using the VALUE rubric are ordinal (i.e., there is a logical, progressive order to the categories presented on the rubric), the data are not reflective of a true scale with equal intervals between each score.

Why Isn't the VALUE Rubric a Scale?

The simplest answer to this question is that the distance between each “point” on the VALUE rubric may not be the same. In other words, the space between Benchmark (1) and Milestone (2) and the distance between Milestone (2) and Milestone (3) is not necessarily equidistant in the same way that the space between true numerical integers is the same on a number line.

Above all, AAC&U firmly believes that presentations of the data should mirror this aspect of the rubrics. The following guide provides AAC&U's answers to frequently asked methodological questions about the VALUE data.

The AAC&U VALUE Approach to Presenting Rubric Data

The unique nature of the VALUE data—data derived by more qualitative processes with output that lends itself to quantitative, statistical consideration—is both a strength and a challenge when it comes to data presentation. AAC&U believes that the presentation of data generated by VALUE rubric scoring should reflect both the pedagogical and philosophical theories and constructs that support the development and use of the rubrics as well as methodological best practices. While each project partner and participating campus is free to present its data in whatever manner is most helpful to its intended audience(s), AAC&U adheres to the following tenets in its display of VALUE rubric data:

- The display of data must mirror the structure of the rubrics, descending from 4 to 0 and emphasizing VALUE's assets-based versus deficits-based approach to scoring and scorer training.
- This display also reinforces the notion that these data do not represent an interval scale, but instead reflect categories of possible performance and learning whose values are better represented as ordinal.

- Do not, to the extent possible, show means in the absence of descriptive context as that reinforces the false notion of scale. As part of scorer training on the VALUE rubrics, individuals are “forced” to select a single performance level for each dimension. They must assign a student work product to a single, albeit ordered category of performance, not assign placement on a continuum or scale. Such ordinal data may be better described by medians, frequency distributions, and bar charts. Furthermore, this also implies that some statistical procedures may be more appropriate for analyzing the data generated from VALUE rubrics (e.g., analysis of variance, etc.) than others.
- Do not average the scores assigned to each dimension on a VALUE rubric to create a total score for the rubric. The power of the VALUE rubrics rests in the ability to focus attention on the specific learning addressed within each dimension; a total score for the rubric provides little diagnostic assistance to students or faculty. Furthermore, averaging across rubric dimensions makes methodological assumptions that are inappropriate when treating the VALUE data as ordinal.



The MSC has been an incredibly valuable initiative because it offers us an authentic means of obtaining direct evidence and actionable data about our students' abilities to reason quantitatively, to think critically and to write. In particular, the MSC project resonates with our faculty because it is based on assignments that they create for their students and which are assessed with the VALUE rubrics that were designed by other faculty from public and private institutions across the United States. The project's focus on sampling work that faculty assign and students complete as part of their courses allowed us to highlight the faculty role in assessing student learning while creating spaces for faculty to learn more about both assessment and assignment design.

Jeanne Mullaney

*Assessment Coordinator and Professor, Spanish & French
Community College of Rhode Island*

Is the VALUE Approach to Assessment Valid?

The VALUE rubrics were created in large part due to higher education's collective dissatisfaction with available standardized tests that—divorced from the actual curriculum and cocurriculum—were perceived to have limited validity and utility as part of campus efforts to both measure and improve student learning. In contrast, the VALUE rubric development process leveraged faculty expertise and included a robust research process through which the rubric teams examined and analyzed extant literature for each dimension of each rubric and conducted an environmental scan to identify and collect rubrics that had been created for the learning outcomes by faculty and others outside of the VALUE project. As such, the VALUE rubrics had high content and face validity from the start. Additionally, the VALUE rubrics were tested with student work at over one hundred colleges and universities before their release.

The VALUE initiative has continued to examine the validity of the VALUE rubrics. During the Pilot Year, scorers were surveyed to ascertain their perceptions of the validity of the VALUE rubric. Scorers represented a diversity of institutional backgrounds, campus roles, and disciplinary perspectives, yet the vast majority found the VALUE rubric they used for scoring to be valid. This is only a piece of AAC&U's consideration of the VALUE process for assessing student learning outcomes, but it provides an important signal to the community about the robustness of the approach with those who actually own the curriculum on each campus—the faculty.

Figure 6

Faculty and Staff Saw the VALUE Rubrics as Valid.

Percent of scorers who reported Strongly Agree or Agree with each aspect of rubric use

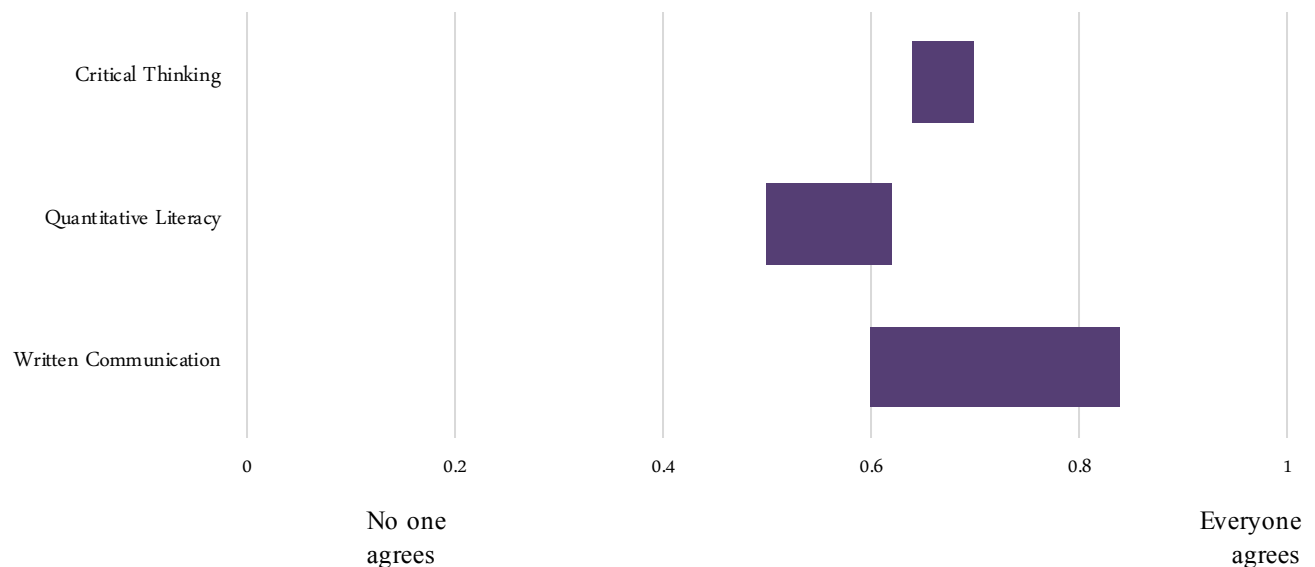


Is the VALUE Approach to Assessment Reliable?

AAC&U also investigated the reliability of the VALUE assessment process with several small-scale studies between 2008 and 2010. Through these processes, slightly different patterns of scoring emerged depending upon the disciplinary differences of the scorers. That said, there were no statistically significant differences across the group—demonstrating that faculty from a range of disciplines could indeed score student work from within or beyond their own discipline and reach relatively high levels of agreement.

