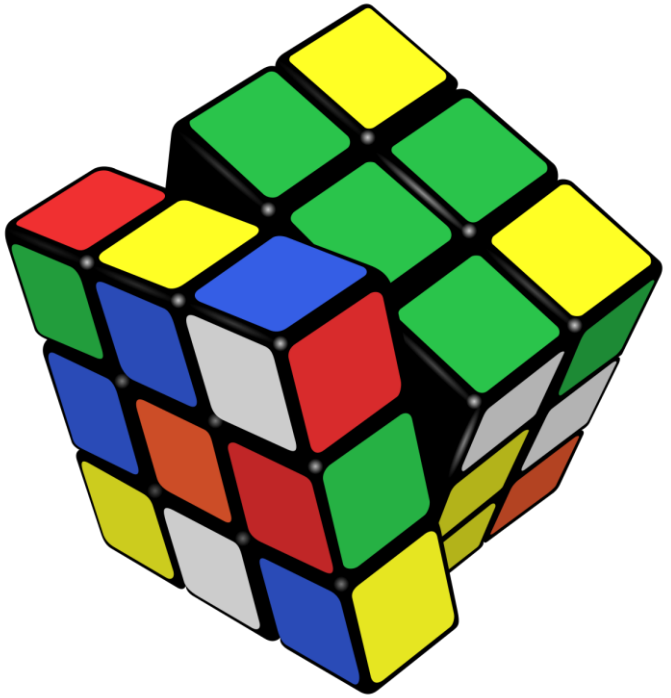
Rubric adaptation: How to customize your assessment tools

Spring 2018 Webinar Series on

Skills Development and Assessment



Monday, April 23, 2018

12:00-1:00 PM EDT

Housekeeping

- Q&A following the presentations
  - Approximately 12:30 PM EDT
  - Type questions into the “Chat” box

- Slides + recording posted to HEQCO website later this week
  - Email will be sent to all webinar registrants

HEQCO: Informing the future of higher ed

- HEQCO is an agency of the Government of Ontario that brings evidence-based research to the continued improvement of the postsecondary education system.

Learning Outcomes Assessment Consortium

Rubric adaptation: How to customize your assessment tools

Dr. Terrel Rhodes

Vice President, Office of Quality, Curriculum and Assessment
Executive Director of VALUE
Association of American Colleges and Universities (AAC&U)

Dr. Brian Frank

Associate Dean (Teaching & Learning)
Professor, Department of Electrical and Computer Engineering
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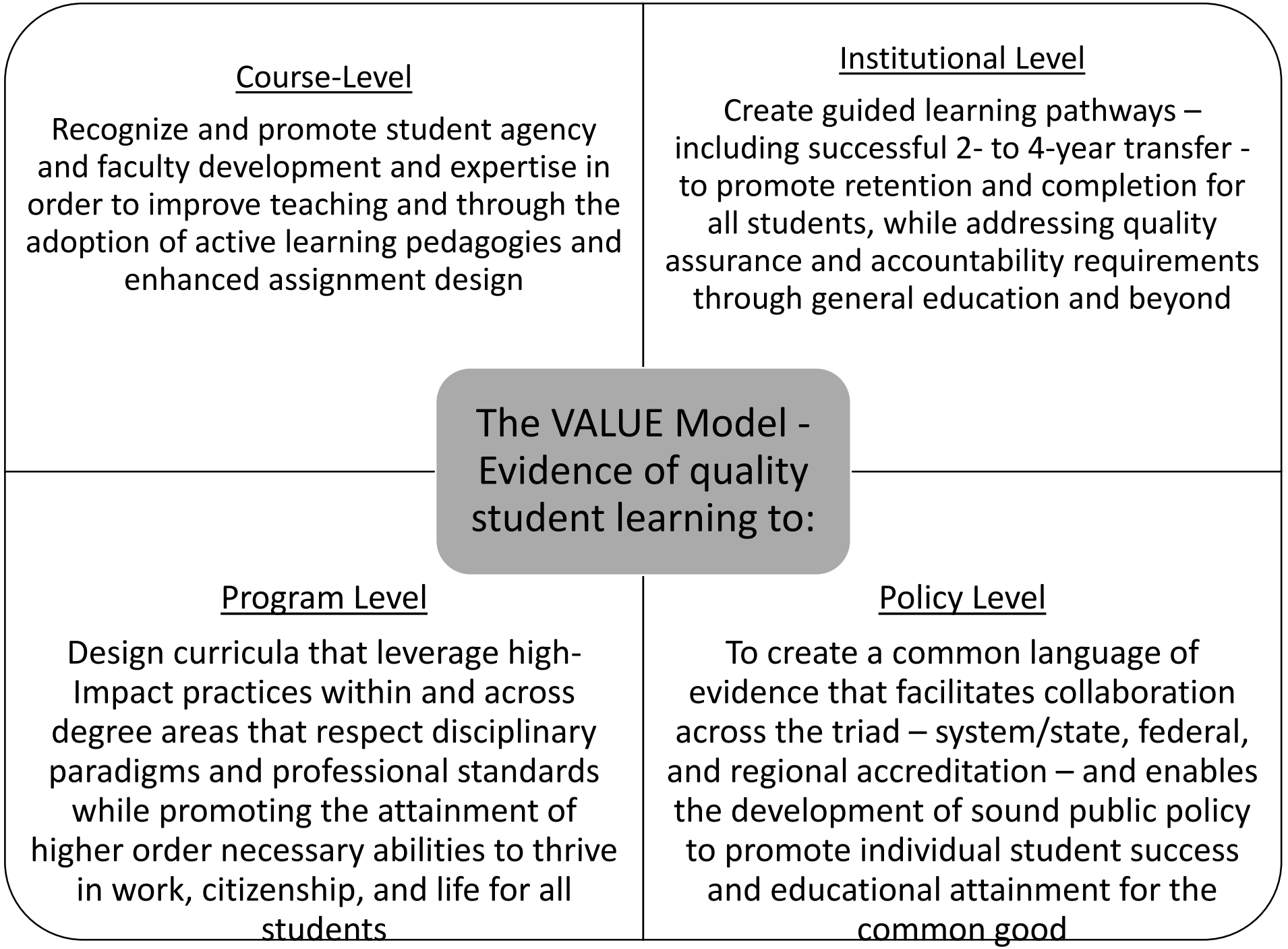
Using Valid Assessment of Learning in Undergraduate Education (VALUE) Results for Learning Improvement, Professional Development and Equity:

Assessment that Empowers Faculty to Take Risks with Pedagogical Innovation

Terrel L. Rhodes
Association of American Colleges and Universities
April 23, 2018


Course-Level
Recognize and promote student agency and faculty development and expertise in order to improve teaching and through the adoption of active learning pedagogies and enhanced assignment design
Institutional Level
Create guided learning pathways – including successful 2- to 4-year transfer - to promote retention and completion for all students, while addressing quality assurance and accountability requirements through general education and beyond
The VALUE Model - Evidence of quality student learning to:
Program Level
Design curricula that leverage high-Impact practices within and across degree areas that respect disciplinary paradigms and professional standards while promoting the attainment of higher order necessary abilities to thrive in work, citizenship, and life for all students
Policy Level
To create a common language of evidence that facilitates collaboration across the triad – system/state, federal, and regional accreditation – and enables the development of sound public policy to promote individual student success and educational attainment for the common good

VALUE Rubric Approach - Assumptions

- Learning is a process that occurs over time
- Student work is most robust representation of student motivated learning
- Focus on what student does in terms of key dimensions of learning outcomes
- Faculty and educator expert judgment
- Results are useful and actionable for improvement of learning

VALUE Rubric

CRITICAL THINKING VALUE RUBRIC

for more information, please contact value@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 by 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.

The Anatomy of a VALUE Rubric

Criteria

INTEGRATIVE LEARNING VALUE RUBRIC

for more information, please contact value@aacu.org

Definition

Integrat ng is an understanding and a disposition that a student builds across the curriculum and cocurriculum, from making simple connections among ideas and experiences to synthesizing and transferring learn ew complex situations within and beyond the campus.

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	Milestones 2	Benchmark 1
Connections to Experience *Connects relevant experience and academic knowledge*	Meaningfully **synthesizes** connections among experiences outside of the formal classroom (including life experiences and academic experiences such as internships and travel abroad) to **deepen understanding** of fields of study and to broaden own points of view.	Effectively **selects and develops** examples of life experiences, drawn from a variety of contexts (e.g., family life, artistic participation, civic involvement, work experience), to **illuminate** concepts/theories/frameworks of fields of study.	**Compares** life experiences and academic knowledge to infer differences, as well as similarities, and **acknowledge perspectives** other than own.	**Identifies** connections between life experiences and those academic texts and ideas **perceived as similar and related** to own interests.
Connections to Discipline *Sees (makes) connections across disciplines, perspectives*	Independently creates wholes out of multiple parts (synthesizes) or draws conclusions by combining examples, facts, or theories from more than one field of study or perspective.	Independently connects examples, facts, or theories from more than one field of study or perspective.	When prompted, connects examples, facts, or theories from more than one field of study or perspective.	When prompted, presents examples, facts, or theories from more than one field of study or perspective.
Transfer *Adapts and applies skills, abilities, theories, or methodologies gained in one situation to new situations*	Adapts and applies, independently, skills, abilities, theories, or methodologies gained in one situation to new situations **to solve difficult problems or explore complex issues in original ways.**	Adapts and applies skills, abilities, theories, or methodologies gained in one situation ations **to solve problems or ues.**	Uses skills, abilities, theories, or methodologies gained in one situation in a new situation **to contribute to understanding of problems or issues.**	Uses, in a basic way, skills, abilities, theories, or methodologies gained in one situation **in a new situation.**
Integrated Communication	Fulfills the assignment(s) by choosing format, language, or graph (or ot representation) **in ways that meaning**, making clear th interdependence of la meaning, thought,	s the assignment(s) by choosing a rmat, language, or graph (or other visual representation) **to explicitly connect content and form**, demonstrating awareness of purpose and audience.	Fulfills the assignment(s) by choosing a format, language, or graph (or other visual representation) that **connects in a basic way** what is being communicated (content) with how it is said (form).	Fulfills the assignment(s) (i.e. to produce an essay, a poster, a video, a PowerPoint presentation, etc.) **in an appropriate form.**
Reflection and Self-Assessment *Demonstrates a developing sense of self as a learner, building on prior experiences to respond to new and challenging contexts (may be evident in self-assessment, reflective, or creative work)*	Envisions a fu possibly makes plan n past experi e occurred across mul rse contexts.	Evaluates changes in own learning over time, recognizing complex contextual factors (e.g., works with ambiguity and risk, deals with frustration, considers ethical frameworks).	Articulates strengths and challenges (within specific performances or events) to increase effectiveness in different contexts (through increased self-awareness).	Describes own performances with general descriptors of success and failure.

