CSCU TAP FIRC Executive Summary:
Rubric Development for Measuring Framework30 Student Learning Outcomes (SLOs)
Fall 2023

Introduction

In Fall 2022 through Spring 2023, the Transfer Articulation Policy (TAP) Framework Implementation and Review Committee (FIRC), a committee composed of elected faculty from across the CSCU system, guided faculty from across the system through the process of developing rubrics to measure the Student Learning Outcomes (SLOs) for the Framework30 common core of the TAP degrees. Rubric development was the second part of a two-part revision process. The SLOs were revised and approved system-wide in the Spring of 2022.

In Spring 2022, FIRC conducted a system-wide faculty vote in which each institution was asked to choose between the existing (2012) SLOs and the New Proposed (2022) SLOs. All of the revised SLOs from 2022 were approved, and replaced the 2012 SLOs as of Fall 2022. For the complete list of the new 2022 SLOs, please see this document.

Summary of the Process to Create Rubrics for Measuring TAP Framework30 SLOs Adopted Spring 2023

In the Fall of 2022, the Framework Implementation and Review Committee (FIRC) began working in earnest to create rubrics intended to measure the new system-wide adopted and approved Student Learning Outcomes (SLOs). Committee members worked in subgroups organized by SLO, and subgroup work was guided by agreed upon principles, which you will find below as Appendix A. The agreed upon principles incorporated best practices for assessment rubric development. A component of the guiding principles was an agreed upon rubric template to bring consistency amongst the rubric products of the workgroups.

FIRC used its Dec. 2022 meeting to internally showcase and go over drafts of the rubrics. Thereafter, academic interest groups with faculty representation from across the colleges were provided an opportunity to review and provide feedback. At the beginning of the Spring 2023 semester, and in the spirit of shared governance, the rubrics were disseminated to all of the CSCU campuses, relevant offices, and administrators to solicit input and feedback.

We requested that feedback be provided by March 3rd, so that we would be able to leverage our March 10th meeting to incorporate it. To ensure all feedback was addressed as we worked on revisions, feedback was requested to be received no later than March 10th. We continued to address feedback and make revisions through the April 14th FIRC meeting. (See Appendices D-L for rubric feedback submitted to FIRC and FIRC's responses.) Shortly thereafter, we redistributed the rubrics as revised to the twelve legacy Community Colleges and the five CSCU four-year institutions for a vote to endorse or not endorse the rubrics to be used as assessment tools for the Framework30. The institutional votes were due by the end of the Spring 2023 semester, at which time they were compiled. (See Appendix C for Rubric Voting Procedures.)

Results of System-wide Faculty Vote:
All rubrics received more than a majority of votes of endorsement from the institutions who cast a vote. All rubrics are therefore endorsed, and as of Fall 2023, the new rubrics (see Appendix B) will replace the rubrics that had been developed in 2012 at the CSCU system-wide level.

Detailed Vote Tally

Community College Campuses

Asnuntuck CC

Asnuntuck has endorsed the rubrics unanimously except for Historical Knowledge.

Capital CC

Capital's Senate of 12 voting members has unanimously endorsed all 9 rubrics, and our CEO approved their decision.

Gateway CC

Nothing Reported

Housatonic CC

All rubrics passed unanimously without feedback to General Education, Curriculum Committees and our Campus Senate

Manchester CC

MCC Academic Senate voted to approve the new SLO rubrics by unanimous voice vote.

Middlesex CC

The MxCC governance structure has endorsed the rubrics as a package.

Naugatuck Valley CC

The Curriculum and Educational Affairs Committee at NVCC elected to not bring the rubrics up as a discussion item at their meetings. There is NO action to report; no discussion and no vote.

Norwalk CC

Nothing Reported

Northwestern CT CC

Nothing Reported

Quinebaug Valley CC

QVCC's Academic Senate met today (4/24/2023) and considered the rubrics as currently proposed by FIRC. QVCC did not reject the rubrics (this was not one of the voting choices officially given to college bodies) but it voted to not affirm the rubrics [following the governance bylaws of the Academic Senate as it existed prior to the CSCC merger in July of 2023]

Three Rivers CC

Both the TRCC Faculty Council and curriculum committee (Campus Educational Content Committee) unanimously endorsed all of the rubrics. The College Senate endorsed all rubrics.

Tunxis CC

All rubrics endorsed without feedback.

Four-year schools

CCSU

All rubrics approved by faculty curriculum body except for quantitative reasoning

ECSU

Nothing Reported

SCSU

The undergraduate Curriculum Forum (UCF) has approved all rubrics.

WCSU

Nothing Reported

Charter Oak
Charter Oak State College Academic Council
The final product was an endorsement of all rubrics YES = 6 NO = 2.

Unrelated FYI – I discussed the concern about the future of FIRC – then senate made and passed this motion: MOTION: The CCSU Faculty Senate strongly supports the continuation of FIRC. (Latour/Jackson). Discussion. Motion passed.

Appendix A: Guiding Principles for Rubrics to Assess TAP Framework30 SLOs Adopted Spring 2022

To increase the likelihood that a rubric will measure the knowledge and skills it is supposed to, it must align to the Student Learning Outcome (SLO) it is designed to measure. Since our SLOs are unique to our college, we will need to design new rubrics to measure them. While we might consult existing rubrics such as those developed by the AAC&U for ideas, no existing rubric would provide a valid measure of achievement in terms of our SLOs. When creating rubrics for the Framework30 SLOs, please keep in mind the following guiding principles:

a. The SLOs are designed to measure general education outcomes. As such, the learning level expected in a course within the general education curriculum will be different from that expected from a student majoring in that discipline. Rubrics should be calibrated to describe knowledge skill-levels addressed in introductory-level courses (courses that earn college credit, but that have no college-level prerequisites).
b. Rubrics across all SLOs will be standardized to the same 4-point scale, which will be decided upon by FIRC collectively as a committee.
c. The SLOs may be mapped to different courses in different disciplines. Rubrics must be broad enough to accommodate potential assignments from relevant and foreseeable discipline areas.
d. Rubrics must accommodate different types of assignments.
    i. Foreseeable Assignments:
        1. Papers
        2. Projects
        3. Exams (Essay/Multiple Choice)
        4. Presentations
        5. Case studies
        6. Exhibits or showcases
    ii. How will those artifacts be stored?
        1. Hard copy
        2. Digital copy
        3. LMS capture
        4. Video
        5. Audio
        6. Photo

Structure of a Matrix Rubric: Scale and Dimensions[1]

The scale demonstrates the levels of performance, which are represented in the column of a matrix style rubric. So, to create the best set of rubrics with the highest likelihood of adoption, we must agree on one set of performance levels. The following was agreed upon through a vote at the October 14, 2022 FIRC meeting:

- Exceeds Expectations (Level 4), Meets Expectations (Level 3), Meets Some Expectations (Level 2), Does Not Meet Expectations (Level 1)

The dimensions are represented in the rows of a matrix rubric. They are the SLOs, broken down into assessable units. The dimension descriptions (rubric criteria) are given in each of the remaining cells of the rubric. They are criteria that are stated as objectively as possible, based on evidence of learning that is present (or missing) in student work.

Gen Ed Assessment vs Grading:

These rubrics are not designed for grading student work. Instead, they are meant to assess whether a student has met a general education learning outcome and at what level.

As you Develop the SLO Rubrics:

- Separate the SLOs into discrete dimensions.
- The dimensions will each have criteria that represent what we would want to see operationalized from the SLOs at different levels of performance. I.e., the evidence you would look for in an artifact to support the conclusion that the outcome has been learned and at what level.
- For many SLOs, each outcome will necessitate its own dimension. For some SLOs (particularly those that contain the word "and" to name multiple skills or knowledge sets), individual outcomes may need to be divided into multiple rows to account for all skills and knowledge covered by the outcome. The overall gist of each dimension should be identified by giving it a brief title of a single word or phrase (Stevens & Levi, 2013).
- For each dimension, develop measurable performance criteria by considering what we would expect to see in a student artifact that would demonstrate the highest level of performance and an artifact demonstrating the lowest. Let those two bookend benchmarks guide your development of the middle two levels of performance. Remember, the rubric may be used across many disciplines, so descriptions that are more objective and broader in scope will create a more flexible rubric with wider applicability. Some aspects of the assignment may be missing entirely or too difficult to identify and measure at the lowest end of performance.
- The rubric criteria should characterize student work expected for the score. Including descriptions of elements of student work expected at each performance level, based on your teaching experience, is a priority to increase reliability of scoring (Oosterhof 2001). The dimension criterion should be sufficiently distinct across the scale so that faculty are easily able to discern where in the scale an artifact falls for that dimension. Also, ensure there is no overlap between adjacent criteria, so that only one criterion of each dimension

[1] See pp. 7-14 of Stevens and Levi (2013) for more detail on this topic.

will best describe student work at each level of performance. Sometimes this means acknowledging that student performance may be characterized by the descriptors of that level or may contain some aspects of the next higher level, but not all.

- Check for any responses from FIRC that specified certain faculty input would be incorporated into the rubric for a given set of SLOs.

Sources and Additional Rubric Reading:

Oosterhof, A. 2001. Classroom Applications of Educational Measurement, 3rd ed. Prentice-Hall: Upper Saddle River, NJ. (See, e.g., pp. 224-226 for differentiating between levels and the need to describe student work typically seen at each level.)

Stevens, D.D. & Levi, A.J. 2013. Introduction to Rubrics: An Assessment Tool to Save Grading Time, Convey Effective Feedback, and Promote Student Learning, 2nd ed. Stylus Publishing: Sterling, VA. (See, e.g., for definitions of scale and dimensions, and tips on designing new rubrics.)

Wortham, S.C. 2001. Assessment in Early Childhood Education, 3rd ed. Prentice-Hall: Upper Saddle River, NJ. (See, e.g., criteria for rubrics on p. 162.)

Stages of Developing a Rubric using Written Communication SLO as an example:

Written Communication SLOs:

1. Craft a thesis-driven, supported, logically organized argument that applies conventions of English appropriate to the audience, purpose, and context. (3 dimensions)
2. Interpret and evaluate credible sources and integrate ideas from those sources in an ethical manner with appropriate documentation. (1 dimension)

Example Rubric Development, Stage 1: Create Dimensions for the Rubric, Converting Key Elements of SLOs into Dimension Descriptions:

	SCALE (LEVELS OF PERFORMANCE)				
		Exceeds Expectations (4)	**Meets Expectations (3)**	**Meets Some Expectations (2)**	**Does Not Meet Expectations (1)**
DIMENSIONS	**Craft an Argument**	Argument is organized around a controlling thesis, argument is consistently developed in a logically organized manner, and assertions are regularly supported by appropriate evidence.			
	Respond to Rhetorical Situations	The audience, purpose, and context of the work are appropriately addressed.			
	Apply Conventions of English (*appropriate for audience and purpose*)	Grammar, spelling, and tone are appropriate to the specified audience,			

		purpose, and context of the work.			
	Use Sources Ethically (*integrate into work, document the use*)	Credible, appropriate sources have been chosen to support ideas, methods, and/or evidence; source information is clearly interpreted in a manner that fits the purposes it serves in the argument; sources are treated ethically and documentation of sources are provided in a manner appropriate to the audience, purpose, and context of the work.			

Example Rubric Development, Stage 2: Identify expectations to look for in student work, defining them at the highest level and forecasting how the lower levels will differ. *In this example, we still need to revisit feedback from faculty and responses from FIRC.