As part of the Demonstration Year for the VALUE initiative, inter-rater reliability was an important methodological concern. Approximately 20 percent of the work samples submitted for Written Communication and Critical Thinking were double scored, with nearly all of the Quantitative Literacy work samples double scored. While there are a range of statistical tests available to ascertain inter-rater reliability, preliminary examinations included weighted percent agreement between raters, weighted Cohen's Kappa (which, for a design like the VALUE approach to assessing student learning, is limited in a number of ways), and Gwet's AC, which adjusts for chance by considering how difficult or easy it is to rate a subject. Using Gwet's AC, the range of agreement across the dimensions for Critical Thinking, Written Communication, and Quantitative Literacy shows that agreement can be described as moderate to strong.

Figure 7
Inter-rater Reliability Ranges Were Moderate to Strong.





The MSC is about accountability. If we are asking faculty to be accountable, it should be based on what they have control over, which is what they teach and how they teach, and what learning outcomes students in their courses can demonstrate.

Julie Carnahan,
Ph.D.
*Vice President,
SHEEO*

Are the Data Generated by the VALUE Approach Credible, Trustworthy, and Dependable?

AAC&U's initial work on validity and reliability further demonstrates that the VALUE approach to assessment stands on solid methodological ground.

Perhaps the most powerful testament to the validity and reliability of the VALUE approach to assessment comes from the individual campuses that have paired participation in the VALUE initiative with rich, local assessment of student work using the same VALUE rubrics. Many participating institutions are using data from the VALUE initiative as a validation of their own local scoring of the same student work, thereby adding a more sophisticated, robust methodological element to campus-based assessment. Importantly, many of the campuses participating in the VALUE initiative say that, through conducting their own local calibration/norming sessions and in sharing and analyzing their own students' data in relation to the VALUE project-level data, faculty and other educators have become engaged in a shared effort to enhance pedagogy and practice. These same schools report that the work of VALUE, both at the broader project level as well as on their home campuses, contributed directly to satisfying accountability requirements like accreditation and also contributed to a significant shift in faculty mindset about assessment by centering the assessment conversation in faculty members' most important work—in courses, in their own assignments, and in direct relationship with teaching and learning. In effect, institutions are leveraging the VALUE initiative as an external check of the good work they are conducting on campus, testing the validity of their approach as well as the reliability of their scoring processes.

While comparing the validity and reliability of the VALUE process to standardized tests will always be an “apples to oranges” proposition, establishing the methodological soundness of VALUE was and remains a key priority. This work, however, must take into consideration the inherent complexity—methodological, philosophical, pedagogical—that VALUE entails. It is critical to acknowledge that there is no other existing available model for this important work. By their very nature, most commercially available standardized tests that attempt to assess one or more of the Essential Learning Outcomes are designed to approximate college-level learning in their constructs.

Institutions must engage in complex machinations to ensure that data generated by such tests are, above all, representative of and useful for their campuses. In contrast, VALUE data are not a proxy for the learning that is possible on a campus. Instead, VALUE data are a direct reflection of the courses, curricula, and cocurricula from which the student work is derived.

The Value of VALUE Is Found in Its Complexity.

VALUE embraces the variables that other assessment approaches control or eliminate in their consideration of student learning, including:

- Individual, faculty-designed assignments taken straight off the syllabus and out of the classroom. There are no required common prompts.
- An approach to sampling that is designed to raise up, not wash out, the inherent diversity—from race, ethnicity, and socioeconomic status to the diversity of courses, credit-levels, and disciplinary backgrounds—found on campuses.
- Scorer training sessions that are equal parts calibration to reach a consensus score and a rich faculty development opportunity, and that are open to all faculty whether they are contingent or tenure-track, two-year or four-year, curricular or cocurricular.

Moving forward, AAC&U will engage in a deeper investigation of the validity, reliability, and generalizability of the approach, with a technical white paper anticipated in Fall 2017. As the project progresses, AAC&U will revisit the project's methodological assumptions and interrogate the data in more nuanced, complex ways to explore questions about the relationship between faculty intention, assignment design, and rubric dimensions; conceptions of assignment difficulty; and observed differences between and among raters. Above all, the methodological work will continue to support the pedagogical and philosophical tenets of the VALUE process and its ethos of high standards for student learning without defaulting to simplistic models of standardization.



Photo Courtesy of Humboldt State University

VALUE Project Aggregate Results

The results that follow provide a bird's-eye view of data generated by the VALUE initiative for Critical Thinking, Quantitative Literacy, and Written Communication, including:

- Aggregate Demonstration Year (2015-2016) results by sector from the MSC for work products submitted from students who had completed 75% of the required credit hours (ninety credits for students at four-year institutions and forty-five credits for students at two-year institutions).
- Aggregate results by sector across the entire VALUE Initiative (2014-2016)—the MSC as well as the Minnesota and GLCA Collaboratives—for work products submitted from students who had completed 75 percent of the required credit hours (ninety credits for students at four-year institutions, forty-five credits for students at two-year institutions).

The rationale for presenting the data in this manner is two-fold. First, the size of the Minnesota (ten institutions) and GLCA (nine institutions) Collaboratives as well as their multi-level credit hour sampling mean that the number of data points generated by the two projects at the 75 percent completion level is too small to present separately. Second, AAC&U recognizes that all sectors of higher education contribute to public policy priorities such as degree completion and baccalaureate degree attainment. Many states—such as Missouri and Virginia—explicitly work with private institutions to promote the public good of education.

It is also important to highlight specific nuances inherent in the data. AAC&U does not see these nuances as limitations, but rather as important contextual facets of the data. Future work will attempt to address some of these facets, while others are simply reflective of the multiple moving parts that make VALUE a rich alternative to other modes for assessing student learning:

- First and foremost, the data are not generalizable beyond the three individual VALUE Collaboratives. Extrapolating meaning and making inferences about the quality of learning at the state or national level are entirely inappropriate at this time.
- Though the MSC in particular has achieved representation at the project level (i.e., the demographic characteristics of students whose work was included in the project in general reflect the composition of graduates from participating schools), the sample of seventy-five to one hundred artifacts per outcome submitted by each school are sometimes too small relative to the size of the campus to allow for broad generalizations, even more so for those institutions experimenting with collecting student work at multiple credit levels.

- A “Zero” score on any piece of student work is best described as reflective of an absence of evidence of student learning for that specific criterion. That absence of evidence may be attributable to poor student performance, but it is also possible that the assignment from which the student work product was derived did not actually prompt the student to demonstrate their skills or abilities in a particular area.
- By collecting a single work product from each student at the 75 percent credit completion level, there is no way to contextualize these data in terms of student growth and assign a value judgment to it either individually for the student or collectively for the institution or the project.
- When submitting student work products, faculty have the opportunity to indicate whether or not the assignment that generated the work product was designed to explicitly address each criterion of the rubric. That information is recorded in the VALUE database. Regardless of faculty intentionality, each work product is scored against all criteria on the rubric. The very design of the undergraduate curricula assumes students will leverage their learning from across the totality of their experiences, integrating prior knowledge, skills, and abilities into new, novel situations—be it a new course, participation in a high-impact practice, or the first job after graduation. Or, to put it more simply, students often exceed expectations and should be given the opportunity to do so.

How to Interpret and Use the Data

The data displays presented comply with the key points delineated earlier in this report. For the MSC data, results for each dimension of each rubric are presented as stand-alone bar graphs, mirroring the assets-based, developmental structure of the rubrics themselves, with the highest level of performance, Capstone (4), at the top of the graph, and the lowest level of performance, Zero, at the bottom. Each bar represents the percentage of student work that was scored at that particular level of performance. For the VALUE initiative-wide results, small multiples bar graphs are used, which allows for the presentation of all the data (i.e., the percentage of student work scored at each level of performance for each dimension) in a single graphical display that—like the individual bar graphs—mirrors the structure and adheres to the pedagogical and philosophical assumptions of the VALUE rubrics.