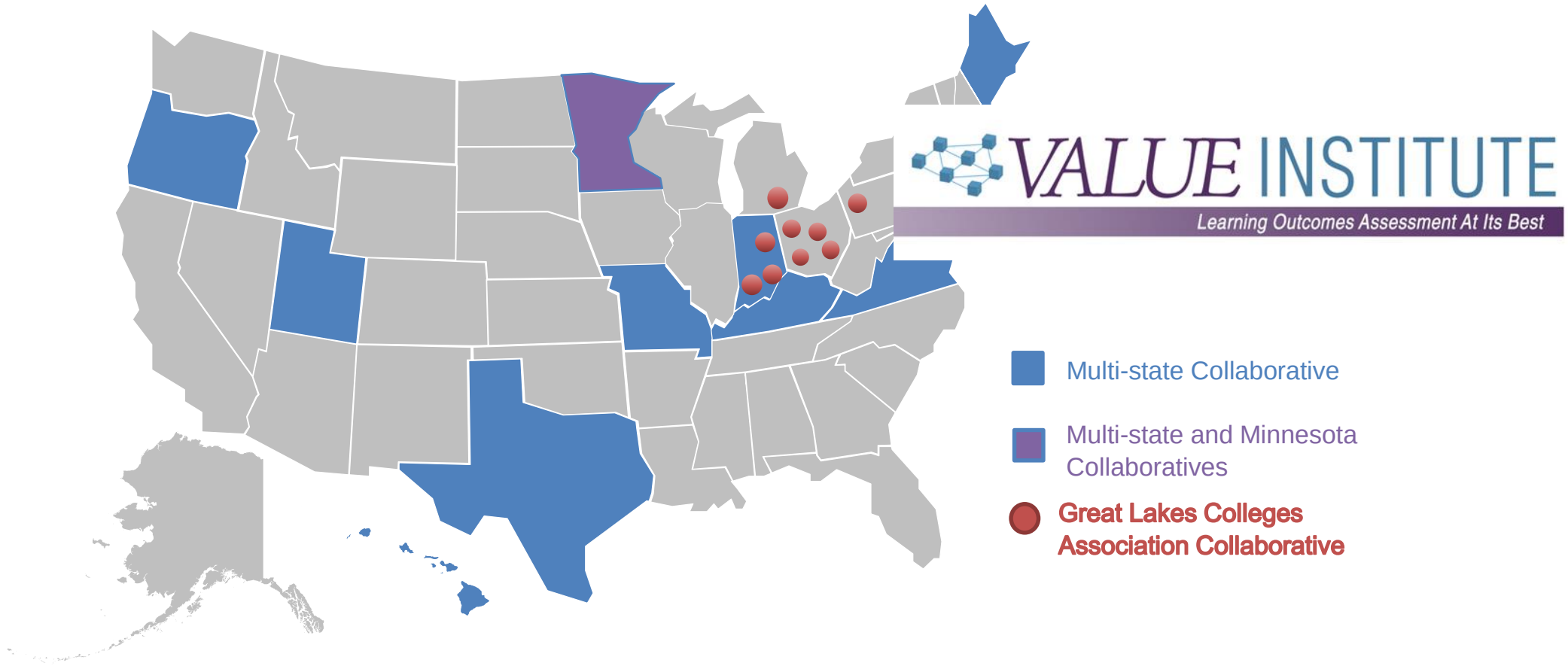
Levels

Performance Descriptors

VALUE
Valid Assessment of Learning in Undergraduate Education

AAC&U Association of American Colleges and Universities

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



MSC Consortium: Overall Data

Critical Thinking	N	Kentucky	N	MSC	Over/Under
Pilot 2015 Year Average	0	0	1527	1.81	--
Demonstration 2016 Year Average	192	1.93	2896	1.79	Over
Refinement 2017 Year Average	120	1.44	3155	1.90	Under
Quantitative Literacy	**N**	**Kentucky**	**N**	**MSC**	**Over/Under**
Pilot 2015 Year Average	212	2.28	2240	2.22	Over
Demonstration 2016 Year Average	174	2.68	1363	1.98	Over
Refinement 2017 Year Average	114	0.95	1231	1.47	Under
Written Communication	**N**	**Kentucky**	**N**	**MSC**	**Over/Under**
Pilot 2015 Year Average	85	2.60	2694	2.40	Over
Demonstration 2016 Year Average	325	2.42	2855	2.32	Over
Refinement 2017 Year Average	209	2.24	3000	2.12	Over

MSC - Quantitative Literacy*

	2015			2016			2017		
Rubric Criterion	**Inst. A**	**Inst. B**	**Inst. C**	**Inst. A**	**Inst. B**	**Inst. C**	**Inst. A**	**Inst. B**	**Inst. C**
Interpretation	2.38	1.30	1.15	3.18	2.03	0.70	3.53	2.09	0.70
Representation	2.28	2.04	1.85	3.13	1.68	0.80	3.55	2.53	0.80
Calculation	1.99	2.77	0.00	3.31	1.58	1.3	N/A	N/A	N/A
Application/Analysis	2.19	1.26	1.05	2.93	1.72	0.80	3.28	1.78	0.80
Assumptions	1.3	0.68	0.60	1.99	1.59	0.60	1.59	0.78	0.60
Communication	2.04	1.17	1.07	3.08	2.38	0.80	3.53	2.09	0.80
Average	2.03	1.54	0.95	2.94	1.83	0.83	3.10	1.85	0.74

**Numbers are fictitious*

Lessons Learned from VALUE/MSC

- Context or landscape is important
- Local data are critical
- Data need deconstruction/disaggregation at local level
- Interdisciplinary/integrative experience is required to attain high quality levels associated with graduation
- What faculty/educators do is foundational to achieve quality student learning

VALUE Embraces Imperfection as Part of the Learning Process

"Never Let the Perfect Get in the Way of the Good"

Customizing rubrics to support course and program delivery and development

Brian Frank (with work by Natalie Simper, Jake Kaupp, and Jill Scott)
Queen's University

Assignment

VALUE Rubric

	Capstone 4	Milestone 3	Milestone 2	Benchmark 1
Criteria 1				
Criteria 2				
Criteria 3				

Will results be:
Authentic
Traceable
Reliable
Useful for course
Useful for program
Common understanding

VALUE Rubric

	Capstone 4	Milestone 3	Milestone 2	Benchmark 1
Criteria 1				
Criteria 2				

Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly.