SCALE (LEVELS OF PERFORMANCE)					
		Exceeds Expectations (4)	**Meets Expectations (3)**	**Meets Some Expectations (2)**	**Does Not Meet Expectations (1)**
DIMENSIONS	**Craft an Argument**	Student writing **consistently** crafts a logical argument that: • Presents a controlling thesis. • Is supported by evidence, and • Organized appropriately and uses transitions.	Student writing **frequently** crafts a logical argument that…	Student writing **sometimes** crafts a logical argument that…	Student writing **rarely** crafts a logical argument that… [Rarely / Does not… N.B.: Sometimes the lowest scale level is written in terms of what is lacking, since so little of what is expected is present in student work that merits this designation.]
	Respond to Rhetorical Situations	Student writing **consistently** responds to rhetorical situations: • Addresses the purpose of the writing task. • Engages a specific audience. • Adapts writing to the situation. • Uses a variety of appeals (e.g., logical, ethical,	Frequently…	Sometimes…	Rarely…

		emotional) to influence the audience.			
	Apply Conventions of English (*appropriate for audience and purpose*)	Student writing **consistently** demonstrates application of language conventions: • Appropriate diction, tone and formality. • Application of conventions of American English, including: mechanics, usage, grammar, syntax, and spelling.	Frequently….	Sometimes….	Rarely…
	Use Sources Ethically (*integrate into work, document the use*)	Student writing **consistently** demonstrates: • Inclusion of credible and appropriate sources. • Comprehension of main ideas and supporting details. • Analysis of and response to complex writing. • Summary, paraphrase, and	Frequently…	Sometimes…	Rarely…

		quotation of others' ideas differentiated from student's own. • Appropriate identification of sources.			

Written Communication SLOs:

1. Craft a thesis-driven, supported, logically organized argument that applies conventions of English appropriate to the audience, purpose, and context.
2. Interpret and evaluate credible sources and integrate ideas from those sources in an ethical manner with appropriate documentation.

	Exceeds Expectations (4)	**Meets Expectations (3)**	**Meets Some Expectations (2)**	**Does Not Meet Expectations (1)**
Craft an Argument	Student writing crafts an argument that: • Includes a **sophisticated** controlling thesis. • Is **well** supported by evidence, and • Is organized appropriately, using **cohesive** transitions.	Student writing crafts an argument that: • Includes a **controlling** thesis. • Is **supported** by evidence, and • Is organized appropriately, using **appropriate** transitions.	Student writing crafts an argument that: • Includes a **generally controlling** thesis. • Is **weakly** supported by evidence, and • Is organized **somewhat** appropriately, using **some** transitions.	Student writing crafts a logical argument that: • Does **not** include a controlling thesis. • Is **weakly** supported by evidence, and • Is organized in a way that is **hard to follow**, **rarely** uses transitions.
Respond to Rhetorical Situations	Student writing responds to rhetorical situations: • **Effectively** addresses the purpose of the writing task. • **Effectively** engages a specific audience.	Student writing responds to rhetorical situations: • **Adequately** addresses the purpose of the writing task. • **Adequately** engages a specific audience.	Student writing responds to rhetorical situations: • **Inadequately** addresses the purpose of the writing task. • **Inadequately** engages a specific audience.	Student writing responds to rhetorical situations: • **Does not** address the purpose of the writing task. • **Does not** engage a specific audience.
Apply Conventions of English (*appropriate for audience and purpose*)	Student writing demonstrates **clearly** expressed ideas that are appropriate to the audience through: • **Appropriate** and **effective** diction and tone. • **Accurate and effective** language choices such as conventions of English (e.g. grammar, syntax, usage, and spelling).	Student writing demonstrates **clearly** expressed ideas that are appropriate to the audience through: • **Appropriate** diction and tone. • **Effective** language choices such as conventions of English (e.g. grammar, syntax, usage, and spelling).	Student writing demonstrates **somewhat clearly** expressed ideas that are appropriate to the audience through: • **Somewhat appropriate** diction and tone. • **Somewhat effective** language choices such as conventions of English (e.g. grammar, syntax, usage, and spelling).	Student writing demonstrates **poorly** expressed ideas that are **rarely** appropriate to the audience through: • **Inappropriate** diction and tone. • **Ineffective** language choices such as conventions of English (e.g. grammar, syntax, usage, and spelling).
Use Sources Ethically (*integrate into work, document the use*)	Student writing demonstrates: • Identification of sources using appropriate citation methods **precisely**. • Evaluates and analyzes credible and appropriate sources **effectively**. • Summary and/or paraphrase, and quotation of others' ideas and supporting details, **clearly** differentiated from student's own.	Student writing demonstrates: • Identification of sources using appropriate citation methods **accurately**. • Evaluates and analyzes credible and appropriate sources **adequately**. • Summary and/or paraphrase, and quotation of others' ideas and supporting details, **consistently** differentiated from student's own.	Student writing demonstrates: • Identification of sources using appropriate citation methods **partially**. • Evaluates and analyzes credible and appropriate sources **superficially**. • Summary and/or paraphrase, and quotation of others' ideas and supporting details, **inconsistently** differentiated from student's own.	Student writing demonstrates: • Identification of sources using appropriate citation methods **rarely**. • Evaluates and analyzes credible and appropriate sources **incompletely**. • Summary and/or paraphrase, and quotation of others' ideas and supporting details, **not** differentiated from student's own.

Oral Communication

1. Create and express oral messages appropriate to the audience, purpose, and context.
2. Employ Communication theories and strategies to convey an oral message.
3. Critically analyze messages.

	Exceeds Expectations (4)	**Meets Expectations (3)**	**Meets Some Expectations (2)**	**Does Not Meet Expectations (1)**
Explain or use language appropriate for the audience, topic, and context.	The speaker uses language that is **exceptionally** clear, vivid, and appropriate.	The speaker uses language that is **reasonably** clear, vivid, and appropriate.	The speaker uses language that is **unclear** and **not rhetorically appropriate**.	The speaker uses language that is **unclear** and **inappropriate or offensive**.
Explain or use non-verbal behaviors that support the verbal message.	The speaker demonstrates **exceptional** posture, gestures, bodily movement, facial expressions, eye contact, and use of dress.	The speaker demonstrates **acceptable** posture, gestures, facial expressions, eye contact, and use of dress.	The speaker **sometimes** demonstrates **acceptable** posture, gestures, facial expressions, eye contact, and dress.	The speaker **does not** use **acceptable** posture, gestures, facial expressions, eye contact, and dress.
Provide supporting materials appropriate for the audience, topic, and context.	The speaker uses supporting material that is **exceptional** in quality and variety.	The speaker uses supporting material that is **appropriate** in quality and variety.	The speaker **sometimes** uses supporting material that is **appropriate** in quality and variety.	The speaker uses **no** supporting material, or supporting material is **inappropriate** in quality and variety.
Employ a Communication theory or strategy.	Theoretical framework is **clearly** presented with an **in-depth** explanation of the concept.	Theoretical framework is presented with a **summary** explanation of the concept.	Theoretical framework is presented with a **partial** explanation of parts of the concept.	**No evidence** of use of a theoretical framework is presented.
Use a Communication theory or concept to analyze messages.	Theoretical framework is **comprehensively** related to the message.	Theoretical framework is **moderately** related to the message.	Theoretical framework is **minimally** related to the message.	**No explanation** is provided to relate a theoretical framework to the message.

Scientific Reasoning

1. Apply scientific methods to investigate phenomena of the physical or natural world through prediction, observation or experimentation, data acquisition, and evaluation.
2. Represent and report scientific data symbolically, graphically, or numerically.
3. Interpret and evaluate scientific data in order to draw reasonable and logical conclusions.

	Exceeds Expectations (4)	**Meets Expectations (3)**	**Meets Some Expectations (2)**	**Does Not Meet Expectations (1)**
Apply Scientific Methods	Student investigates phenomena of the physical or natural world through a **consistently careful** application of scientific methods, including: • hypothesis or prediction* • observation or experimentation with appropriate procedures or strategies • data acquisition, and • evaluation.	Student investigates phenomena of the physical or natural world through a **frequently careful** application of scientific methods, including: • hypothesis or prediction* • observation or experimentation • data acquisition and • evaluation.	Student investigates phenomena of the physical or natural world through a **sometimes careful** application of scientific methods, including: • hypothesis or prediction* • observation or experimentation • data acquisition and • evaluation.	Student investigates phenomena of the physical or natural world through a **rarely careful (or complete neglect of)** application of scientific methods, including: • hypothesis or prediction* • observation or experimentation • data acquisition and • evaluation.
Represent and Report Scientific Data	Scientific data are **consistently** represented and reported symbolically, graphically, or numerically with accuracy, in a way that provides for clear interpretation.**	Scientific data are **frequently** represented and reported symbolically, graphically, or numerically with accuracy, in a way that provides for clear interpretation.**	Scientific data are **sometimes** represented and reported symbolically, graphically, or numerically with accuracy, in a way that provides for clear interpretation.**	Scientific data are **rarely (or not at all)** represented and reported symbolically, graphically, or numerically with accuracy, in a way that provides for clear interpretation.**
Interpret and Evaluate Scientific Data	The student **consistently** interprets and evaluates scientific data in a **methodical, thorough** manner that **ensures** resulting conclusions are: • logical **and** reasonable • the student may also reflect on the conclusions to ensure they are reasonable, or identify a cause of inaccuracy or unreasonableness, if applicable.	The student **frequently** interprets and evaluates scientific data in a **methodical** manner that **allows for** conclusions that are: • logical **and** reasonable • the student may also reflect on the conclusions to ensure they are reasonable.	The student **sometimes** interprets and evaluates scientific data in a **methodical** manner that allows the student to draw conclusions that are: • logical **and** reasonable.	The student **does not** interpret and evaluate scientific data in a **methodical** manner. This means the student draws **unsupported** conclusions, or conclusions that **may not be**: • logical **or** reasonable.

*Prediction is an accurate anticipation for potential experimental outcomes or observations.

**Clear communication of the data is facilitated by inclusion of units, an appropriate level of precision, and when appropriate, features such as descriptive titles, labels, legends, and keys. When appropriate, data are ranked, grouped, or tabulated.

Scientific Knowledge and Understanding

1. Communicate scientific knowledge using appropriate terminology, and representations, models, or analysis.
2. Describe how a scientific explanation or theory is refined or replaced.
3. Evaluate the quality of a scientific claim on the basis of its source, and the logic or methods used to generate it.

	Exceeds Expectations (4)	Meets Expectations (3)	Meets Some Expectations (2)	Does Not Meet Expectations (1)
Communicate Scientific Knowledge	Student **consistently** communicates scientific knowledge **clearly and accurately**, using appropriate terminology and representations, models, or analysis.	Student **frequently** communicates scientific knowledge **clearly and accurately**, using appropriate terminology and representations, models, or analysis. May include a few minor inaccuracies.	Student **sometimes** communicates scientific knowledge **accurately**. The use of scientific terminology in context is vague or unclear, and representations, models, or analysis include some inaccuracies.	Student **rarely** communicates scientific knowledge **accurately**, using terminology in a vague or inappropriate manner and representations, models, or analysis lack clarity and/or accuracy.
Describe How a Theory is Refined or Replaced	Student describes how a scientific explanation or theory is refined or replaced through a **detailed, thorough** accounting of historical developments or the processes used to generate new theories or refine existing theories. (Processes may include methodologies, observations or logic used to establish confidence in the changes.)	Student describes how a scientific explanation or theory is refined or replaced through a **full, yet summary** accounting of historical developments or the processes used to generate new theories or refine existing theories. (Processes may include methodologies, observations or logic used to establish confidence in the changes.)	Student describes how a scientific explanation or theory is refined or replaced through a **brief, summary** accounting of historical developments or **incomplete reference** to the processes used to generate new theories or refine existing theories. (Processes may include methodologies, observations or logic used to establish confidence in the changes.)	Student describes how a scientific explanation or theory is refined or replaced through an **incomplete, summary** accounting of historical developments or **token reference** to the processes used to generate new theories or refine existing theories. (Processes may include methodologies, observations or logic used to establish confidence in the changes.)
Evaluate a Scientific Claim	Student evaluates a scientific claim with a **detailed explanation** of the logic or methods used to generate it, using published academic sources to interpret and evaluate the claim. If applicable, any parts of the claim that are unsubstantiated are identified and **sound explanation** is offered for why the claim does not meet scientific criteria.	Student evaluates a scientific claim with a **summary explanation** of the logic or methods used to generate it, using credible sources to interpret and evaluate the claim. If applicable, any parts of the claim that are unsubstantiated are identified and **summary explanation** is offered for why the claim does not meet scientific criteria.	Student evaluates a scientific claim with a **brief, summary explanation** of the logic or methods used to generate it, **with little reference to** its source. If applicable, any parts of the claim that are unsubstantiated are identified and an **incomplete explanation** is offered for why the claim does not meet scientific criteria.	Student evaluates a scientific claim with an **incomplete or unclear explanation** of the logic or methods used to generate it, **without reference to** its source or with reference to an **unreliable source**. If applicable, any parts of the claim that are unsubstantiated are either **not identified** or only discussed with a **token reference to scientific concepts**.