Before discussing how to use the data, it is important to assert how the data should not be used. This system is not designed to publicly judge the effectiveness of individual faculty members. VALUE has one goal: to help all students achieve the levels of proficiency necessary for success in work and in life. It takes faculty and programs working collectively to help students achieve high levels of demonstrated accomplishment.

As an institution gathers solid evidence of what teaching and learning practices consistently lead to required proficiency, faculty will be more likely to adopt those evidence-based practices. The process of continuous improvement built into the VALUE project, in other words, is based on carrots and not sticks.

AAC&U makes no attempt to set specific threshold or target scores for achievement at two- and four-year institutions. That said, the rubrics reflect the collective best thinking and ambitions for learning within higher education in the United States, so it is not unreasonable to say that scores at the two Milestone levels are appropriate for students who have completed the majority of their coursework for an associate's degree, and that scores moving up from Milestone (3) to Capstone (4) are appropriate for those on the cusp of completing a baccalaureate degree. Indeed, some users have indicated that the Capstone level may be viewed as aspirational for many students, but necessary as a goal to encourage students' and faculty's best work. The purpose in presenting the data is not to create specious comparisons but rather to provide a landscape of learning for the participating institutions that can serve as a useful touchstone for institutions to understand their own students' performance in relation to the project.

Individual institutions, of course, are welcomed and encouraged to undertake a study focusing on key proficiencies of the learning outcomes from the VALUE initiative. An institution can decide, for example, to measure the development of students' critical thinking and written communication through the general education curriculum. A team of faculty members and others can assess authentic, problem-centered student work at the beginning, middle, and end of that series of courses, measuring the aggregate improvement in those two skills over time. If institutional leaders and faculty decide the level of development is lower than expected, they can target where interventions can be included in courses and assignments and assess the learning again after those changes take place. For example, assignments may be modified to elicit specific learning improvements to see if improvement occurs, or they may be changed to include evidence-based high-impact teaching and learning practices that tend to lead to better learning outcomes. Such a criterion-referenced approach helps to put the landscape described by VALUE into context and helps to frame the next phase of VALUE work.



Photo Courtesy of St. Joseph's College

Results for the Multi-State Collaborative: Centerpiece of the VALUE Initiative

2015-2016 Demonstration Year

2-Year Institutions, 75% Credit-Hour Completion = 45 credit hours+ completed

4-Year Institutions, 75% Credit-Hour Completion = 90 credit hours+ completed

Highest Possible Score: Capstone (4)

Results Presented for:

Critical Thinking: 5 Dimensions, Representing 840 Pieces of Student Work from 2-Year Institutions and 2,056 Pieces of Student Work from 4-Year Institutions

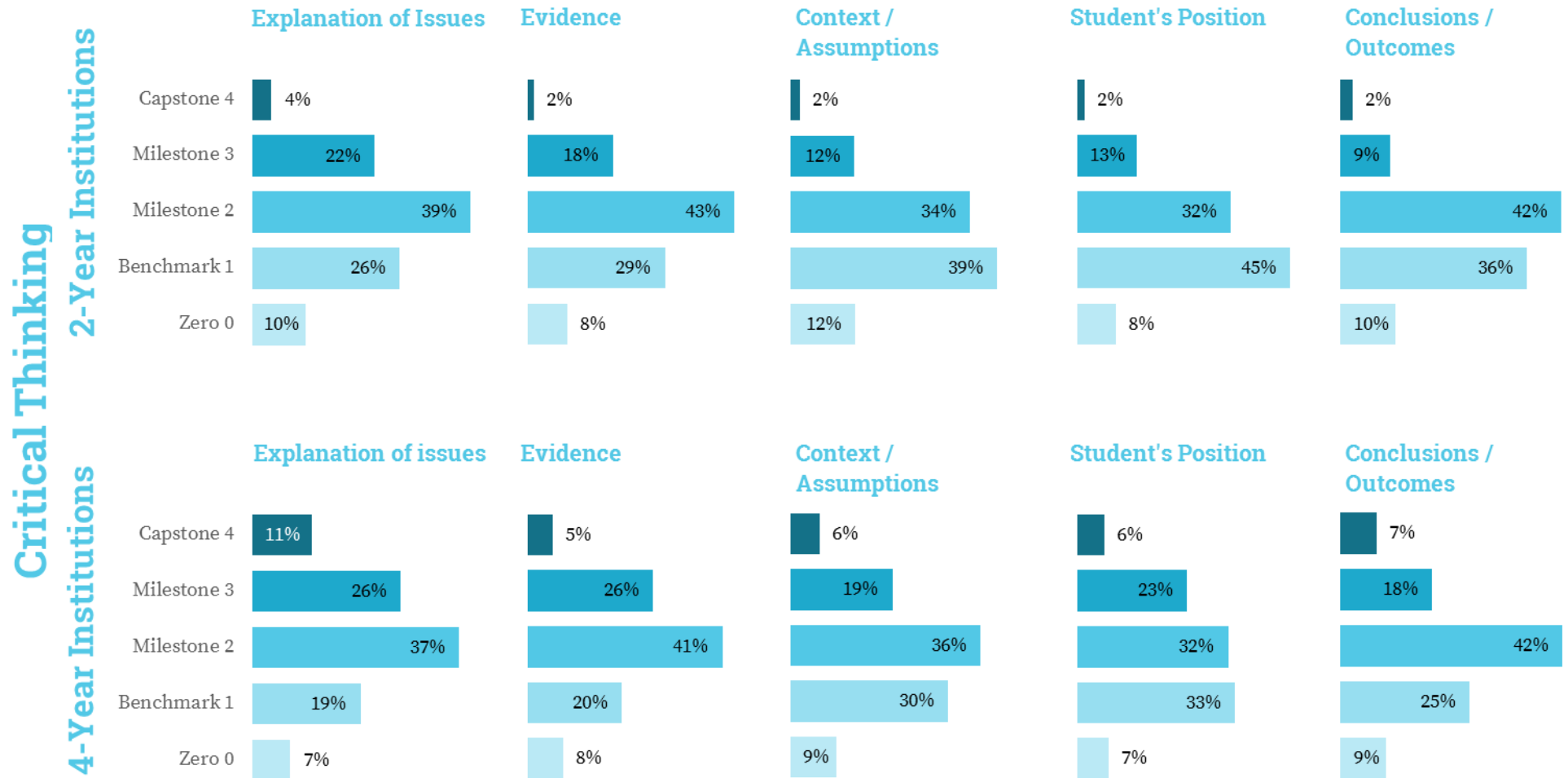
Quantitative Literacy: 6 Dimensions, Representing 576 Pieces of Student Work from 2-Year Institutions and 787 Pieces of Student Work from 4-Year Institutions

Written Communication: 5 Dimensions Representing 919 Pieces of Student Work from 2-Year Institutions and 1,936 Pieces of Student Work from 4-Year Institutions