Assignment

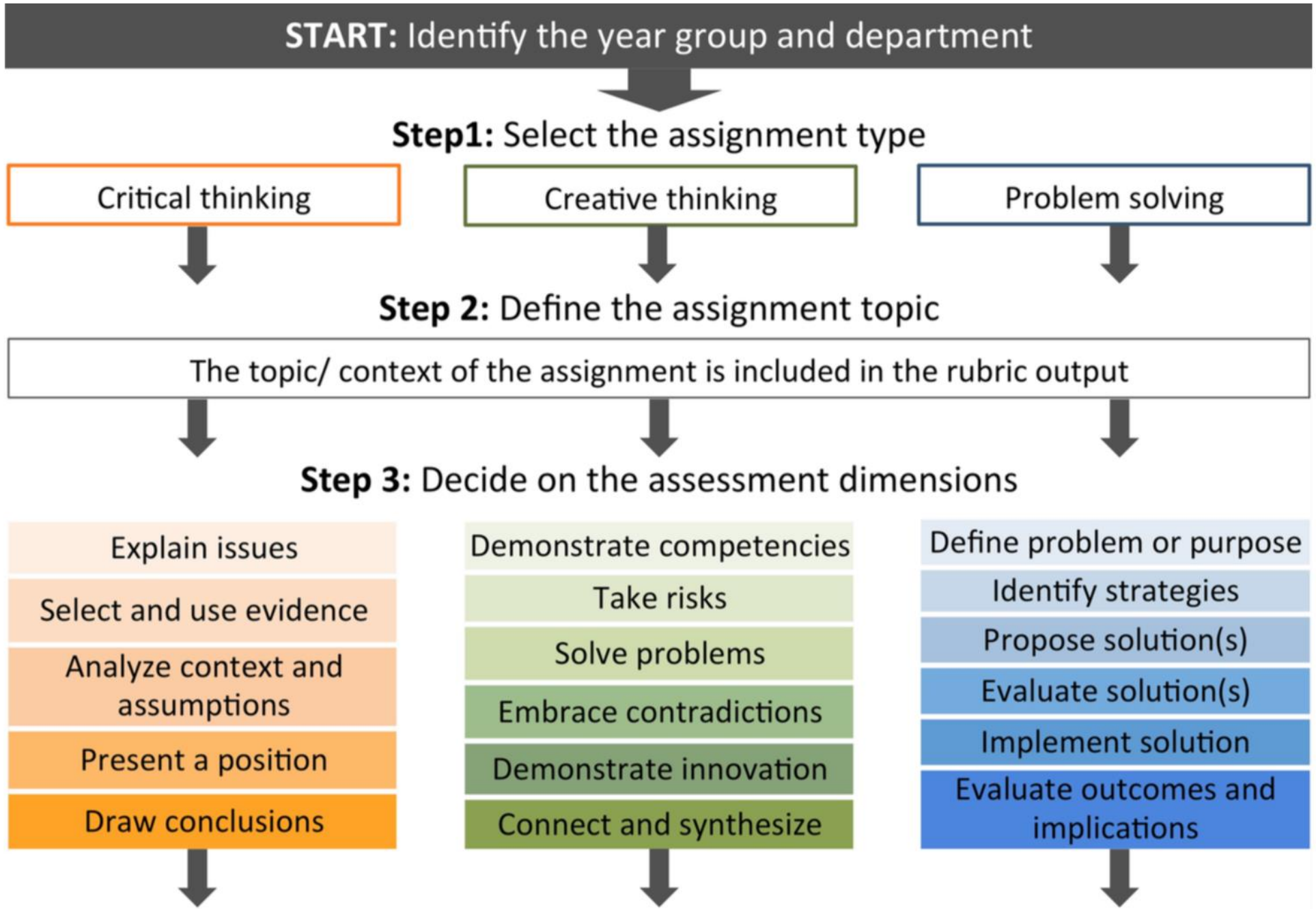
Engineering design	Draws well-supported conclusions that meet the problem need. Evaluates validity and confidence of model and conclusions.
Indigenous issues in Nursing	Succinctly and clearly describes the learning that has occurred integrating course content/readings into analysis; depth of insight demonstrated.

Adapting the Critical Thinking VALUE Rubric

	Capstone 4
Explanation of issues	Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.
Evidence Selecting and using information to investigate a point of view or conclusion	Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.
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.
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).
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.