Social and Behavioral Sciences

1. Explain social, organizational, psychological, political, economic, historical, geographic, or cultural elements that influence and are influenced by individuals or groups.
2. Describe theories and concepts, or research methods used to investigate social or behavioral phenomena.
3. Identify and describe ethical issues pertaining to social contexts and phenomena.*

	Exceeds Expectations (4)	**Meets Expectations (3)**	**Meets Some Expectations (2)**	**Does Not Meet Expectations (1)**
Explain Influence	Student **consistently** provides **detailed, thorough** explanations of how social, organizational, psychological, political, economic, historical, geographic, or cultural elements **influence and are influenced by** individuals or groups.	Student **frequently** provides explanations of how social, organizational, psychological, political, economic, historical, geographic, or cultural elements **influence and are influenced by** individuals or groups.	Student **sometimes** provides explanations of how social, organizational, psychological, political, economic, historical, geographic, or cultural elements **influence and are influenced by** individuals or groups. Explanations are often **summary** and **do not show the bidirectional nature of influence**.	Student **rarely** provides explanations of how social, organizational, psychological, political, economic, historical, geographic, or cultural elements **influence and are influenced by** individuals or groups. Explanations are often **vague or incomplete** and **do not show the bidirectional nature of influence**.
Describe Theories & Concepts or Research Methods	Student **consistently** offers **thorough, detailed, and accurate** descriptions of theories and concepts, or research methods used to investigate social or behavioral phenomena.	Student **frequently** offers **thorough, accurate** descriptions of theories and concepts, or research methods used to investigate social or behavioral phenomena. (Some descriptions may be general in nature or have minor inaccuracies.)	Student **sometimes** offers **thorough, accurate** descriptions of theories and concepts, or research methods used to investigate social or behavioral phenomena. (Descriptions are often general in nature and may have minor inaccuracies.)	Student **rarely** offers **accurate** descriptions of theories and concepts, or research methods used to investigate social or behavioral phenomena. (Descriptions are often general in nature or missing key elements and may have major inaccuracies.)
Identify and Describe Ethical Issues*	Student **accurately** identifies and gives a **detailed** description of ethical issues* that pertain to a social context or phenomenon, **highlighting potentially problematic elements** within the situation, **or identifying possibilities for resolution**.	Student **accurately** identifies and gives a **summary** description of ethical issues* that pertain to a social context or phenomenon, **briefly highlighting potentially problematic elements** within the situation, **or briefly identifying possibilities for resolution**.	Student **vaguely** identifies and gives a **summary** description of ethical issues* that pertain to a social context or phenomenon, **offering vague reference to potentially problematic elements** within the situation, **or brief identification of unrealistic or inappropriate possibilities for resolution**.	Student **vaguely** identifies and gives a **partial** description of ethical issues* that pertain to a social context or phenomenon, **offering only a token mention of potentially problematic elements** within the situation, **or brief identification of unrealistic or inappropriate possibilities for resolution**.

*Examples of ethical issues include but are not limited to: how economic policies affect social classes or marginalized groups; consumer behavior and governmental control over regulation; what counts as ethical or unethical research methods conducted with human subjects; codes of ethics used by specific disciplines in social & behavioral sciences; and issues pertaining to systemic inequality, structural oppression, and intersectional justice.

Quantitative Reasoning

Given an authentic context or everyday life situation:

1. Convert relevant information into an appropriate mathematical form, such as an equation, graph, diagram, table, or words.
2. Use arithmetic, algebra, geometry, statistics, or logic to solve related problems.
3. Interpret the significance, reasonableness, or implications of calculated results.

	Exceeds Expectations (4)	**Meets Expectations (3)**	**Meets Some Expectations (2)**	**Does Not Meet Expectations (1)**
Convert Information into Mathematical Form	Given an authentic context, information is **consistently** converted into an appropriate mathematical form* with accuracy, in a way that provides for clear interpretation.**	Given an authentic context, information is **frequently** converted into an appropriate mathematical form* with accuracy, in a way that provided for clear interpretation.**	Given an authentic context, information is **sometimes** converted into an appropriate mathematical form* with accuracy, in a way that somewhat provides for clear interpretation.**	Given an authentic context, information is **rarely** converted into an appropriate mathematical form* with accuracy, in a way that does not provide for clear interpretation.**
Use Math to Solve Problems	Arithmetic, algebra, geometry, statistics, or logic is **consistently** used to solve problems correctly in an authentic context with appropriate: • procedures or strategies • precision • units (few to no inaccuracies in above)	Arithmetic, algebra, geometry, statistics, or logic is **frequently** used to solve problems correctly in an authentic context with appropriate: • procedures or strategies • precision • Units (may include minor inaccuracies in above)	Arithmetic, algebra, geometry, statistics, or logic is **sometimes** used to solve problems correctly in an authentic context with appropriate: • procedures or strategies • precision • units (may include major or minor inaccuracies in above)	Arithmetic, algebra, geometry, statistics, or logic is **rarely** used to solve problems correctly in an authentic context with appropriate: • procedures or strategies • precision • Units (may include major inaccuracies in above)
Interpret Calculated Results	The significance, reasonableness, or implications of calculated results are **consistently** interpreted with: • accuracy • appropriate level of precision • appropriate level of detail to communicate ideas clearly (few to no inaccuracies in above)	The significance, reasonableness, or implications of calculated results are **frequently** interpreted with: • accuracy • appropriate level of precision • appropriate level of detail to communicate ideas clearly (may include minor inaccuracies in above)	The significance, reasonableness, or implications of calculated results are **sometimes** interpreted with: • accuracy • appropriate level of precision • appropriate level of detail to communicate ideas clearly (may include major or minor inaccuracies in above)	The significance, reasonableness, or implications of calculated results are **rarely** interpreted with: • accuracy • appropriate level of precision • appropriate level of detail to communicate ideas clearly (may include major inaccuracies in above)

*Mathematical forms information may be converted to include, e.g., equation, graph, diagram, table, or words.

**Clear communication is facilitated by inclusion of units, and when appropriate, features such as descriptive titles, labels, legends, and keys. When appropriate, data are ranked, grouped, or tabulated.

Continuing Learning/Information Literacy

1. Use current, relevant technologies to identify and solve problems, make informed decisions, communicate, or create information.
2. Evaluate the authority, relevance, and accuracy of various sources of information to address issues that arise in academic, professional, or personal contexts.
3. Identify ethical issues related to access or use of information, such as the impact on security, privacy, censorship, intellectual property, or the reliability of information.

	Exceeds Expectations (4)	**Meets Expectations (3)**	**Meets Some Expectations (2)**	**Does Not Meet Expectations (1)**
Use Technologies	Student identifies and solves problems, makes informed decisions, communicates or creates information in a way that **knowledgeably and skillfully integrates appropriate** current, relevant technologies.	Student identifies and solves problems, makes informed decisions, communicates or creates information in a way that **adequately integrates appropriate** current, relevant technologies.	Student identifies and solves problems, makes informed decisions, communicates or creates information in a way that **displays minimal use of appropriate** current, relevant technologies.	Student identifies and solves problems, makes informed decisions, communicates or creates information in a way that **displays token use of appropriate** current, relevant technologies, or uses **outdated or unsuitably matched** technologies.
Evaluate Sources for Use in Academic, Professional, or Personal Contexts	Sources used **consistently** show appropriate: • authority (high quality) • relevance (sources align to the topic) • accuracy.	Sources used **frequently** show appropriate: • authority (quality may be questionable or unclear) • relevance (sources align to the topic) • accuracy (minor inaccuracies).	Sources used **sometimes** show appropriate: • authority (quality may be questionable or unclear) • relevance (sources may not align to the topic) • accuracy (minor inaccuracies or major inaccuracies).	Sources used **rarely** show appropriate: • authority (quality may be questionable or unclear) • relevance (sources may not align to the topic) • accuracy (minor inaccuracies or major inaccuracies).
Identify Ethical Issues*	Ethical issues related to access or use of information are identified in a way that makes key features **clear**, and are described in a **detailed** manner.	Ethical issues related to access or use of information are identified in a way that makes **some** key features **clear**, and are described in a **summary** manner.	Ethical issues related to access or use of information are identified in a way that makes key features **somewhat clear**, and are described in a **cursory** manner.	Ethical issues related to access or use of information are identified in a way that **does not** make key features **clear**, and descriptions are vague and hard to understand.

*Ethical issues may include but are not limited to: the impact on security, privacy, censorship, intellectual property, or the reliability of information. See the Annotated List of Topics to Illustrate Ethical Issues for SLO 3 for links to sources and articles, and to illustrate how wide the range of appropriate topics is.

Arts and Humanities SLOs:

1. Identify and describe key features of visual works, performances, texts, or other artifacts in relation to a context (such as historical, geographical, social, political, cultural, linguistic, or aesthetic).
2. Apply key concepts, terminology, techniques or methodologies in the analysis or creation of visual works, performances, texts, or other artifacts.

	Level 4: Exceeds Expectations	**Level 3: Meets Expectations**	**Level 2: Meets Some Expectations**	**Level 1: Does Not Meet Expectations**
Identify and describe key features of works*	Appropriate features of works are **consistently** identified and are described **thoroughly,** with **uniform accuracy.**	Appropriate features of works are **frequently** identified and are described **summarily,** with **accuracy.**	Appropriate features of works are **sometimes** identified and are described **summarily,** with **minor inaccuracies.**	Appropriate features of works are **rarely** identified and/or are described **summarily,** with **major inaccuracies.**
Relate works to context	**Several** key features of works are related to an appropriate context using **detailed** evidence: • for how the context shapes or influences the work • **and** for how the work responds to or influences the context	**Some** key features of works are related to an appropriate context using **strong partial** evidence: • for how the context shapes or influences the work • **and** for how the work responds to or influences the context	**A few** key features of works are related to an appropriate context using **cursory** evidence: • for how the context shapes or influences the work • **or** for how the work responds to or influences the context	Key features of works are **not** related to an appropriate context, the evidence is **vague**, or the connection between the work and its context is **unclear**.
Analyze or Create Works	The work is analyzed or created in a way that **clearly** and **consistently** makes explicit: • Key concepts or • Terminology or • Techniques or • Methodologies	The work is analyzed or created in a way that **frequently** makes explicit: • Key concepts or • Terminology or • Techniques or • Methodologies	The work is analyzed or created in a way that **sometimes** makes explicit: • Key concepts or • Terminology or • Techniques or • Methodologies	The work is analyzed or created in a way that **does not** make explicit: • Key concepts or • Terminology or • Techniques or • Methodologies

*Works include: visual works, performances, texts, or other artifacts.

**Appropriate contexts include: historical, geographical, social, political, cultural, linguistic, or aesthetic.

Historical Knowledge and Understanding SLOs:

1. Define and interpret primary and secondary historical sources.
2. Explain and evaluate the influence of historical agency (race, class, gender, region/location, or belief system) in the context of defined periods.

	Exceeds Expectations (4)	**Meets Expectations (3)**	**Meets Some Expectations (2)**	**Does Not Meet Expectations (1)**
Define and Interpret Primary and Secondary Historical Sources	Primary and secondary sources are **consistently** identified appropriately and distinguished from each other, and are interpreted with **precise**, **detailed** language that clarifies the **content, context and potential limitations** of the source.	Primary and secondary sources are **frequently** identified appropriately and distinguished from each other, and are interpreted with language that clarifies the **content, context and potential limitations** of the source.	Primary and secondary sources are **sometimes** identified appropriately and distinguished from each other, and are interpreted with language that clarifies the **content** of the source.	Primary and/or secondary sources are not used, or primary and secondary sources are **rarely** identified appropriately and distinguished from each other, and are interpreted with language that **inadequately** describes the **content** of the source.
Explain and Evaluate the Influence of Historical Agency*	In the context of defined periods, historical agency is **consistently** explained, evaluated and used to draw informed conclusions with appropriate: • detail to contextualize the defined period • supporting evidence to characterize historical agency • critical analysis of historical agency and its influence on the context.	In the context of defined periods, historical agency is **frequently** explained, evaluated and used to draw informed conclusions with appropriate: • detail to contextualize the defined period • supporting evidence to characterize historical agency • critical analysis of historical agency and its influence on the context.	In the context of defined periods, historical agency is **sometimes** explained, evaluated and used to draw informed conclusions with appropriate: • detail to contextualize the defined period • supporting evidence to characterize historical agency • critical analysis of historical agency and its influence on the context.	In the context of defined periods, historical agency is **rarely** explained, evaluated and used to draw informed conclusions with appropriate: • detail to contextualize the defined period • supporting evidence to characterize historical agency • critical analysis of historical agency and its influence on the context.