Results for the Multi-State Collaborative: 2015-2016

Demonstration Year

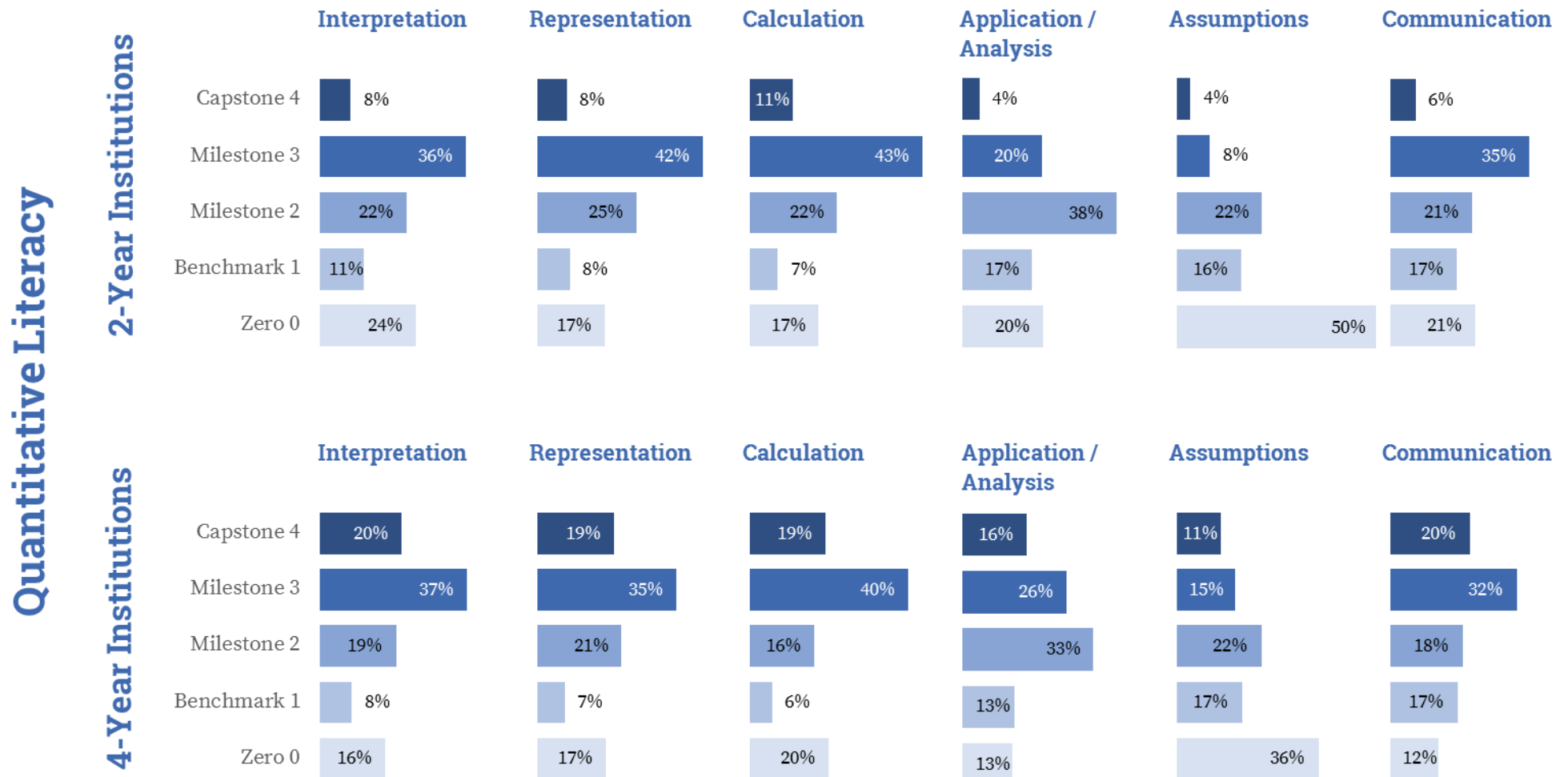
75% Completion (2-Year Institutions = 45+ Credit Hours; 4-Year Institutions = 90+ Credit Hours)



Results for the Multi-State Collaborative: 2015-2016

Demonstration Year

75% Completion (2-Year Institutions = 45+ Credit Hours; 4-Year Institutions = 90+ Credit Hours)



Results for the Multi-State Collaborative: 2015-2016

Demonstration Year

75% Completion (2-Year Institutions = 45+ Credit Hours; 4-Year Institutions = 90+Credit Hours)



VALUE Initiative-Wide Results 2014-2016: Combined Total Results for 2-Year Institutions

2014-2015 Demonstration Year and 2015-2016 Demonstration Year
2-Year Institutions, 75% Credit-Hour Completion = 45+ credit hours completed
Highest Possible Score: Capstone (4)

Results Presented for:

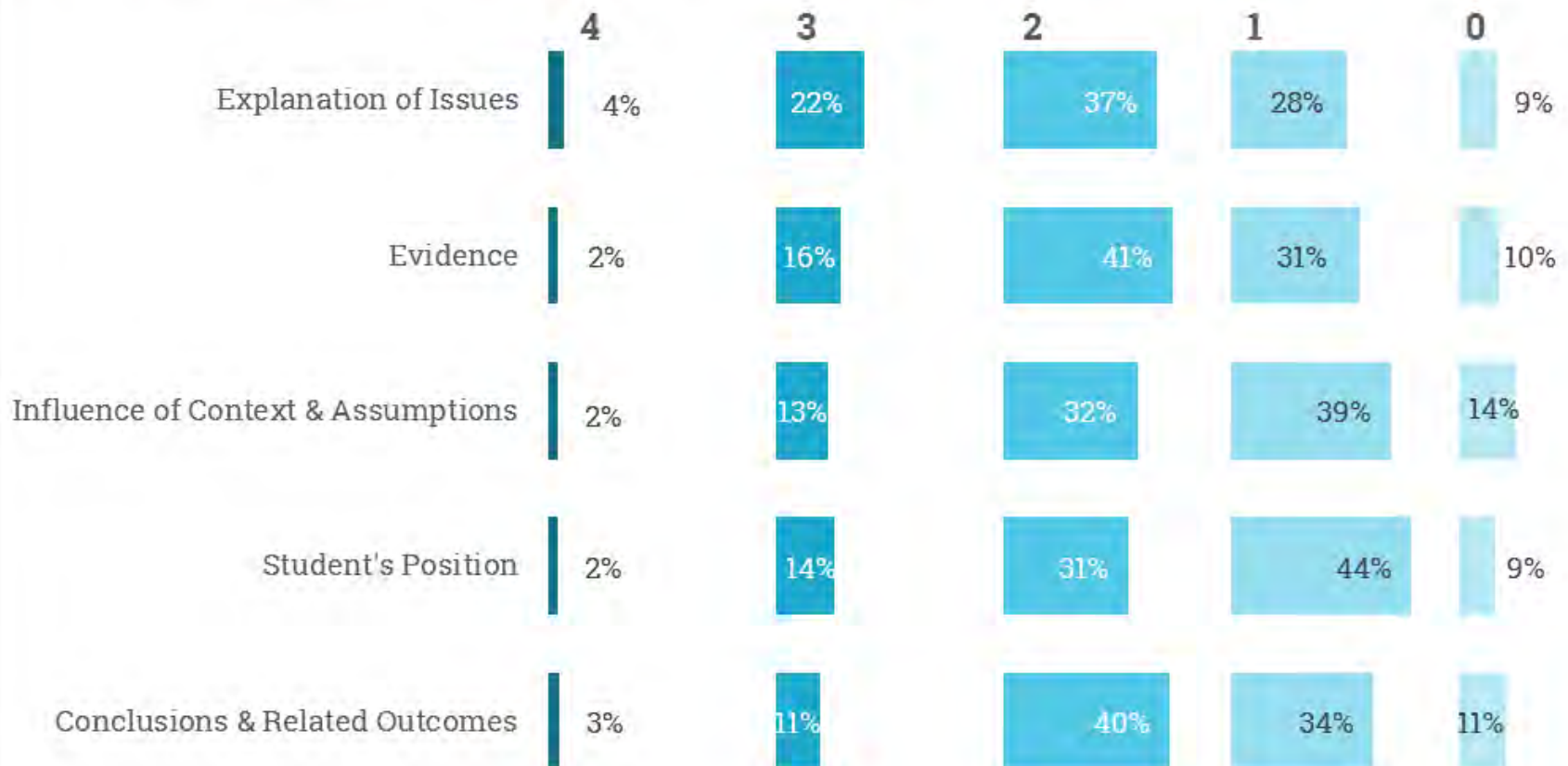
Critical Thinking: 5 Dimensions, Representing 1,659 Pieces of Student Work