Criteria	Excellent (5)	Adequate (3-4)	Weak (1-2)	Mark
Explanation of racism issues Explains how racial discrimination has been experienced by FN peoples; Critically considers and clearly articulates examples of what racism has occurred	Identifies and succinctly articulates the key factors of each example, without lengthy repetition of the story; demonstrates depth of understanding of the factors.	Articulates the examples without repeating the story; major points highlighted.	Provides a basic list of examples	5 Total
Students Position Introduction: Relevancy and clarity of why the student chose the three examples/areas of racism	Clearly and succinctly describes the key factors to be discussed and what was compelling about these situations. Described issues are stated clearly and comprehensively.	Describes the context of the examples/stories chosen with some relevancy provided. States purpose/focus of the paper.	Provides basic information on the examples/stories chosen and focus/intent of the paper. Lacks focus/clarity for issues of coherence or vagueness.	2.5 Total
Inclusion and Diversity Argues a specific position and analyses 2 to 4 things the student can do to influence future health care practices	Discusses in depth, how they could in their professional practice influence an agency/ others. Thoughtful application to concepts and new learning evident.	Discusses actions they could consider in their professional practice; making links to course content and readings	Lists specific things they could do. Discussion not well developed	5 Total
Evidence Provides evidence of the impact of Racism; Interprets and analyses the impact of racism on individuals/ families/ communities	Elaborates on the broader consequences of racism; Others' points of view are synthesized within your position; includes impacts felt at the time of its occurrence, as well as critically evaluating lingering future impacts.	Describes the impact on individuals and their families, plus the community at large	Lists the impact on specific individuals	5 total
Conclusions and Outcomes Your view of the learning: Did anything surprise you? What did you learn and why?	Succinctly and clearly describes the learning that has occurred integrating course content/readings into analysis; depth of insight demonstrated.	Describes specific things learned with some insight provided; some links made to course content/readings.	Lists specific things they have learned; discussion not well developed.	5 Total
Influence of context & assumptions Influence on future nursing care approach: Analyses 2 to 4 key areas of how this could affect nursing care with patients/clients	Discusses in depth, future implications for personal interactions, professional practice and health care agency/organization function; thoughtful application of concepts and new learning evident.	Discusses future implications for personal interactions and professional practice with good application of new learning evident.	Discusses future implications for personal awareness and interactions; basic application provided.	5 Total
Writing style Adherence to APA, grammar, sentence/paragraph structure	Demonstrates organization and clarity of ideas. Writing contains few grammatical/formatting errors and is presented with proper formatting and style; an easy and enjoyable read.	Few/minor errors in APA formatting; few/minor errors in grammar/sentence/ paragraph structure.	Major or frequent errors in APA formatting; major or frequent errors in grammar/sentence/ paragraph structure; difficult to read.	2.5 Total

http://www.queensu.ca/qloa/assessment-tools/basics/


START: Identify the year group and department
Step1: Select the assignment type
Critical thinking
Creative thinking
Problem solving
Step 2: Define the assignment topic
The topic/ context of the assignment is included in the rubric output
Step 3: Decide on the assessment dimensions
Explain issues
Select and use evidence
Analyze context and assumptions
Present a position
Draw conclusions
Demonstrate competencies
Take risks
Solve problems
Embrace contradictions
Demonstrate innovation
Connect and synthesize
Define problem or purpose
Identify strategies
Propose solution(s)
Evaluate solution(s)
Implement solution
Evaluate outcomes and implications

Step 4: Select the assessment components

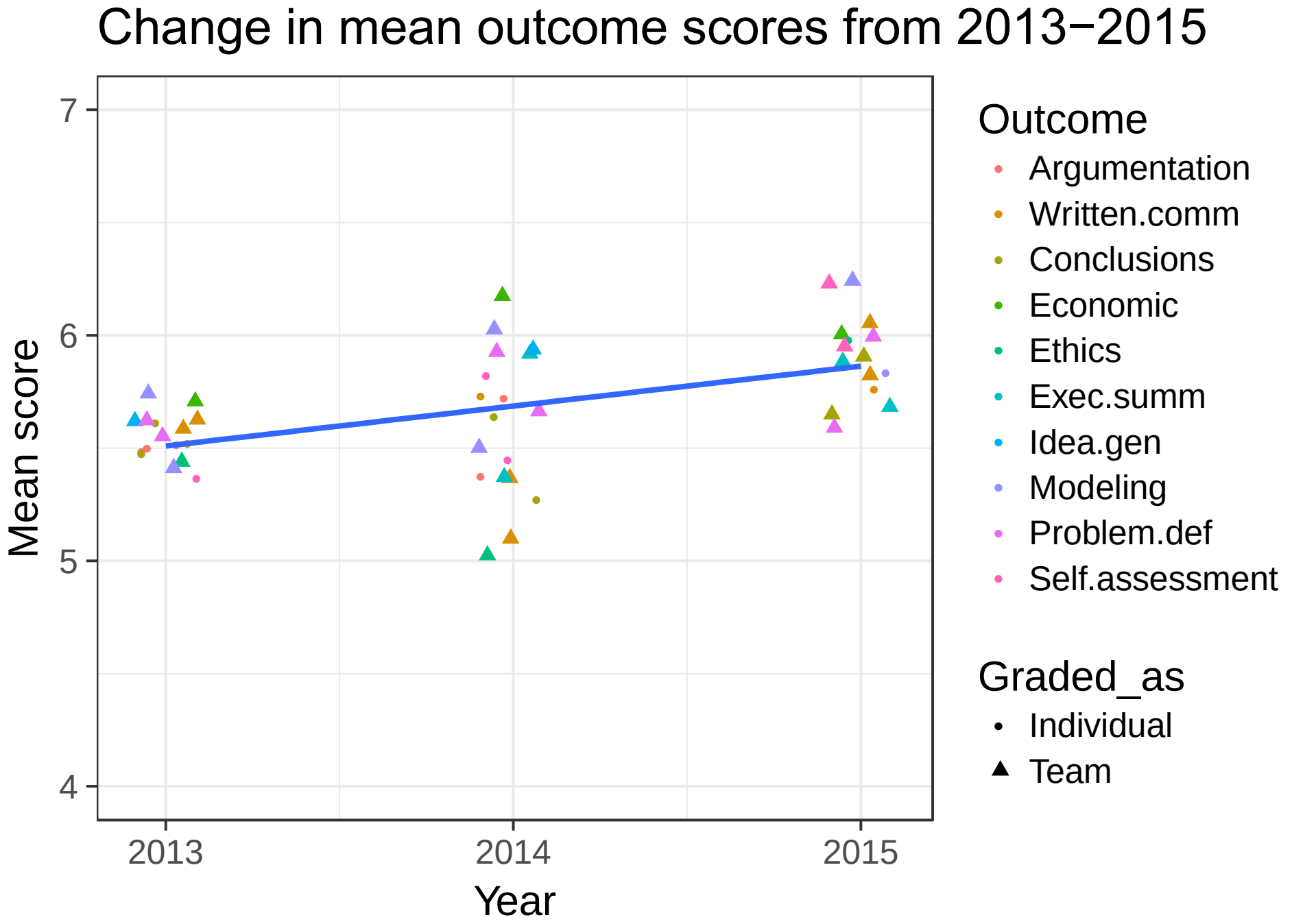
Issues; Scientific claims; Omissions; Inaccuracies; Fundamental concepts	Patterns; Formats; Techniques; Models; Skills	Problem; Purpose
Validity of information; Propaganda; Bias; Point of view; Reliability of information	Possibilities; Styles; Strategies; Methods; Arrangements	Strategies; Approaches; Procedures
Context; Relationships; Assumptions; Mainstream and alternate viewpoints; Perspectives	Design; Composition; Proposal; Solution; Prototype	Design; Product; Solution; Structures; Hypothesis
Options; Method; Hypothesis; Argument; Position	Alternatives; Contradictions; Variances; Positions; Perspectives	Impacts; Context; Logical arguments; Feasibility issues; Confounds/ sources of error
Outcomes; Implications; Conclusions; Perspectives; Consequences	Form; Claim; Question; Idea; Product	Skills; Approaches; Models; Formats; Formulas
	Links; Relationships; Connections	Ethical problems; Cultural perspectives; Historical perspectives; Implications; Consequences