* Historical agency: race, class, gender, region/location, or belief system.

Feedback Outcomes:

First and foremost, FIRC sincerely thanks each of the CSCU institutions for their participation in the revision of the Framework30 SLOs last year, and the rubrics intended to assess said SLOs this academic year. *The feedback was rich and truly created a better-quality work product*. *These rubrics were created using a methodical process and guiding principles based on established best practices*, and then were further shaped and refined to fit the values and realities of our classrooms through feedback received from our own institutions. These rubrics will be an important tool *used to assess the Framework30*, and this system-wide collaborative work *demonstrates a system of faculty that own their curriculum and the assessment thereof*.

FIRC has worked to address all the feedback from each of the CSCU institutions that sent feedback. Accordingly, in this package, you will find nine (9) feedback response documents that outline what we did with your feedback and why. You will also find the "Rubrics for Vote" document which includes the iteration of the rubrics incorporating your feedback. We are asking you to vote in accordance with the procedures below on the nine rubrics contained therein.

These rubrics, just like the 2022 system-wide approved SLOs, are dynamic and will continue to be reviewed and revised as needed to continuously improve.

Voting Procedures:

FIRC is asking your institution to endorse the rubrics that were developed to measure the system-wide approved TAP Framework30 SLOs as a package. A response from each institution will be solicited by, and should be funneled through, your elected TAP FIRC representative. If you do not have a current FIRC Representative, please contact the current Co-Chairs listed below.

As is customary with voting on TAP matters, if your institution votes to not endorse or abstains from voting, it should send to FIRC a written rationale for the non-endorsing vote/abstention.

In a non-endorsing vote, objections to *individual rubrics* should be identified, with rationale for why the institution is objecting to the rubric in question. Any rubric not expressly mentioned and accompanied by a rationale will be considered to have an endorsement vote.

FIRC members must report the outcome of their institution's vote to FIRC no later than May 26, 2023. The votes will be tallied and sent back to FIRC representatives no later than May 31, 2023.

If you have any questions about the process, please email the TAP FIRC Co-Chairs:

Kauther S. Badr, badrk1@southernct.edu
Joseph C. Berenguel, JBerenguel@acc.commnet.edu

Arts and Humanities SLOs:

1. Identify and describe key features of visual works, performances, texts, or other artifacts in relation to a context (such as historical, geographical, social, political, cultural, linguistic, or aesthetic).
2. Apply key concepts, terminology, techniques or methodologies in the analysis or creation of visual works, performances, texts, or other artifacts.

Asnuntuck CC

There is general concern about the subjective language. [FIRC has designed rubrics that may be used in a holistic manner, drawing upon the instructor's expertise within their discipline as well as their familiarity with the range of work students tend to submit. Words like "consistently," "frequently," "sometimes" and the like are included to recognize that students apply skills and knowledge in an incomplete fashion, and how often and/or thoroughly they apply the knowledge is often the means by which we note differences in performance.]

Capital CC

Assessment Team and C-DAC:
A&H: Looks good "as is," no suggestions for revision. [Assessment Team and C-DAC, and C-DAC further recommends elimination of the word "strong" in the dimension description for row 2 scale level 3, because the phrase "strong partial" creates confusion about whether the performance described in level 4 or level 3 is actually higher. Eliminating the word "strong" will allow for a clear progression of skills across the levels for row 2.] [Thank you for ensuring the language in the rubric is unambiguous. We have eliminated the term "strong partial" in favor of "partial."]

Gateway CC

Housatonic CC

Manchester CC

Middlesex CC

Naugatuck Valley CC

Several, few, some- terms are too vague to differentiate. Suggest you tie these to a number. [In keeping with allowing instructors to use whichever of their assignments address the criteria of the SLOs, FIRC can't specify certain numbers of occurrences to

recommend, as different assignments would call for different parameters. Faculty are encouraged to draw upon their professional expertise in the discipline and their familiarity with student work to determine placement of student work into appropriate categories.]

Norwalk CC

Northwestern CT CC

Quinebaug Valley CC

Three Rivers CC

Tunxis CC

From fine art and photo department: no feedback

CCSU

ECSU

SCSU

WCSU

Charter Oak

Academic or Professional Group

Continuing Learning/Information Literacy SLOs:

1. Use current, relevant technologies to identify and solve problems, make informed decisions, communicate, or create information.
2. Evaluate the authority, relevance, and accuracy of various sources of information to address issues that arise in academic, professional, or personal contexts.
3. Identify ethical issues related to access or use of information, such as the impact on security, privacy, censorship, intellectual property, or the reliability of information.

Asnuntuck CC

From Library Director:

"Exceeds Expectations" for Outcome #1:

Student identifies information needs, breaking complex questions into well scoped queries, and solves problems, assesses gaps/weaknesses in the information gathered and makes informed decisions, matches information needs and search strategies to appropriate technologies and search tools, communicates or creates information in a way that knowledgeably and skillfully integrates appropriate current, relevant technologies. [This learning outcome is intended to be flexible enough to be used as a technological literacy learning outcome, so the descriptors should be broad enough to accommodate that type of assignment, as well as an information literacy-focused assignment.]

"Exceeds Expectations" for Outcome #2:

Sources used consistently show a nuanced and skillful understanding of the context and construction of the concepts of authority, relevance, and accuracy, as appropriate to the field of study.

"Exceeds Expectations" for Outcome #3:

Student's work displays a nuanced and skillful understanding of ethical issues related to information access, creation, and/or use in a way that makes key features clear and are described in a detailed manner.

Footnote for Outcome #3:

Ethical issues may include but are not limited to: the impact on security, privacy, censorship, intellectual property, the reliability of information, and the use of artificial intelligence (AI). [The Information Literacy Team also suggested adding "use of artificial intelligence (AI) to the footnote to illustrate promising topics for ethical issues. We have added AI to the list.]

Capital CC

From the Assessment Team and C-DAC:
CL/IL: Looks good "as is," with one suggestion for revision: We suggest "casual reference" or "cursory reference" as a replacement for "token reference," as not all faculty may be clear on what is meant by the phrase. [Assessment Team and C-DAC, with the caveat that C-DAC advocates specifically for "casual use" to replace "token use."] [Others have also expressed (in this rubric and other rubrics being developed) that the word "token" is oblique and may not be uniformly interpreted by faculty. We have applied your suggestion to the revised rubric.]

From the Dept. of Soc. & Behavioral Sciences:
CL/IL: We support the rubric in its current form "as is," with the exception that more clarity is needed in row 2, specifically to rephrase the first bullet point in level 3 to "authority (quality may occasionally be questionable or unclear)" and the first bullet point in level 2 to "authority (quality may sometimes be questionable or unclear)." [Thank you for your suggested clarification of the language in the descriptors. We have applied it to the revised rubric.]

[*Note: 3 members of the department noted that the CL/IL SLOs are good and appropriate for what we want students to be able to do, but the College and Career Success course is taken in a student's first semester of college, and the CL/IL skills of the SLO may be at too high a level for them to attain upon entry into college, so CCS 1001 may not be the appropriate place in the curriculum to map CL/IL to.] [FIRC does not have control over the vetting of courses for the Framework30. This issue would likely need to be taken up with the Curriculum Congress of the new Governance structure for CT State.]

Gateway CC

Housatonic CC

Manchester CC

Middlesex CC

Naugatuck Valley CC

No comments

Norwalk CC

Northwestern CT CC

Quinebaug Valley CC

Three Rivers CC

Tunxis CC

From our librarians:
Given the way this standard is currently defined, this rubric is acceptable. However, I understand the importance of accuracy of sources but find the definition of accuracy to be lacking in this rubric. Who is to evaluate the "accuracy" of sources. Is this subjective? [Faculty could use their judgment on accuracy of sources.]

CCSU

ECSU

SCSU

Same feedback as Academic or Professional Group below

WCSU

Charter Oak

Academic or Professional Group

Information Literacy Team (CSCU Librarians) recommendations to FIRC rubric for Continuing Learning/Information Literacy

> *Recommended edits are in bold and underlined.*
>
> Changes to Rubric Performance Descriptors:
>
> *Learning Outcome #1*. Use current, relevant technologies to **ethically** identify and solve problems, make informed decisions, communicate, or create information. [FIRC solicited feedback on the learning outcomes in the spring of 2022 and incorporated feedback before the SLOs were voted in by the CSCU institutions. At this stage we are soliciting feedback on the rubrics designed to assess the newly accepted SLOs.]

Use Technologies

Exceeds Expectations: Student identifies and solves problems, makes informed decisions, communicates or creates information in a way that **ethically**, knowledgeably, and skillfully integrates appropriate current and relevant technologies.

Meets Expectations: Student identifies and solves problems, makes informed decisions, communicates or creates information in a way that adequately **and ethically** integrates appropriate current and relevant technologies.

Meets Some Expectations: Student identifies and solves problems, makes informed decisions, communicates information in a way that displays minimal **ethical** use of current and relevant technologies.

Does Not Meet Expectations: Student identifies and solves problems, makes informed decisions, communicates or creates information a way that displays token **ethical** use of appropriate current, relevant technologies, uses outdated or unsuitably matched technologies, **or does not use technologies in an ethical way**.

[Learning Outcome #3 addresses ethical issues in CL/IL. There are also practical limitations to being able to assess ethical use of technology in CL/IL SLO 1. For example, much of the use of technology may not be visible or transparent in terms of determining ethical use.]

Learning Outcome #2: Evaluate Sources for Use in Academic, Professional, or Personal Contexts

Exceeds Expectations: Sources used **are always credited** and consistently show appropriate…

Meets Expectations: Sources used are **usually credited** and frequently show appropriate…

Meets Some Expectations: Sources used are **occasionally credited** and sometimes show appropriate…

Does Not Meet Expectations: Sources used are **never or almost never credited** and rarely show appropriate…

[WC SLO #2 covers the ethics of using sources, including citation, and Transfer Ticket students are required to take two courses mapped to WC. To include the crediting of sources in the rubric for CL/IL SLO #2 would take the focus off the skill of evaluating sources.]

Learning Outcome #3. Identify ethical issues related to access or use of information, such as the impact on security, privacy, censorship, intellectual

property, the reliability of information, **and the use of artificial intelligence (AI).** [FIRC solicited feedback on the learning outcomes in the spring of 2022 and incorporated feedback before the SLOs were voted in by the CSCU institutions. At this stage we are soliciting feedback on the rubrics designed to assess the newly accepted SLOs.]

* Ethical issues may include but are not limited to: the impact on security, privacy, censorship, intellectual property, the reliability of information, **and the use of artificial intelligence (AI).** [A library director also suggested adding "use of artificial intelligence (AI) to the footnote to illustrate promising topics for ethical issues. We have added AI to the list.]

Historical Knowledge and Understanding SLOs:

1. Define and interpret primary and secondary historical sources.
2. Explain and evaluate the influence of historical agency (race, class, gender, region/location, or belief system) in the context of defined periods.

Asnuntuck CC

Looks good as is, though I'm concerned that there may have been a misunderstanding about whether we were changing outcomes or rubric. I'd love another week to clarify.
[Revisions to the SLOs were made and voted on during the 2021-2022 AY. This spring we are only working on developing and revising the rubrics that will allow for assessment of the SLOs.]

Capital CC

Assessment Team and C-DAC:
HK: Looks good "as is," no suggestions for revision.