Quantitative Literacy: 6 Dimensions, Representing 1,740 Pieces of Student Work

Written Communication: 5 Dimensions Representing 2,296 Pieces of Student Work

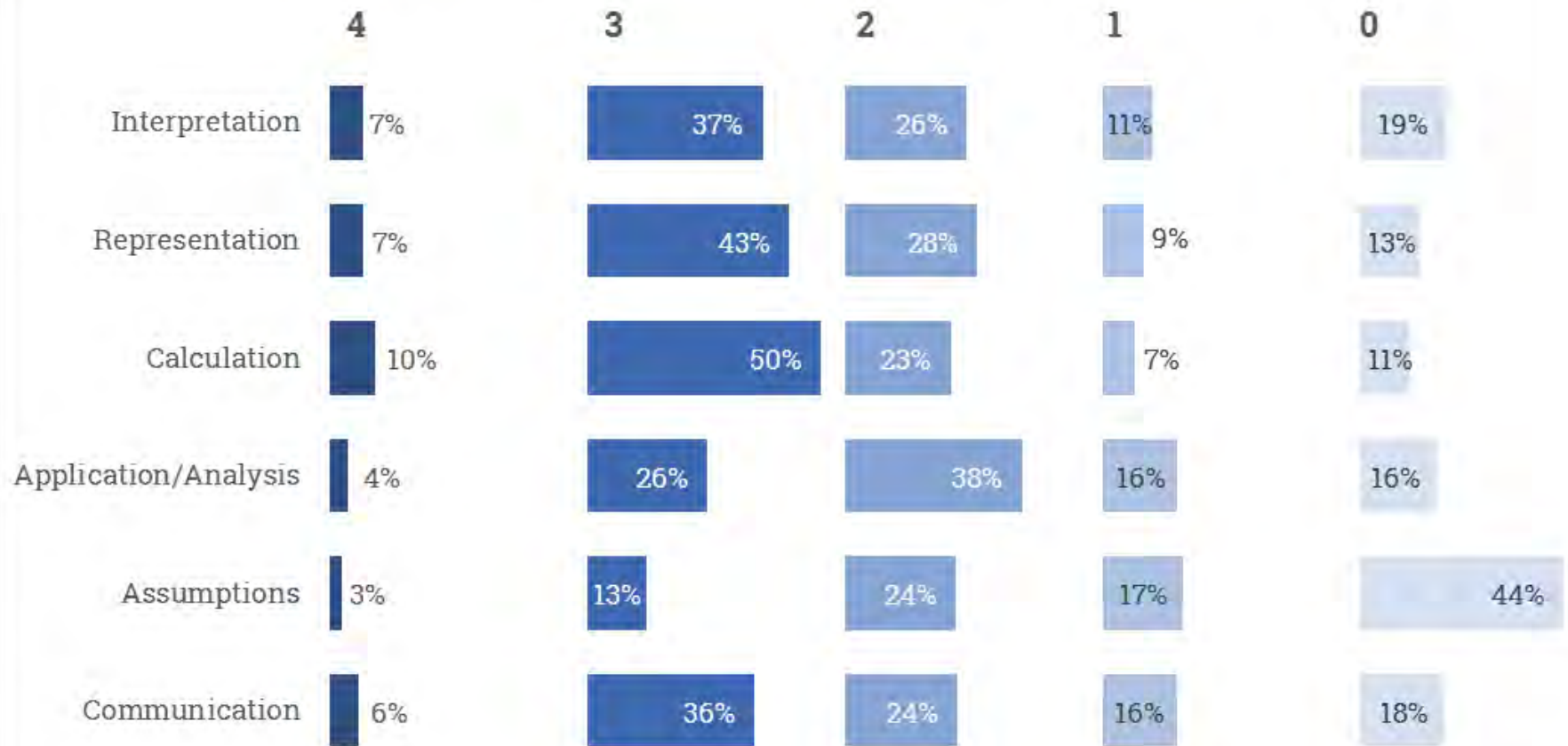
VALUE Initiative-Wide Results 2014-2016: Critical Thinking

2-Year Institutions, 75% Completion (45+ Credit Hours)



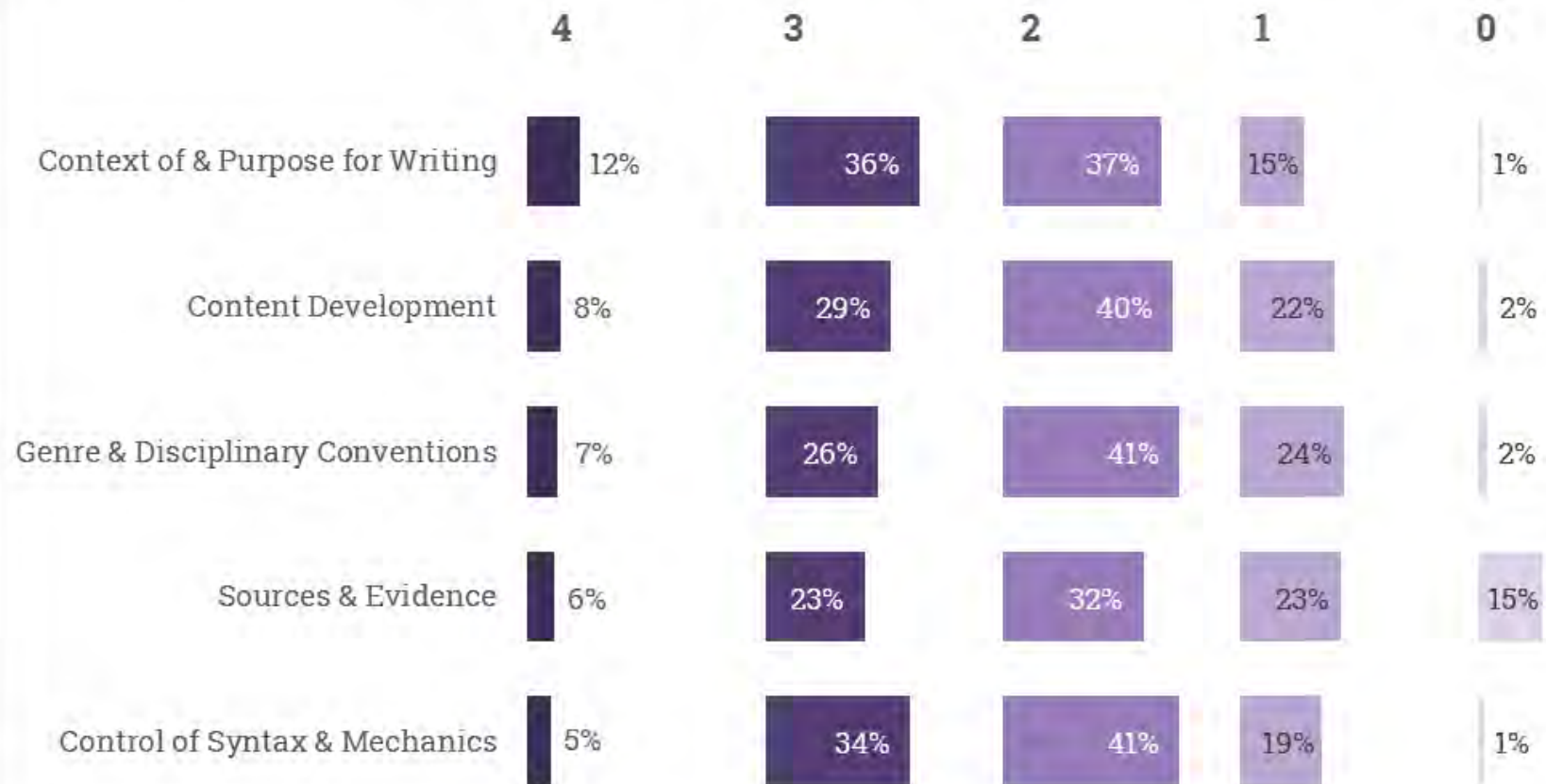
VALUE Initiative-Wide Results 2014-2016: Quantitative Literacy