Rubric automatically generated

Step 5: Edit rubric scaffold to semantic preferences and finalize

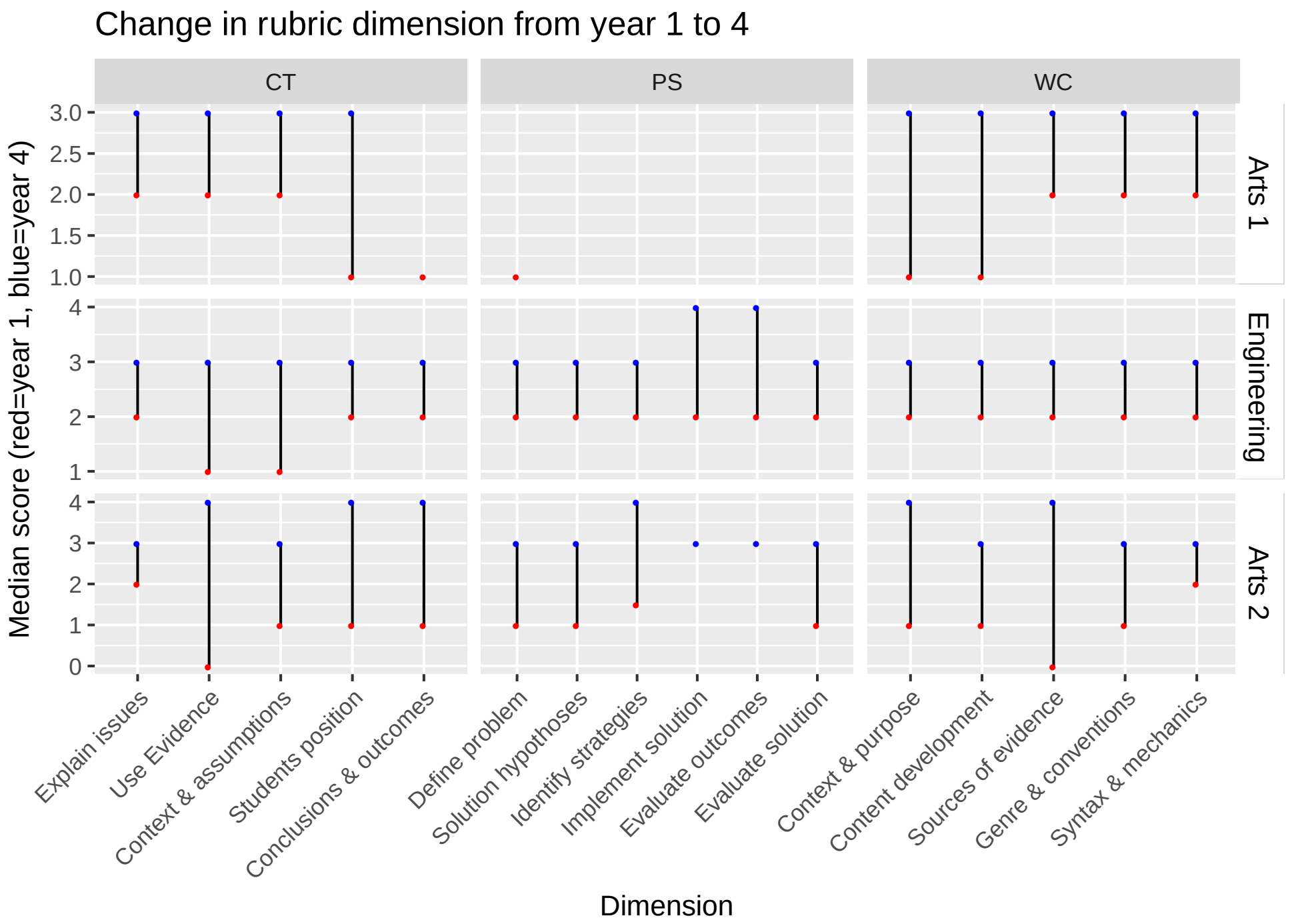
Year group selected on the BASICS rubric builder	VALUE rubric level				
	Not Demonstrated	Benchmark 1	Milestone 2	Milestone 3	Capstone 4
First year (Freshman)	Developing	Accomplished	Advanced		
Second year (Sophomore)		Developing	Accomplished	Advanced	
Third and fourth year (Junior and Senior)			Developing	Accomplished	Advanced