From Dept. of Soc. & Behavioral Sciences:
HK: We support the rubric in its current form "as is," no suggestions for revision.

Gateway CC

Housatonic CC

Manchester CC

Middlesex CC

Naugatuck Valley CC

No comments

Norwalk CC

Northwestern CT CC

Quinebaug Valley CC

Three Rivers CC

Tunxis CC

CCSU

ECSU

SCSU

WCSU

Charter Oak

Academic or Professional Group

Oral Communication SLOs:

1. Create and express oral messages appropriate to the audience, purpose, and context.
2. Employ Communication theories and strategies to convey an oral message.
3. Critically analyze messages.

Asnuntuck CC

My first reaction to the Oral Communication matrix is its split purpose. Note that each column for the first three categories begins with "The speaker," indicating these clearly are intended to be used with a speech artifact. This makes sense for an oral communication rubric and is helpful if we intend to use a single artifact across all Comm courses (though it may present problems for the Interpersonal course, depending on how it is taught). However, the last two categories – those that are theory based – intentionally don't focus on the speaker, so these two rows do not appear to be tied to a speech. This will require all users to employ at least two artifacts to complete this matrix (which is not a bad thing, but I think may go against the intention/vison for CSCU assessment). [The necessity for most classes needing to collect at least two artifacts, or a two-part artifact, is nearly unavoidable, given that students must convey an oral message (SLOs 1 and 2, which are assessed in Rows 1-4 of the revised rubric), and also analyze a message (SLO 3, which is assessed in Row 5 of the revised rubric). Requiring a student critique of classmates' performances is a streamlined way to obtain an artifact for assessing knowledge and skills addressed in Row 5. Alternately, an assignment which requires students analyze oral communications of others (e.g., select and evaluate a videotaped speech available on the Internet) would be able to assess all components in a single assignment.]

The second row – focused on nonverbals – would not be captured by any artifact other than video/photography. I assess nonverbal communication on my grading rubric and teach it in class, but no outside group would be able to double-check student performance without seeing video. [While videotaping student performances is an ideal way to assess, FIRC is not imposing a requirement that artifacts be made available to anyone other than the course instructor for Gen Ed assessment, so a professor who feels comfortable using the rubric to assess nonverbal communication in real time during the student performance would not need to ensure the performance is videotaped.]

The first row assesses audience adaptation, which is a common part of communication education. However, the way this column is written focuses solely on language, which is problematic on multiple levels. Audience adaptation is not just about language as all evidence, ideas and arguments need to be adapted to the situation and audience you are addressing. A focus on "clear, vivid and appropriate" language as the only measure unfairly impacts those student for whom English is a second language/struggle to speak English. [The first three rows of the rubric combined assess audience adaptation. The second row is not quite as obvious in that nonverbal behaviors must support the verbal message, which is understood to be tied to a situation and audience in row 1. The third row assesses supporting materials as they address an audience, topic, and context, including "quality and variety," which includes evidence, ideas and arguments.]

The two theory-based rows are probably intentionally vague to allow a lot of wiggle room, but for me it is too broad. If I had students perform a rhetorical analysis of a speech, then there are endless possibilities for theoretical approaches. But in public speaking we are not using Burkian analyses or quantitative analyses. Perhaps this theory intends to get into the theories of why we use certain speech techniques? However, while a research paper should always explain its approach and ground it in a review of literature, nobody giving a speech takes the time to explain their theory, which is the measuring stick for the 4th row. [We have revised the rubric to assess how well a Communication theory is applied to convey a message, which aligns well with a single artifact/performance that centers on the oral communication of a message.]

A row that is missing is any measure of communication techniques beyond audience adaptation and nonverbals. One of the big differences between an oral communication class versus a class that requires some kind of presentation is that a communication class is focused on improving the techniques of communicating orally. Basic tactics in creating an effective introduction and conclusion, the differences between written and oral citations, the importance of repetition in a speech, etc., are some of the key lessons in an oral communication class that students will hopefully employ later when their history teacher requires them to give a speech at the end of the semester. The history teacher is concerned with the subject matter while the oral communication course is actually teaching communication techniques. This matrix does not try to assess the success of student learning those techniques beyond adaptation and nonverbals. [While Rows 1-3 are specific in assessing audience adaptation and nonverbal communication, the revised Row 4 assesses the application of a Communication theory or strategy along the lines of your examples.]

Lastly, in a bigger picture view, if someone were to quantify "How many of our students meet expectations" we would count the numbers of students in columns one and two, and column four would not meet our expectations. Where would be place those students who fall into column three? Did they do enough to meet the expectations of the course or did they not? [Levels 3 and 4 on the rubric (the two left columns of the scale) represent student work that meets expectations. Students who achieve Levels 2 and 1 (the two right columns on the scale) do not meet expectations.]

(A revised sample rubric was provided and is available from JCB) [We would need to be able to see a copy of the faculty member's rubric to be able to see the feasibility of incorporating elements into the OC rubric.]

Capital CC

OC: [The Assessment Team gave detailed feedback, and C-DAC voted to affirm the Assessment Team's recommendation that the rubric be revised so it aligns to the SLO, which explicitly requires students to convey an oral message. Substituting other types of tasks would not ensure students are meeting the SLO as it was approved.]

The dimension descriptions in the 4th and 5th rows of the rubric don't align with the description of the SLOs that they are meant to assess. In particular, SLO 2 says "convey an oral message," and you can't get around that by explaining how a Communication theory or strategy is used in row 4 of the rubric. Maybe some courses won't be able to be mapped to this set of SLOs. The SLOs themselves convey an expectation that students will be able to convey an oral message, which is an important skill that should not be replaced by explaining how someone else has conveyed an oral message. Any changes made to expand the types of courses that meet the SLOs would need to be done by revising the SLOs themselves, and cannot be addressed in the rubric alone without misaligning it to the SLOs.

For the same reason, the phrase "Explain or" should be omitted from the beginning of Row 2 of the rubric, and the focus should be on using nonverbal behaviors (as the word "demonstrates" conveys in the dimension descriptions), without the option to explain nonverbal behaviors. [The phrase "Explain or" has been removed from rows 1 and 2. Row 1 now reads: "Create oral messages..." and row 2 now reads: "Convey oral messages...."]

The Assessment Team advises that there should be one row to assess SLO 2 and a separate one to completely assess SLO 3. SLO 2 is about using a theory to convey a message, SLO 3 is about using a theory to analyze a message.

Row 4 of the rubric should be designed to address the following question: How well did the student use that theory or strategy to convey a message?
e.g., Level 3: "The theory or strategy is applied appropriately to convey a message."
e.g., Level 2: "The theory or strategy is applied somewhat appropriately to convey a message." [FIRC has incorporated this feedback into row 4 of the rubric.]

OC Rubric Row 5 suggested language to assess analyzing a message:
Level 4: "Theoretical framework is used to **comprehensively** analyze the message." Or, if space allows:
Level 4 alternate wording: "Student performed a **comprehensive** analysis of the message using the theoretical framework."
Level 3: "Student performed an **adequate** analysis of the message using the theoretical framework."
Level 2: "Student performed a **limited** analysis of the message using the theoretical framework."
Level 1: "Student **did not** perform an analysis of the message using the theoretical framework." [FIRC has altered the language of row 5 of the rubric to highlight the performance of the student in analyzing the message, while maintaining an expectation that the analysis will apply a theoretical framework.]

From a faculty member in humanities:
A. It requires at least two artifacts (1 an instance of oral com and, 2 a concept "in-depth" explanation the creation of which could be manufactured/forced to produce) [The SLO requirement that students analyze a message does limit opportunities to

complete assessment with a single artifact. One way to get around that would be to have students create an oral message in which they critique an existing oral message. Another way to cover the analysis SLO within the same assignment would be to make peer feedback a component of the assignment.] and may even require longitudinal collection of many artifacts over time due to the terms "always" and "sometimes" (words that don't seem to work to begin with). [The terms “always” and “sometimes” are meant to acknowledge that student performance is often not perfect, and they may not apply a skill uniformly throughout the same performance.]
B. I would like to see the language inside the 4,3,2,1 boxes overhauled - the choice of verbs and the gradations between levels.

From another faculty member in the humanities:

For the category “Employ a Communication theory or strategy,” the descriptor says, “Theoretical framework is clearly presented with an in-depth explanation of the concept.” My question is why is this rendered “…is clearly presented…” rather than “…is clearly employed”? [FIRC has revised Row 4 to assess how well the Communication theory or strategy has been employed to address the misalignment in the earlier draft.]

Presented can be interpreted as the theory being the subject of the presentation. Employed clarifies that the theory is utilized in the presentation. If that is indeed the intention.

Gateway CC

Housatonic CC

Manchester CC

Oral comm Rubric Feedback – MCC Submitted by individual faculty member

Rubric item 1 and 2: “Explain or use…” I understand the utility of the use of “explain or use” as too often Oral Communication rubrics are developed with the assumption that the only thing that might be assessed is a formal public oral speech, though our teaching of oral communication competence is far broader than this and might include various other forms of oral communication in interpersonal or other contexts. So, sometimes, we might want to assess not only whether a student picks an appropriate topic, but whether this was a matter of luck or whether they have a cognitive awareness of the various issues involved in topic selection. [Examining student thought processes as they plan their work requires an extra reflection assignment, as we discovered with the old Written Communication SLOs. We revised Written Communication not only to streamline it, but to remove the burden of requiring a separate reflection assignment to fully assess the SLOs.] However, in the specific language of the rubric levels the ability to measure an explanation is this cognitive awareness is lost in favor of measures of “use” which don’t tell us whether students understand or can explain their reasoning for the choices they’ve made and makes it necessary to only assess performances of oral

communication rather than an effective understanding of oral communication, and surely both are important. While I do not have specific recommendations at this time, I would suggest the measures in items 1 and 2 be re-evaluated to assure that the ”explain or use” flexibility of the items are not lost. [The “explain or” part of the rubric allows for assignments that circumvent assessment of the parts of SLO 1 which require students to “Create and express oral messages,” and of SLO 2, which requires students to “...convey an oral message.” Revisions to the rubric prioritize the practical and cohesive ability to apply Communication theories and strategies to convey an oral message.]

Rubric item 3: “Provide supporting materials appropriate for the audience, topic, and context. “ While “appropriate” is used in the outcome itself in a way that is clearly related to the goodness of fit with audience, purpose, and context of a message, in the rubric the term “appropriate” is used in ways that might be mistaken for normatively/culturally appropriate/inappropriate. In order to clarify and maintain the meaning of the use of “appropriate” in the outcome, I would recommend changing “appropriate” in the rubric to “effective”. This covers both that the message has been correctly designed for the audience, purpose and context, but also focuses on the utility or outcome of the message, which is the ultimate arbiter of whether a message has been designed appropriately or not. [We have added the phrase “for the audience, purpose, and context” to modify the word “appropriate” in each occurrence to clarify that we do not intend it to be interpreted in a manner that implies normative or cultural appropriateness.]

Rubric item 4: “Employ a Communication theory or strategy. “ This assesses whether a student has employed a communication theory or strategy in the conveyance of an oral message. There are two ways this could be evidenced by a student. The first is to explicitly name the theory or strategy used in the development of the message, and it appears that the language of the rubric is looking for this explicit “presentation” of that. It is also possible, however, that a student could demonstrate their use of a communication theory or strategy without directly naming it, but by performing an act of communication informed by this theory. For instance, the use of Maslow’s hierarchy of needs could be evidenced by a student using positive and negative motivational statements to appeal to an audience’s desire for security on a number of dimensions like food, housing, etc. The “employment” of Maslow’s hierarchy does not require them to say that they are using it. As a result, I would recommend a modification to the language in the rubric to “Theoretical framework exceptionally/thoroughly/partially/does not informs performance of message.” [Thank you for the suggestion. We have clarified the language of Row 4 in the revised version to emphasize application of the theory or strategy to convey an oral message.]

Rubric item 5: “Use a Communication theory or concept to analyze messages.” The language in the rubric states “Theoretical framework is comprehensively related to the message.” Because this item is measuring how well the theory is applied to the analysis of a message the verb “related” is vague and inaccurate. This might better read “Theoretical framework is applied comprehensively in the analysis of the message(s).” This language should be employed across all levels of assessment for

this item. [Thank you for the suggestion. We have clarified the language of Row 5 in the revised version.]