2-Year Institutions, 75% Completion (45+ Credit Hours)



VALUE Initiative-Wide Results 2014-2016: Written Communication

2-Year Institutions, 75% Completion (45+ Credit Hours)



VALUE Initiative-Wide Results 2014-2016: Combined Total Results for 4-Year Institutions (Public and Private)

2014-2015 Demonstration Year and 2015-2016 Demonstration Year
4-Year Institutions, 75% Credit-Hour Completion = 90+ credit hours completed
Highest Possible Score: Capstone (4)

Results Presented for:

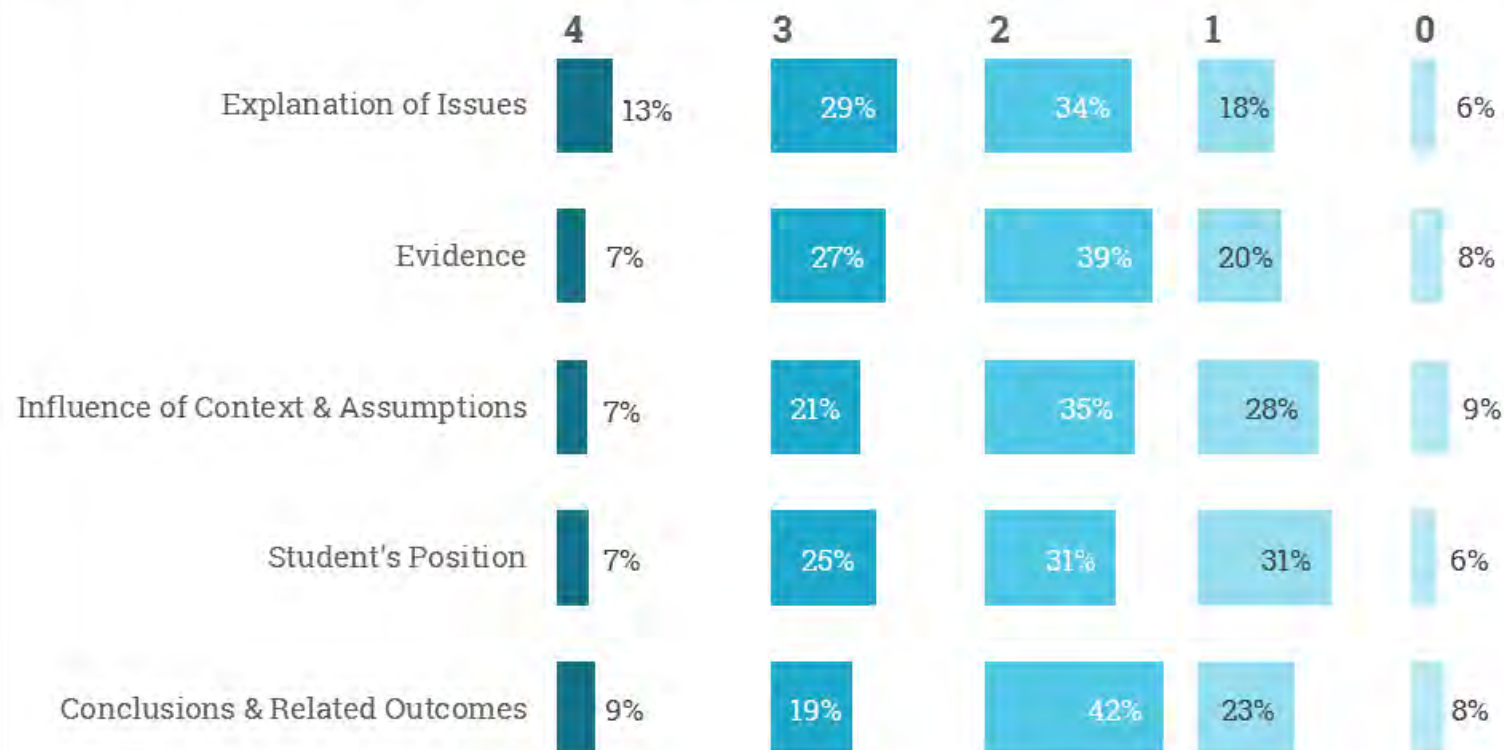
Critical Thinking: 5 Dimensions, Representing 4,530 Pieces of Student Work

Quantitative Literacy: 6 Dimensions, Representing 2,214 Pieces of Student Work

Written Communication: 5 Dimensions Representing 5,175 Pieces of Student Work

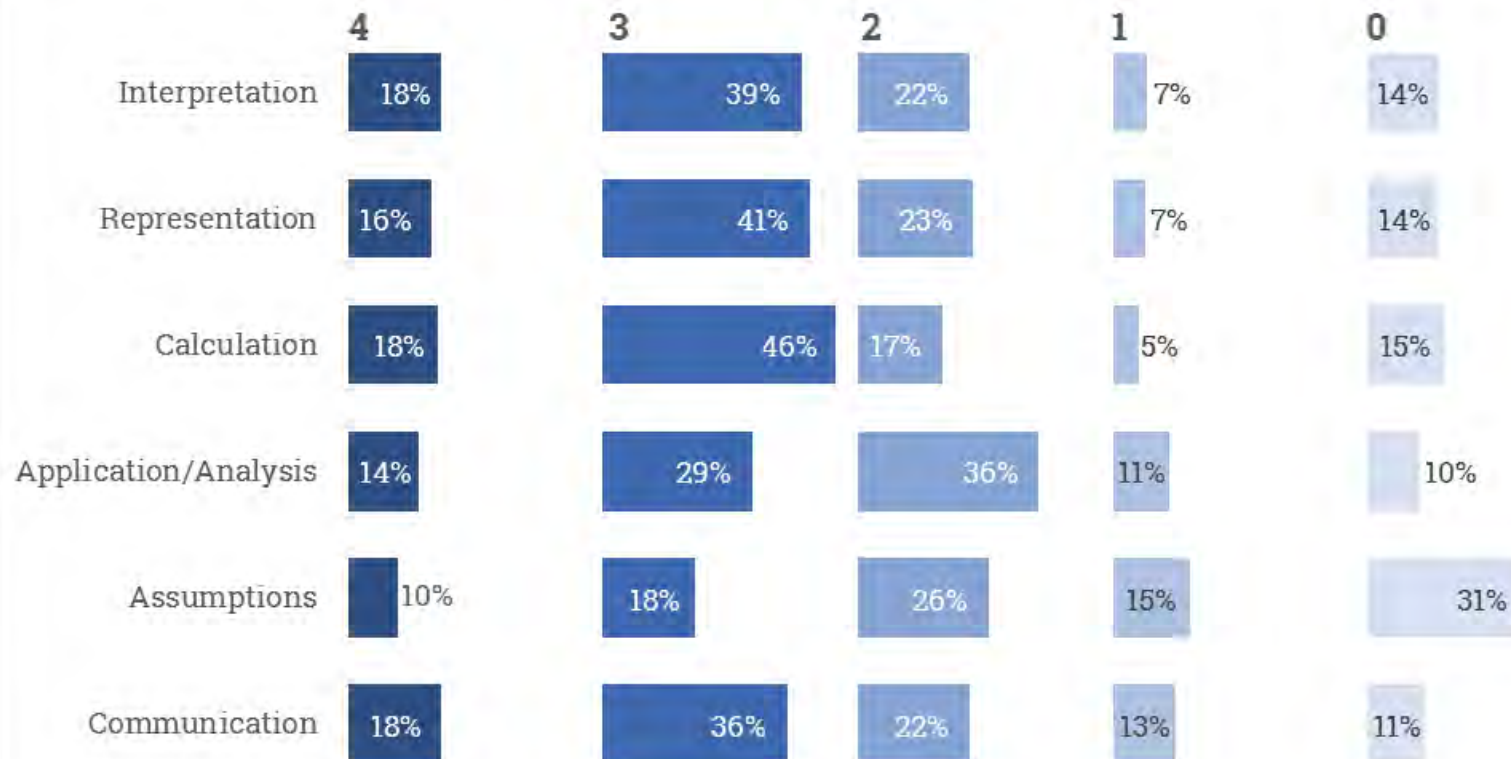
VALUE Initiative-Wide Results 2014-2016: Critical Thinking