Course data can be used for improvement



Frank, B., Simper, N., & Kaupp, J. (2017). Formative feedback and scaffolding for developing complex problem solving and modelling outcomes. *European Journal of Engineering Education*

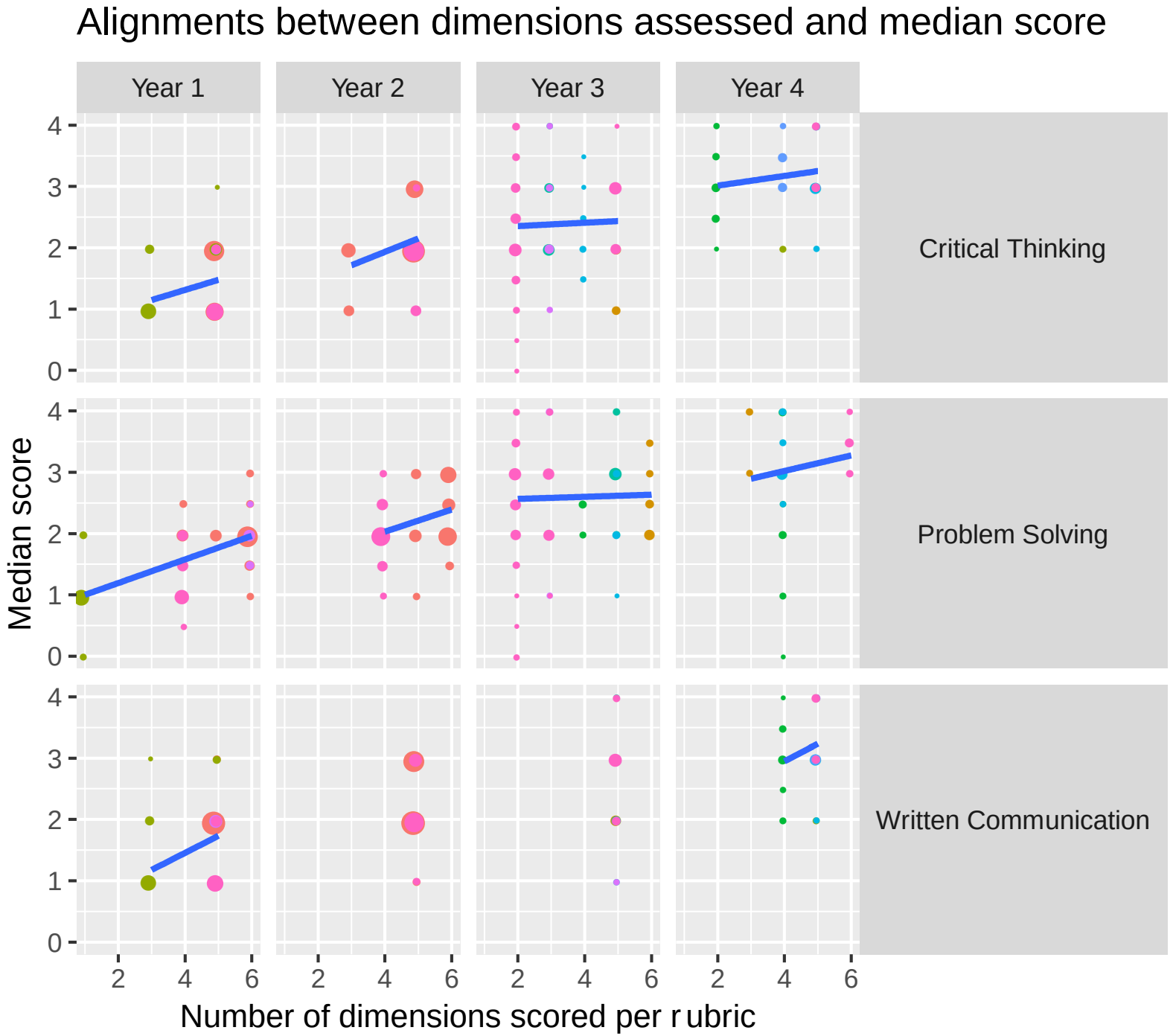
Data can *hint* at where to *consider* program redevelopment