Middlesex CC

Naugatuck Valley CC

Important that these outcomes measure Oral Communication competency beyond Public Speaking. No changes suggested. [FIRC anticipates that the modest changes made during this revision do not preclude courses other than Public Speaking from being able to use this rubric.]

Norwalk CC

Northwestern CT CC

Quinebaug Valley CC

Three Rivers CC

Tunxis CC

From individual faculty:

Criteria 1 - "Explain or use language appropriate for the audience, topic, and context." I didn't see anything in the levels of that criteria that had to do with explaining language--all of the levels are about demonstrating use of language. In terms of Does Not Meet Expectations, ("The speaker uses language that is unclear and inappropriate or offensive,") this may be problematic because what is offensive to one person may not be offensive to another. [Thank you for alerting us to this. FIRC has removed the phrase "or offensive" from the rubric.] For example, sometimes my students may include a swear in their speech, especially a narrative speech, and while some may find that offensive, others may not. I think it may be also be difficult to differentiate between "rhetorically inappropriate" (2) and "inappropriate." [The words "appropriate" and "inappropriate" in this row are meant to be taken in the context of the larger phrase in the column on the far left: "appropriate for the audience, purpose, and context."]

Criteria 2 - "Explain or use nonverbal behaviors that support the verbal message," here too, I didn't see anything in the levels of that criteria that had to do with explaining nonverbal behaviors--all of the levels are about demonstrating nonverbal behavior. Including the word explain for both criteria 1 and 2 feels awkward. When students do this in peer reviews, they are using a framework to analyze a message, which is

covered by other criteria. [Others have also shared this concern in their feedback. The revised rubric has removed the phrase “Explain or,” thereby addressing this concern.] Criteria 4 - "Employ a communication theory or strategy," the first three levels all have to deal with explaining a theory, not employing it. The only level that deals with this is level (1), "No evidence of use of a theoretical framework is presented." In addition, Employ and Use are synonyms and is covered in Criteria 5 - "Use a Communication theory or concept to analyze messages" so I wonder if we need both 4 and 5. [Others have also pointed out that emphasis needs to be on employing a Communication theory or strategy, rather than explaining it. The revised Row 4 of the rubric reflects our response to this feedback. Row 5 assesses SLO 3, which requires students to analyze a message, which is a separate skill (and different cognitive process).]

- The word exceptional is too vague [FIRC’s intent here is simply to elevate the performance of level 4 above the “appropriate” descriptor in level 3, and “exceptional” serves that purpose.]
- Posture doesn’t seem inclusive for students with disabilities or injuries
- Use of dress is not inclusive. Students should not be made to dress a certain way for class [Thank you for addressing issues of inclusivity. While we had anticipated that some theater classes or business classes may have compelling reasons to include expectations for dress into the performance, it does not need to be addressed in the rubric for the SLOs, so we deleted mention of attire.]

Wording suggestions
Under exceeds expectations: exceptionally clear to engaging; exceptional posture to expressive posture; supporting material include multiple modalities and creative
Meets expectations: reasonably clear to clear; acceptable posture to effective posture
[Thank you for suggesting ways to design the rubric to be more inclusive. Please see how we have incorporated your suggestions into the revised rubric.]

CCSU

ECSU

SCSU

Since we list it as an embedded competency and have a general expectation that the competency can appear in any course regardless of discipline, the FIRC rubric may not work. The last two criteria in particular are tied directly to communication theory, implying that oral communication will be introduced/reinforced in a COM course. This doesn’t match with our embedded competency approach. I’m not sure how we can address this…I’ve been thinking about this for the last several weeks after I met with the Communication TAP Pathway advisory committee. I wish I had a straightforward solution, but I haven’t come up with any…other than eliminating those two criteria from the rubric.

Ideally, our course requirements would match better with the other schools in the system. However, it seems that if Oral Communication stays as an embedded competency there will not be adequate alignment. [A few years ago, FIRC voted to make Oral Communication a Designated Competency upon consolidation into a single community college.]

WCSU

Charter Oak

Academic or Professional Group

Quantitative Reasoning SLOs:

Given an authentic context or everyday life situation:

1. Convert relevant information into an appropriate mathematical form, such as an equation, graph, diagram, table, or words.
2. Use arithmetic, algebra, geometry, statistics, or logic to solve related problems.
3. Interpret the significance, reasonableness, or implications of calculated results.

Asnuntuck CC

For the Quantitative Reasoning in the first column, second row, I would prefer this Arithmetic, Algebra, geometry, statistics, and logic be consistently used……

I switch the word "or" to "and" because it sends a message that if you are teaching quantitative reasoning, you will teach it in the following style: arithmetic, algebra, and stats.

(this is one suggestion from a non-CMAC Math faculty member)

[FIRC has used the word "or" among the different types of math listed in recognition that only one type of math or logic need be used in any particular assignment for that course, and a variety of courses may be mapped to Quantitative Reasoning. While a statistics class may employ problems that require arithmetic or algebra skills in addition to statistics, for example, an algebra course may not cover statistics. Therefore, we have used the word "or" to indicate only one type of quantitative reasoning need be used for this criterion, and the instructor may choose the skill that is appropriate for the course. The use of the word "or" also allows for assessment of the SLOs with a single artifact as a sample of student performance, while the use of "and" would require a portfolio of work and a much more substantial commitment of faculty time.]

The remainder of the Math department is satisfied with CMAC's changes and the current rubric.

Capital CC

From the Assessment Team and C-DAC:
QR: Looks good "as is," no suggestions for revision.

Gateway CC

Housatonic CC

Manchester CC

Middlesex CC

Naugatuck Valley CC

Two comments:

1. We can work with this as written.
2. Some “weird” wording, but it is fine.

Norwalk CC

Northwestern CT CC

Quinebaug Valley CC

Three Rivers CC

Tunxis CC

From faculty:

- In accounting, the point was made that meets some expectations and does not meet expectations is not passing. (From the business department.)
    - Is accounting aligned with QR? (JW) [No accounting courses are currently vetted for QR at CT State. Vetting of courses was completed by the Students First Gen Ed Core committee, and will likely be addressed by the CT State Curriculum Congress moving forward. With the four levels of scale agreed upon for use in all rubrics for the Framework30 SLOs, we calibrated level 3 to be the level at which we hope students will achieve. While Gen Ed assessment and grading are separate endeavors, we anticipate that much of student work at level 2 would also attain a passing grade, and even some work at level 1 might simultaneously earn the student a low but passing grade, such as a D.]
- Math department: looks good/no feedback

CCSU

ECSU

SCSU

WCSU

Charter Oak

Academic or Professional Group

Social and Behavioral Sciences SLOs:

1. Explain social, organizational, psychological, political, economic, historical, geographic, or cultural elements that influence and are influenced by individuals or groups.
2. Describe theories and concepts, or research methods used to investigate social or behavioral phenomena.
3. Identify and describe ethical issues pertaining to social contexts and phenomena.*

* Examples include but are not limited to: how economic policies affect social classes or marginalized groups; consumer behavior and governmental control over regulation; what counts as ethical or unethical research methods conducted with human subjects; codes of ethics used by specific disciplines in social & behavioral sciences; and issues pertaining to systemic inequality, structural oppression, and intersectional justice.

Asnuntuck CC

From Psych: In the social and behavioral sciences I am confused as to how I will quantify: consistently, frequently, sometimes, and rarely. Is this to be supported by multiple artifacts for each outcome? Or just one? I think that those terms can be removed from the outcomes and the rest of the descriptions made the primary focus. [FIRC intends the rubric to be used with a single artifact, and we recognize students often do not submit work that shows a consistent performance on all observable criteria, so we included quantifiers to allow for these different levels of consistency in meeting objectives within the same artifact.]

From ECN: I don't think they understood. They replied with the grading rubrics they use for the course.

Capital CC

From Assessment Team and C-DAC:
SBS: Looks good "as is," with one suggestion for revision: We suggest "casual reference" or "cursory reference" as a replacement for "token reference," as not all faculty may be clear on what is meant by the phrase. (Assessment Team and C-DAC, with the caveat that C-DAC advocates specifically for "casual reference" to replace "token reference.") [Others have also commented on the inaccessibility of the term "token," and have also asked that the word be replaced with a synonym. We have updated the rubric, using the word "casual."]

From Dept. of Soc. & Behavioral Sciences:
SBS: We support the rubric in its current form "as is," no suggestions for revision.

Gateway CC

Housatonic CC

Manchester CC

Middlesex CC

Naugatuck Valley CC

No comments

Norwalk CC

Northwestern CT CC

Quinebaug Valley CC

Three Rivers CC

Tunxis CC

From Faculty

- The second "competency" refers to describing "theories and concepts, or research methods used to investigate social or behavioral phenomena."
    - I would suggest adding "economic" to the "social or behavioral phenomena." Not all economic phenomena could be described as social or behavioral. Examples might include availability of resources, or technological advances. [The Social & Behavioral Sciences SLOs are meant to address NECHE standard 4.15, which states “demonstrate knowledge and understanding of… social phenomena.” The SBS SLOs were originally named Social Phenomena to underscore that purpose, so to address learning outcomes as defined by NECHE, the focus should be on a topic within economics that is social or behavioral at its core, rather than having to do with availability of resources or technological advances.]
- Sociology: no feedback
- Psychology: Its my opinion that some aspects of the rubric need more definition. We do not want to end up with one assignment in an entire course used to determine these areas. Please see below the suggestions for inclusion of a numeric scale. Scale 1-10 times/opportunities/percentage
    - Explain Influence: Consistently (9 - 10), frequently (6 - 8), sometimes (3 - 5), rarely (1 -2)

- Describe Theories/Concepts/Research Methods: Consistently (9 - 10), frequently (6 - 8), sometimes (3 - 5), rarely (1 -2)

[To alleviate workload burden, the assessment rubrics are designed to be used with a single assignment. However, individual instructors may opt to collect more student artifacts if they choose.]

CCSU

ECSU

SCSU

WCSU

Charter Oak

Academic or Professional Group

Scientific Knowledge and Understanding SLOs:

1. Communicate scientific knowledge using appropriate terminology, and representations, models, or analysis.
2. Describe how a scientific explanation or theory is refined or replaced.
3. Evaluate the quality of a scientific claim on the basis of its source, and the logic or methods used to generate it.

Asnuntuck CC

SKU looks good as is.

Capital CC

From the Assessment Team and C-DAC:
SKU: Looks good "as is," with one suggestion for revision: We suggest "casual reference" or "cursory reference" as a replacement for "token reference," as not all faculty may be clear on what is meant by the phrase. [Assessment Team and C-DAC, with the caveat that C-DAC advocates specifically for "casual reference" to replace "token reference."]

From a science faculty member: The SDC biology group was discussing SR and SK competencies. Many science faculty, including ones at CCC, believe that science classes with labs should be designated as scientific reasoning and scientific knowledge. Right now, only one competency can be designated. It doesn't make sense to have to pick just one. So right now, Bio 121 is designated as one competency and Bio 122 is the other. [Vetting of courses for the Framework30 was done by the Students First General Education Core group, not by FIRC. Once the Governance process of CT State is fully up and running, the vetting of courses for the Framework30 is an item that might be revisited by the Curriculum Congress.]

Gateway CC

Housatonic CC

From an individual faculty member submitted via C4P
ES: SR 1: Apply scientific methods to investigate phenomena of the physical or natural world through prediction, observation or experimentation, data acquisition, and evaluation.
How are you envisioning the students demonstrate their ability to "hypothesize or predict" the outcome of an experiment since we do not provide them opportunities to design their own experiments in the undergraduate lab. They do write lab reports in Gen Chem I (since apparently Gen Chem II is not SR, only SKU) should I be soliciting their predictions prior to the experiment? That seems very artificial since the Gen Chem lab procedure tells them what to do and describes what will happen. It sounds like we should switch to an inquiry based lab text.

Instead, could this outcome be measured by a written Exam question where they should be able to correctly predict the solubility of a compound in a potential solvent by consideration of intermolecular forces? (that is actually a Gen Chem II topic, however) [FIRC's response to this feedback is given in the SR Feedback document.]