4-Year Institutions, Public & Private, 75% Completion (90+ Credit Hours)



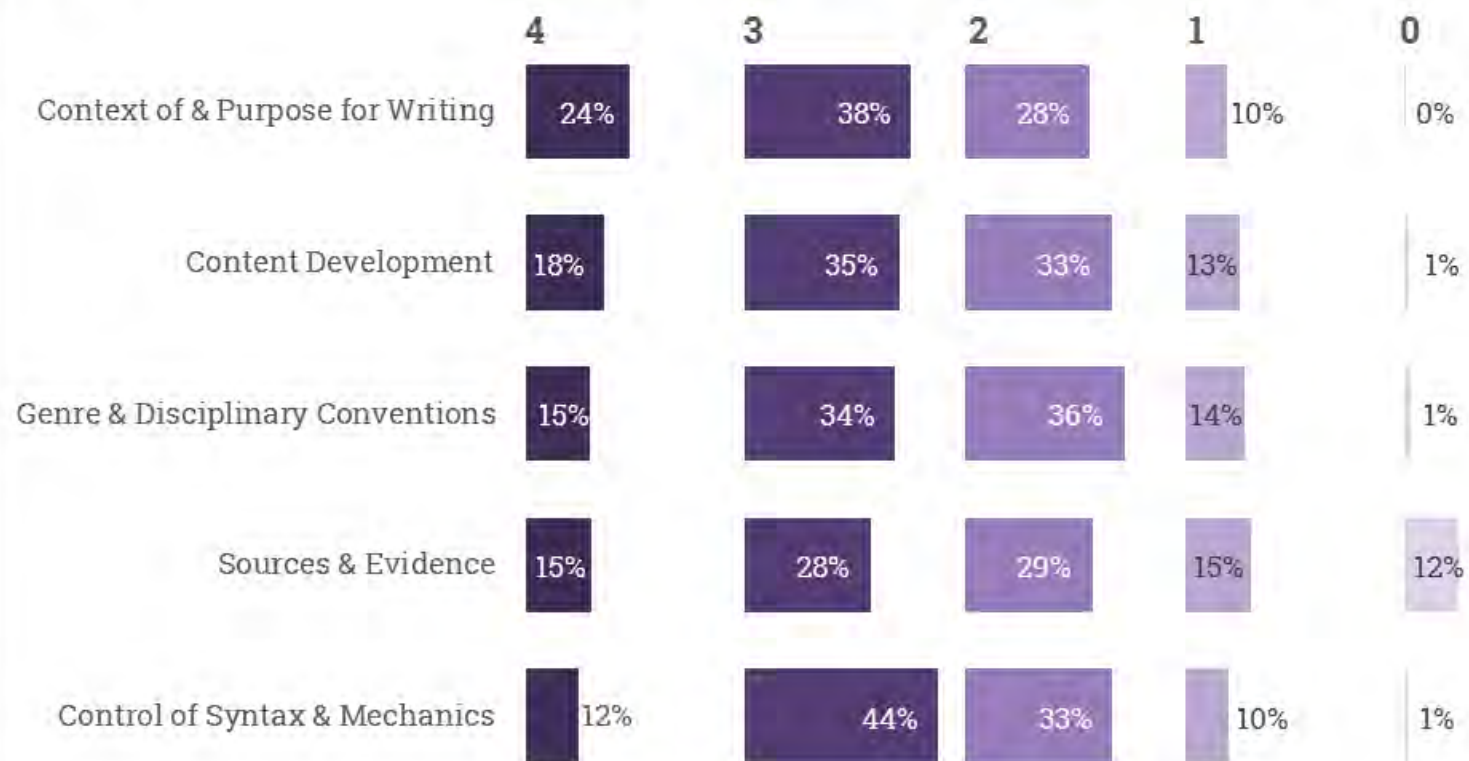
VALUE Initiative-Wide Results 2014-2016: Quantitative Literacy

4-Year Institutions, Public & Private, 75% Completion (90+ Credit Hours)



VALUE Initiative-Wide Results 2014-2016: Written Communication

4-Year Institutions, Public & Private, 75% Completion (90+ Credit Hours)



**FUTURE
OF VALUE / VALUE
REPORT
2017**



The Future of VALUE

The Nexus of Quality and Equity in Higher Education

In a world awash in data, VALUE generates evidence—evidence that points to what is working well and, critically, where there is room for improvement. It empowers faculty as both disciplinary and pedagogical experts, yet at the same time challenges faculty to interrogate their own teaching practices and assumptions about how their students in particular come to master important knowledge, skills, and abilities within the context of their classes. If faculty are truly the owners and arbiters of the curriculum at each institution, they—in partnership with their students—must also own the learning.