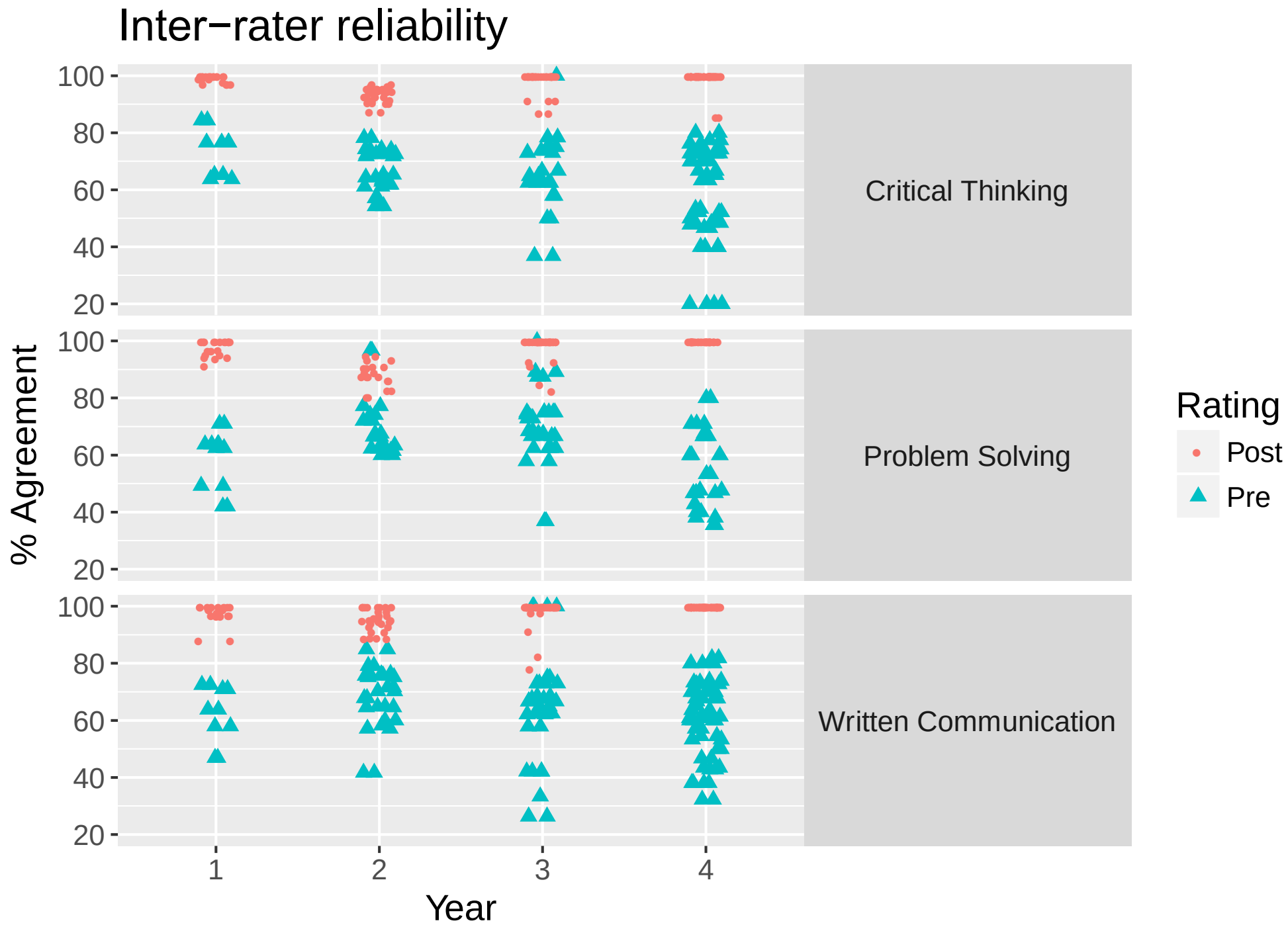
4th year

1st year

Students do better at demonstrating a competency when their assignments align with multiple VALUE dimensions



Grader calibration and training is critical.



Key issues for implementing

1. **Shift instructor thinking from norm-referenced grading**
2. **Calibration and training are key**
3. **Support instructors in carefully crafting authentic tasks within the discipline that support learning and align with program-wide outcomes.**
4. **Be cautious about over-trusting initial results. E.g. variations between tasks decreases confidence in results**

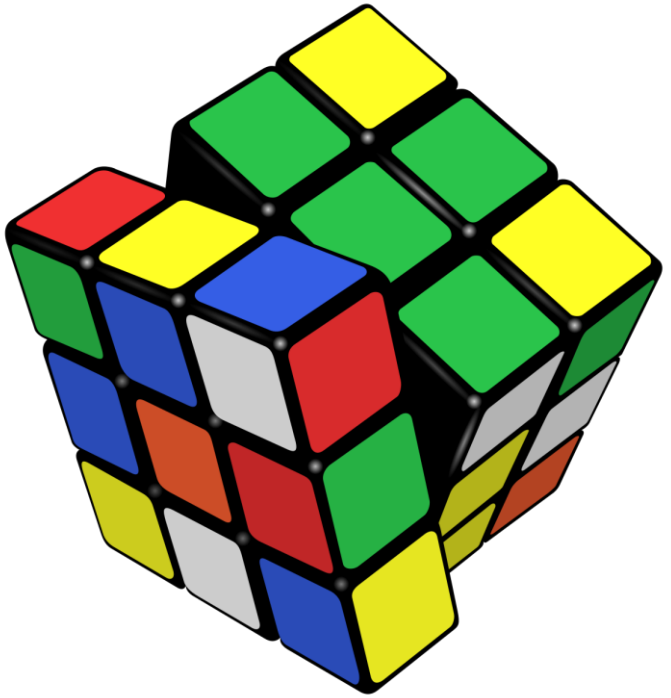
"… [to] make comparisons about students' performance…, greatly increase the number of tasks that are sampled for each student…"[1]

[1] Hathcoat, J. D., & Penn, J. D. (2012). Generalizability of Student Writing across Multiple Tasks: A Challenge for Authentic Assessment. Research & Practice in Assessment, 7, 16–28.

Rubric adaptation: How to customize your assessment tools

Group discussion:

We invite you to type your questions into the "chat" box.



Slides from the presentations and a recording of the webinar will be posted to HEQCO's website later this week.

Save the date for our next webinar!

Designing for competence:
American case studies in competency-based education

Thursday, May 17, 2018
12:00 – 1:00 PM EDT

Dr. Aaron Brower
Provost & Vice- Chancellor
University of Wisconson-Extension

Dr. Laurie Dodge
Vice Chancellor, Institutional Assessment & Planning
Vice Provost
Brandman University