From an individual faculty member submitted via C4P

SK1: Communicate scientific knowledge using appropriate terminology, and representations, models, or analysis.

I think you should remove the words consistently, frequently, sometimes and rarely. They seem to imply a long-term analysis of this skill, measured in multiple situations. It kind of sounds like a grade in the course rather than an artifact. [The terms that refer to frequency of demonstrating a skill, such as consistently, frequently, sometimes, and rarely, are meant to acknowledge that student performance is often not perfect; a student may not apply a skill uniformly throughout the same assignment. Assessment should be able to be completed by collecting a single artifact from each student.]

SK 2: Describe how a scientific explanation or theory is refined or replaced.

How are you envisioning students describe how a theory is refined or replaced? This sounds like an essay question on an exam in a "History of Science" course. Since I believe we all teach Gen Chem, can you give me an example of a specific assessment you might use? [FIRC is asking for students to either give an example from history to illustrate how a theory is refined or replaced, or to come up with a brief explanation of how scientific methodology allows for empirical studies to foster evolution of scientific models and theories. Examples from chemistry: the change from the Bohr model to quantum model of an atom, or the evolution of acid / base theory from Arrhenius to Bronsted to Lewis. An example from a biology course would be to discuss the evolution of scientific thought on the question of "where does life come from?", from spontaneous generation to biogenesis.] Perhaps an exam question which demonstrates they understand the need for the Lewis concept of resonance to explain the experimental spectroscopic observations of bond length? However, this would in no way constitute a "detailed, thorough accounting of historical developments or the processes used to generate new theories or refine existing theories."

For example, would you expect students to describe the complete evolution of the atomic model of the atom? [Any juncture where an amendment was made to theory, where the history or reasoning, and process behind adopting that change is explained, would be sufficient. An alternate assignment that could be mapped to this row of the rubric could require a critical analysis of a claim that purports to be scientific that is being circulated in public discourse today.]

SK3 Evaluate the quality of a scientific claim on the basis of its source, and the logic or methods used to generate it.

I was envisioning when we wrote the SLO that I would assess this one by expecting students to reflect on their own data (via a lab reports) when not all of the data points to the same conclusion. For example, in the Heat Effects and Calorimetry Experiment they identify a metal by experimentally determining its specific heat. Since some of the unknowns have very similar specific heats, I have them also perform a quick density

test and consider the physical appearance of the metal as found in the CRC handbook. This helps them refine their conclusion. Would you consider this as "using published academic sources to interpret and evaluate the claim"? That seems a bit of a stretch, the rubric is implying they are doing research outside of the lab to support their Gen Chem lab conclusions? I think this sentence in the rubric is over-reaching for this level. [For SKU, this would need to be a topic researched by the student using appropriate sources (e.g., scientific journals or other credible sources). When the SLOs were developed a year ago, faculty were asked to identify skills and knowledge they want any graduate who has earned an Associate Degree to have, as expectations for what a college-educated student should be able to know and do. The Framework30 SLOs represent knowledge and skills that non-STEM majors are expected to develop before graduation, in addition to the basic skills we expect STEM majors to acquire in the early stages of their Associate Degree program. The SLO this row of the rubric assesses was designed to ensure all students, including non-STEM majors, have the ability to distinguish between science and pseudo-science, in order to navigate the contemporary information landscape where conspiracy theories and claims of dubious merit often acquire a prominent place in public discourse.]

Manchester CC

Middlesex CC

Library staff thought that the term “credible sources” was too vague and preferred “peer reviewed sources.” I explained that “academic sources” was preferred by faculty working on the rubrics. [This SLO was meant to prepare students to research various issues that are subject to conspiracy theories, so a wider array of sources needs to be accounted for. For example, well-respected news sources might suffice for these purposes, especially if combined with academic sources (including textbooks), or even peer reviewed sources. The highest level of the scale specifies “academic sources,” while the criterion changes to “credible sources” at level 3 performance in the rubric. This difference allows for reputable publications, including news sources, to count as “credible sources.” Credible sources is a term that is intentionally broad, and if the credible sources are appropriate in their own right, or are explained in a way that demonstrates their credibility, they should suffice.]

Naugatuck Valley CC
No comments

Norwalk CC

Northwestern CT CC

Quinebaug Valley CC

Three Rivers CC

Three Rivers science faculty discussed the rubrics at a department meeting, rubrics were seen as an improvement over the original rubrics from 2012, and there were no suggestions for revisions to the drafts.

Tunxis CC

From an individual faculty member submitted via C4P

MT - I appreciate the work both of you have put into writing these rubrics, but would you consider simplifying it before bringing it to the TAP-FIRC? At the end of every semester, when I have to complete the spreadsheets with the list of students who "meet" or "not meet" the competencies, I am thankful that the process we have been following is simple and based on work that I had already completed during the semester. I think most instructors would not be happy to have to spend the extra time making a separate competency determination in addition to all the final exams grading! [FIRC has adopted a 4-point scale for all rubrics for consistency. While SLO assessment is separate from grading, and these rubrics are not intended to be used to assign grades to student work, instructors who wish to streamline their work and use these rubrics for grading could consider level 1 to represent both D and F grades.]

From a second individual faculty member submitted via C4P AH - Just to provide some perspective, currently, at Tunxis, we are using a pretty simplistic way to evaluate these abilities in our science courses. Most classes are simply using either the overall final grade for the course, or the score of a major assessment (such as the final exam at the end of the semester) to demonstrate whether a student has either "met" or "not met" the competency. It's just a simple yes/no 70 and above "meets", 69 and below "does not meet". We are assuming that our courses are designed in such a way as to have taught and evaluated all of the points of the competency throughout the course. [Gen Ed Assessment is conducted in order to empirically test those assumptions. If the courses are already setup in such a way, then the course likely already has appropriate assignments that will generate student artifacts that can be assessed using the rubric in a straightforward manner.]

I'm trying to envision how faculty would be using these rubrics. I'm not sure if they would be using a single assignment to fill out one rubric, or whether they would be looking at the student as a whole throughout their performance during the semester to fill out the rubric. [FIRC's intention is to use the rubric to assess a single assignment.] Either way, this will be an incredibly time-consuming process for our instructors. I'm just having trouble envisioning someone who has over 100 different students doing this for every single one. We have

enough trouble with compliance with the simple meets/did not meet method we've been using. [One way to make Gen Ed assessment more feasible is to take a random sample of student artifacts to assess, rather than gathering and assessing a student artifact for each individual student. This may be an option. Another way to make Gen Ed assessment more feasible is to align the assignment to the rubric, so that the rubric can be used to assign grades (level 1 would represent both D and F grades in such a case), thereby streamlining the instructor's assessment work. In such a case, the instructor could obtain scores for each student in the class without undertaking additional work.]

I feel like rubrics like this are most commonly used on individual assignments, but how many of us actually have single assignments that we could truly use to evaluate all of the three outcomes? Some of our assessments might hit upon one outcome, while others might hit upon another. [It is completely fine if multiple smaller assignments are matched to the rows of the rubric individually, rather than having a single large assignment that would apply all criteria from the rubric.] Even if we had (or designed) a single assignment that could assess all three, do we really want to be hinging the entire determination of whether a student "met" these outcomes on a single assignment? [Simply sampling student work is sufficient to the alternative of assessing an entire portfolio.] What if they just had a really bad week and couldn't put much effort into writing that report, etc 😳 I also still find rubrics rather subjective, even though I know their purpose is to reduce subjectivity. As a scientist, it still always feels very qualitative to me. [Subjectivity is involved any time an instructor assigns a grade (or points) to written work. We have designed the rubric criteria to exemplify the most common examples of student work at the various levels of scale, both for increased reliability as well as ease of application.]

I guess it would help me to hear how other colleges have been already evaluating these competencies and what the use of this rubric looks like in practice. I think the rubric itself is well designed, I'm just a bit concerned about the complexity and actual implementation of it. [Moving forward, Gen Ed Assessment folks will need to make opportunities to get faculty together to talk about how they chose which assignment to use with the rubric (or tweaked existing assignments to address the criteria measured by the rubric), and discuss applying the rubric. This could be done among faculty within a single campus, or as an event across campuses, where faculty who feel comfortable assessing share examples of their assignments and how they apply the rubric to student work (student work would be shared anonymously.]

CCSU

ECSU

SCSU

WCSU

Charter Oak

Academic or Professional Group

Scientific Reasoning SLOs:

1. Apply scientific methods to investigate phenomena of the physical or natural world through prediction, observation or experimentation, data acquisition, and evaluation.
2. Represent and report scientific data symbolically, graphically, or numerically.
3. Interpret and evaluate scientific data in order to draw reasonable and logical conclusions.

Asnuntuck CC

SR looks good as is.

Capital CC

Assessment Team and C-DAC:
SR: Looks good "as is," no suggestions for revision.

From a science faculty member: The SDC biology group was discussing SR and SK competencies. Many science faculty, including ones at CCC, believe that science classes with labs should be designated as scientific reasoning and scientific knowledge. Right now, only one competency can be designated. It doesn't make sense to have to pick just one. So right now, Bio 121 is designated as one competency and Bio 122 is the other. [Vetting of courses for the Framework30 was done by the Students First General Education Core group, not by FIRC. Once the Governance process of CT State is fully up and running, the vetting of courses for the Framework30 is an item that might be revisited by the Curriculum Congress or whichever body is charged with the responsibility of vetting courses.]

Gateway CC

Housatonic CC

From an individual faculty member submitted via C4P
ES: SR 1: Apply scientific methods to investigate phenomena of the physical or natural world through prediction, observation or experimentation, data acquisition, and evaluation.
How are you envisioning the students demonstrate their ability to "hypothesize or predict" the outcome of an experiment since we do not provide them opportunities to design their own experiments in the undergraduate lab. They do write lab reports in Gen Chem I (since apparently Gen Chem II is not SR, only SKU) should I be soliciting their predictions prior to the experiment? That seems very artificial since the Gen Chem lab procedure tells them what to do and describes what will happen. It sounds like we should switch to an inquiry based lab text.
Instead, could this outcome be measured by a written Exam question where they should be able to correctly predict the solubility of a compound in a potential solvent by consideration of intermolecular forces? (that is actually a Gen Chem II topic, however)

[While an inquiry-based lab text would support the more advanced skills of hypothesizing and predicting in these SLOs, it is also possible to adapt current assignments in order to assess this. Every skill and knowledge area explicitly stated in an SLO needs to be assessed, so the rubrics need to be comprehensive in their ability to address every component of the SLOs. Faculty involved in Gen Ed assessment on each campus should be reaching out to help instructors choose existing assignments and exam questions that map well to these rubrics, and also to offer suggestions for ways to tweak the assignment to fully address the relevant SLOs in order to allow students the opportunity to demonstrate their attainment of skills and knowledge in these areas.]

Manchester CC

Middlesex CC

Naugatuck Valley CC

No comments

Norwalk CC

Northwestern CT CC

Quinebaug Valley CC

Three Rivers CC

Three Rivers science faculty discussed the rubrics at a department meeting, rubrics were seen as an improvement over the original rubrics from 2012, and there were no suggestions for revisions to the drafts.

Tunxis CC

- Department members are giving feedback through the system committees

CCSU

ECSU

SCSU

WCSU

Charter Oak

Academic or Professional Group

Written Communication SLOs:

1. Craft a thesis-driven, supported, logically organized argument that applies conventions of English appropriate to the audience, purpose, and context.
2. Interpret and evaluate credible sources and integrate ideas from those sources in an ethical manner with appropriate documentation.

Asnuntuck CC

There is general concern about the level of subjectivity, in particular with uses of words like sophisticated in the "craft an argument" dimension. It was suggested that a better measure might be the consistency of the support for a thesis. All college writing is on some level sophisticated. [Other faculty members also found fault with "sophisticated." We have changed it to "insightful."]

Capital CC

Feedback from Assessment Team and C-DAC

WC: Looks good "as is," no suggestions for revision. [Assessment Team and C-DAC; in addition to this feedback, C-DAC acknowledges this rubric can be used in an all-purpose manner for writing classes at different levels, to accommodate both WC I and WC II requirements.]