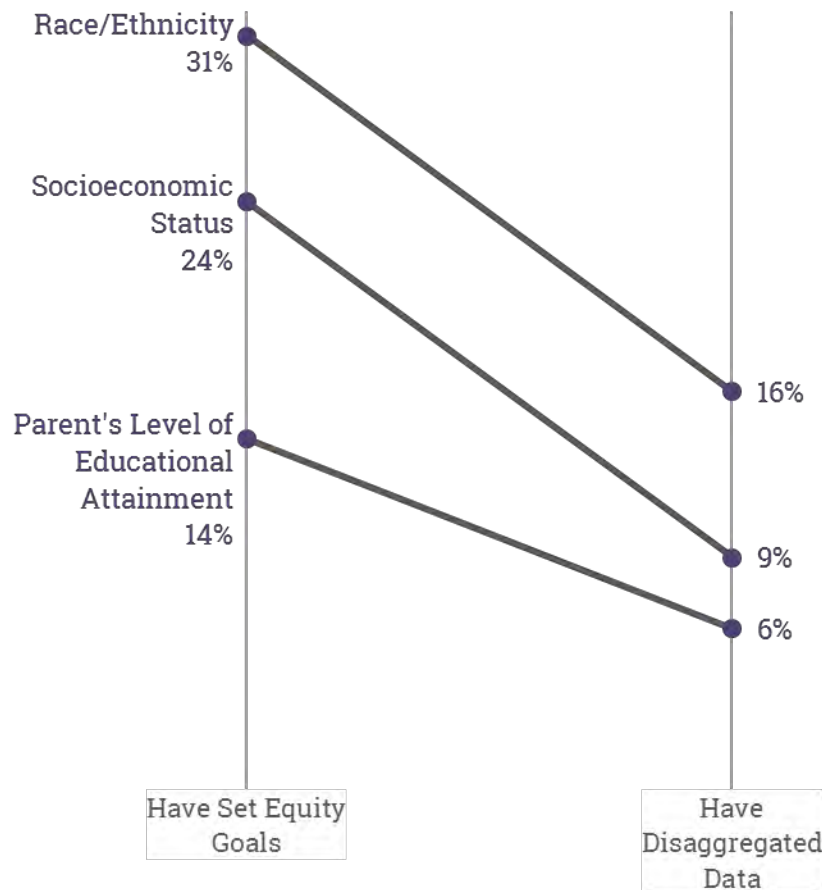
AAC&U also believes it is impossible to decouple quality from equity, most especially when promoting degree completion. In its most recent survey of chief academic officers at member institutions, 85 percent of respondents reported that their college or university has articulated institutional learning outcomes for its students, yet only 9 percent believed that “almost all” of their students understood the intended learning outcomes.⁶ While nearly all institutions both track and disaggregate key completion metrics like retention and graduation rates, only 70 percent reported that they tracked students’ achievement of learning outcomes. Additionally, only 17 percent reported that they disaggregated data on student achievement of learning outcomes by such critical factors as race and ethnicity, socioeconomic status, and parents’ level of educational attainment (e.g., students’ first-generation status). Ironically, while nearly a third of institutions reportedly have set equity goals for student learning along these demographic characteristics, few reported disaggregating their data.⁷

In other words, even some campuses that have set equity goals to close gaps in achievement of learning outcomes across different student populations do not consider the very data that defines success.

⁶ Hart Research Associates, *Recent Trends in General Education Design, Learning Outcomes, and Teaching Approaches* (Washington, DC: 2016). Selected findings from survey of chief academic officers at member institutions conducted on behalf of AAC&U.

⁷ Hart Research Associates, *Bringing Equity and Quality Learning Together: Institutional Priorities for Tracking and Advancing Underserved Students’ Success* (Washington, DC: 2015). Selected findings from survey of chief academic officers at member institutions conducted by Hart Research Associates on behalf of AAC&U.

Figure 8 Member Survey Results Indicate a Lack of Attention to Data to Determine Success of Equity Goals



Given this, AAC&U and its partners not only believe that the VALUE initiative is key to addressing issues of quality and equity in undergraduate education but also believe that the higher education community needs to quickly, intentionally, and collaboratively ask tough, complicated questions of itself while simultaneously generating answers that those outside the academy will understand and trust.

Knowing that VALUE is on solid ground signals that the foundation exists for achieving more when it comes to student learning, but is also a reminder that, in times of uncertainty, losing ground is also a risk.

With this ambitious goal, several priorities and next steps have emerged from the Pilot and Demonstration Year experiences:

- Methodologically, there will be increased examination of demographic and assignment data. There will be focused, robust efforts to address student achievement of outcomes by gathering information on assignment difficulty and faculty intentions. Investigations will continue to discover different ways to represent and communicate the results of the initiative to disparate audiences both on and off campuses, including but not limited to piloting the use of creative and interactive data visualizations of VALUE results.
- Within the MSC, several states are focusing attention on gathering samples from a representative group of institutions across their state. With the addition of Virginia, the MSC has expanded to thirteen states, and more states have indicated their interest in joining the initiative. From a state policy perspective, implications of the VALUE results for student transfer and articulation are being explored. Finally, the MSC is exploring the development of an interstate team to assist any participating institution with problems or questions they encounter in the VALUE process.
- AAC&U will continue to model, document, and—importantly—expand both the professional development benefits offered through the VALUE approach and the powerful models for cross-institution, cross-sector, and cross-state collaboration best illustrated by the work of the Minnesota and GLCA Collaboratives.
- The VALUE initiative will begin pilots involving the longitudinal assessment of learning for individual students by gathering work at multiple points through ePortfolios or other strategies. This will allow for the development of learning patterns that are more closely associated with institutional instruction and that more accurately reflect the developmental learning modeled in the VALUE rubrics.
- Finally, AAC&U will lead efforts to review the rubrics to consider strategic revisions for translating rubric language for students, employers, policy makers, and the general public to better convey the importance of the nuanced and complex learning that occurs through student work.

The work of VALUE continues. AAC&U is committed to modeling the iterative, transparent approach that VALUE uses to assess student learning by seriously engaging in the repeated testing of the VALUE methodology while honoring its philosophical and pedagogical commitments through its collaborations with states, organizations, institutions, faculty, staff, administrators, and—above all—students.

WHO WE ARE

AACU

AAC&U is the leading national association concerned with the quality, vitality, and public standing of undergraduate liberal education. Its members are committed to extending the advantages of liberal education to all students, regardless of academic specialization or intended career. Founded in 1915, AAC&U now comprises nearly 1,400 member institutions—including accredited public and private colleges, community colleges, research universities, and comprehensive universities of every type and size. AAC&U functions as a catalyst and facilitator, forging links among presidents, administrators, and faculty members who are engaged in institutional and curricular planning. Its mission is to reinforce the collective commitment to liberal education and inclusive excellence at both the national and local levels, and to help individual institutions keep the quality of student learning at the core of their work as they evolve to meet new economic and social challenges. Information about AAC&U membership, programs, and publications can be found at www.aacu.org.

Our Partners

The **State Higher Education Executive Officers (SHEEO)** association is the national association of state higher education leaders who serve statewide coordinating and governing boards and other state policy agencies for higher education. Founded in 1954, SHEEO serves its members as an advocate for state policy leadership, as a liaison between states and the federal government, as a vehicle for learning from and collaborating with peers, and as a source of information and analysis on educational and public policy issues. SHEEO seeks to advance public policy and educational practices to achieve more widespread access and successful participation in higher education, more new discoveries through research, and more applications of knowledge that improve the quality of human lives. Information about SHEEO membership, programs, and publications can be found online at www.sheeo.org.

The **Great Lakes Colleges Association, Inc.**, was founded in 1962. Since its founding, it has been governed by its Board of Directors and charged with working on behalf of its member institutions, a consortium of thirteen private liberal arts colleges located in Indiana, Michigan, Pennsylvania, and Ohio. The member colleges of the GLCA are Albion College, Allegheny College, Antioch College, Denison University, DePauw University, Earlham College, Hope College, Kalamazoo College, Kenyon College, Oberlin College, Ohio Wesleyan University, Wabash College, and The College of Wooster. The mission of the Great Lakes Colleges Association is to take actions that will help strengthen and preserve our colleges, and to be a leading force on behalf of education in the tradition of the liberal arts and sciences. Rich in tradition, GLCA will continue to enhance our colleges by leading as new areas of opportunity and challenge emerge.

Taskstream is the technological partner for the VALUE project. After emerging through a competitive proposal process, Taskstream worked with AAC&U and SHEEO to develop the current online platform, known as Aqua, that securely hosts assignments and student work products as well as online scoring of student work. Taskstream's mission is to help institutions deepen and expand meaningful assessment practices in order to harness better data for learning campus-wide. More information can be found online at www.taskstream.com.

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