Feedback on the WC rubric from the A&H Department:

- WC, Third row: The current label of "Apply Conventions of English" does not describe the full category addressed by this row of the rubric, and puts too much emphasis on the conventions of English. Suggest changing the dimension descriptor on the far left to "Apply Clear Language Choices" or "Express Ideas Clearly" (appropriate for audience and purpose). [Thank you for pointing out the effect of using a single phrase from the SLO as a heading for this row of the rubric. Emphasis on conventions of English was not the intended result, and we have taken your suggested edit.]
- WC, Third row, beginning of second bullet point: Suggest replacement for "Accurate," which may be construed by some to imply there is a single right way of using language, while any of the following options could be used to carry less of a connotation that favors Standard English: deliberate, purposeful, intentional, controlled, conscious, precise, distinct. For example, "Purposeful and effective language choices…." [Thank you for suggesting options for a more neutral way to specify the language performance we are seeking to describe at this highest level of student performance. We have incorporated your suggestion into the revised rubric.]
- WC, Third row, middle of second bullet point: Suggest additional reference to other languages, to acknowledge there can be appropriate use of languages

other than English within texts written in English (for example, to specify cultural context, add authentic voice, and allow for more precision in expression of ideas): “language choices such as conventions of English” would become: “language choices such as conventions of English or elements of other languages” with the parenthetical statement that follows to remain unchanged. [Thank you for reminding us that elements of other languages can be incorporated in a meaningful way to texts written in English, and that we can create a more inclusive environment for our students by explicitly recognizing this.]

Gateway CC

Housatonic CC

Manchester CC

Middlesex CC

Naugatuck Valley CC

Two comments

1. *All was fine. CCET discussed this prior. No additional recommendations.*
2. *“The 4 point scale does not match A to F grading scales.”* [FIRC has adopted a 4-point scale for all rubrics for consistency and because the distinctions between categories may be too fine to facilitate straightforward use of the rubric if a fifth level of performance is included. While SLO assessment is separate from grading, and these rubrics are not intended to be used to assign grades to student work, instructors who wish to use these rubrics for grading could consider level 1 to represent both D and F grades.]

Norwalk CC

Northwestern CT CC

Quinebaug Valley CC

Three Rivers CC

Tunxis CC

Feedback from faculty:

- Somewhat not appropriate word in 2 for Language Conventions [We chose "somewhat" as the intermediary between "clearly expressed," "appropriate," and "effective" in level 3 and "poorly expressed," "inappropriate," and "ineffective" in level 1. We setup level 2 performance as a contrast to both levels 3 and 1.]

- I would suggest that the "thesis-driven" language be removed from the several levels. Or that the existence of a thesis be inclusive with the idea of an argument or a position. The definition of what a thesis is might be left up to the individual expert who's teaching the course. [During the process of revising the SLOs, faculty across the disciplines expressed a desire for students to acquire the skills of writing classic academic essays, which use a thesis. The SLOs reflect the feedback we received, and we are now crafting a rubric to align with the SLOs.]

- In addition, imho it seems to me that the standards levels invent differentiation. What, for example, would a sophisticated thesis be versus one that is general (see Meets Some Expectations) or one that just exists (a 3 versus a 4)?
- In "Respond to Rhetorical Situations" one can "effectively address" or "adequately address," which would create the need for a reviewer to strain credulity. Isn't something "adequate" potentially "effective."

I think all the language should simply go Boolean. If there has to be a thesis, then the thesis is either in existence or it isn't. Come grading time, a faculty expert can give a student an A if they think the thing warrants it.

In the existing lingo, the rubrics are forcing a link to grades but grades are not supposed to be an issue.

Other language choices are possible. For example, in my view, if faculty need better methods of distinguishing differences in work, then the subject of the evaluation should not be something like "sophisticated thesis" but "sophisticated understanding of the problem or ideas treated in the paper . . ."

Student writing crafts an argument that:

• is purposeful and sophistacted
• Is effectively supported by evidence, and • Is organized appropriately, using cohesive transitions. [It is more straightforward to assess an argument in terms of the quality of the thesis statement, how well the evidence supports a thesis than to evaluate the argument as a whole.]

CCSU

ECSU

SCSU

One thing I noticed is that there are multiple elements in each row. If it is required that the student do all of these things to merit exceeds expectations, then I recommend adding AND. Alternately, these can be split into separate rows all under the heading to the left. [While as many bullet points as possible should apply to the student artifact, it is not required that every single criterion be met to achieve that level of performance. The intention is for faculty to compare a student artifact and select the level that best matches the student artifact, which means if, for example, the descriptors for both level 3 and level 2 in a given row describe the student artifact, then the instructor should choose the one that better matches the student artifact, which may be the higher level if more of the descriptors apply.]

Exceeds Expectations (4)	**M**
Student writing crafts an argument that: • Includes a **sophisticated** controlling thesis. • Is **well** supported by evidence, and • Is organized appropriately, using **cohesive** transitions.	S a • • •
Student writing responds to rhetorical situations: • **Effectively** addresses the purpose of the writing task. • **Effectively** engages a specific audience.	S r • •

Here is what that might look like in a different rubric:

Reflection	Reflection includes deep discussion of candidate's thoughts during the project AND how those thoughts shifted during the project.	R c d
	Reflection includes deep discussion of candidate's leadership during the project AND how those leadership perspective may have shifted during the project.	R c p
	Reflection includes deep discussion of candidate's feeling/behaviors during the project AND what the candidate would do differently now, knowing what they know.	R c f p

I will also mention that in my example it asks for deep discussion… this needs unpacking for students, so I provide examples of what the different levels of work described in the rubric look like so that they know the expectations. "Sophisticated" likely has the same issue. [Other faculty members also found fault with "sophisticated." We have changed it to "insightful."]

WCSU

Charter Oak

Academic or Professional Group

Comments regarding the Written Expression SLO Rubric from Joe Cullen,
Director of Program Review and Assessment, CT State
1/8/2023

1. Since the DNM Expectation level of performance includes students who turn in assignments that contain all the components being assessed AND students who omit key components entirely, I recommend adding a zero-point labelled "Not Submitted." Doing so would enable faculty to distinguish students who, for example, provide a poorly stated theses from those who provide no thesis at all. [FIRC's recommendation is to treat missing data with a placeholder (such as ".") rather than a numeric value, so as not to skew the overall results toward appearing as if certain skills were unobtained when we were unable to gather data to assess them.] Also, the phrase "Meets Expectations" does not sufficiently distinguish this rating from "Meets Some Expectations." So, I suggest the following:

    - Not submitted (0)
    - Does not meet expectations (1)
    - Partially meets expectations (2)

- Fully meets expectations (3) [FIRC members discussed the term "fully" for level 3 language in various areas of the rubrics, and each time it seemed to move that category too close to level 4, exceeds expectations.]
- Exceeds expectations (4)

2. Separating more of the dimensions into discrete components would strengthen the rubric. While the thesis, support, and organization of a written product tend to correlate closely, it is, nonetheless, possible to receive a paper that has a superior thesis but weak support or one that is poorly organized but has a strong thesis and supporting arguments. When this occurs, users will be frustrated and the results will vary, undermining inter-rater agreement. [Faculty who teach writing are most likely to be familiar with holistic rubrics for their ease of use and high degree of face validity. FIRC anticipates that using this holistic format, which faculty are already familiar with for assigning grades to assignments, will increase participation in assessment and prevent faculty from needing to perform much additional work for Gen Ed assessment.]
3. I also recommend using the language of the SLO verbatim. For example, instead of "Response to Rhetorical Situations", I recommend "Product is appropriate to the audience, purpose, and context of the assignment." This dimension can then be operationalized in the expectations column to reflect the degree to which the product fits the rhetorical components that are deemed essential. [These rubrics are designed to fit the new SLOs, which we have identified in the feedback at the top of your rubric draft. We have chosen to format the rubrics according to best practices identified by Stevens & Levi, 2013, cited within the Guiding Principles document.]
4. This rubric never clearly states the expectation for each of the dimensions. In the column adjacent to each dimension, I recommend doing so in the clearest language possible. It operationalizes the dimension and makes it more observable and measurable. Please note that the expectation and the description of "fully meets expectation" should be identical since this is the level of performance that we would like all of our students to achieve. [The SLOs are stated at the top of each rubric. We have adopted the best practice cited in the Guiding Principles to provide a simple label to orient the scorer the dimension, and include a list of criteria to be met within each dimension description.]
5. The word sophisticated is too imprecise. It can mean either "worldly" or "developed to a high degree of complexity." I suggest replacing it with "exceptionally well-developed." [We have received feedback from others that have also pointed out the need to replace the word "sophisticated." We have replaced it with "insightful."]
6. Use of sources as described in the SLO seems to have three components –interpretation (i.e., correctly quoting or paraphrasing the source), evaluation (i.e., making sure the source is current, authoritative, scholarly, and factual), and proper usage (i.e., proper integration into the text, ethical use, and proper citation). I would, therefore, break these into separate dimensions. [This is a possibility for future iterations of the rubric, if faculty don't consider it to be too difficult or time consuming.]

The attached sample integrates these suggestions. I hope it is helpful. [Thank you; we have included the second draft of your rubric as your feedback and to note our responses.]

Draft Rubric to Assess Written Communication from Joe Cullen – 1/24/2023

Student Learning Outcomes

1. Craft a thesis-driven, supported, logically organized argument that applies the conventions of standard English. [Standard English is not part of the SLO.]
2. Identify college-level sources and integrate ideas from those sources in an ethical manner, with appropriate documentation.

[These are the WC SLOs that were approved at the end of AY 2021/2022 and for which we need to design rubrics:

1. Craft a thesis-driven, supported, logically organized argument that applies conventions of English appropriate to the audience, purpose, and context.
2. Interpret and evaluate credible sources and integrate ideas from those sources in an ethical manner with appropriate documentation.]

Dimension The student's product…		Expectation The student's product…	Meets Expectation		If no, please indicate reason	
			Yes	No	Reasons	Check All that Apply
Crafts a thesis-driven, supported, logically organized argument.	Thesis	Contains a controlling thesis that clearly states a conceptual approach and/or subject area.			Does not include a controlling thesis.	
					Includes a controlling thesis but conceptual approach, and/or subject area are poorly specified.	
	Support	Contains arguments that are supported by evidence.			Does not contain any identifiable arguments	
					Contains arguments but supportive evidence is weak	
	Organization	Follows a logical plan and adequately uses transitions.			Does not follow a sufficiently logical plan	
					Does not use transitions adequately	
Applies conventions of		Has minimal grammar, spelling, usage, syntax, and/or punctuation (G, S, U, S,			Contains significant G, S, U, S, &/or P errors	
					Contains minimal G, S, U, S, & P, some of which affect meaning	

standard English appropriate to audience, purpose, and context.	Conventions of Standard English	& P) errors, none of which affect meaning. [Faculty are committed to using assessment measures that are more inclusive than using Standard English as the measuring rod, especially when Standard English may not be aligned with the audience, purpose, or context.]			Contains significant G, S, U, S, &/or P. some of which affect meaning	
	Appropriate to audience, purpose, & context.	Consistently addresses the purpose of the writing task and engages a specific audience.[The conventions of English are dependent on what is considered appropriate to audience, purpose, and context in the new SLO.]			Does not consistently address the purpose of the writing task	
					Does not engage a specific audience	
		Benchmark SLO #1 4/5				
Interprets & evaluates credible sources; integrates ideas in an ethical manner; appropriately documents sources.	Interprets sources	Summaries and/or paraphrases others' ideas and supporting details mostly accurate.			Does not consistently attempt to summarize and/or paraphrase others' ideas and/or supporting details	
					Summaries and/or paraphrases others' ideas and supporting details inaccurately	
	Evaluates sources	Mostly uses information sources that are authoritative and factual.			Information sources are not authoritative	
					Information sources are not factual	
	Ethically uses and appropriately documents sources	Information from external sources is correctly quoted, acknowledged, and cited in most instances.			Information from external sources is incorrectly quoted in most instances	
					Information from external sources is incorrectly acknowledged in most instances	
					Information from external sources is incorrectly cited in most instances	
		Benchmark SLO #2 2/3				