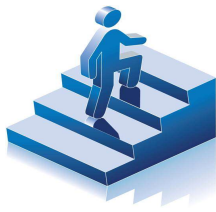


Are you ready for the next generation of competency-based task design?

Integrating Academic Competencies with Self-Direction Skills



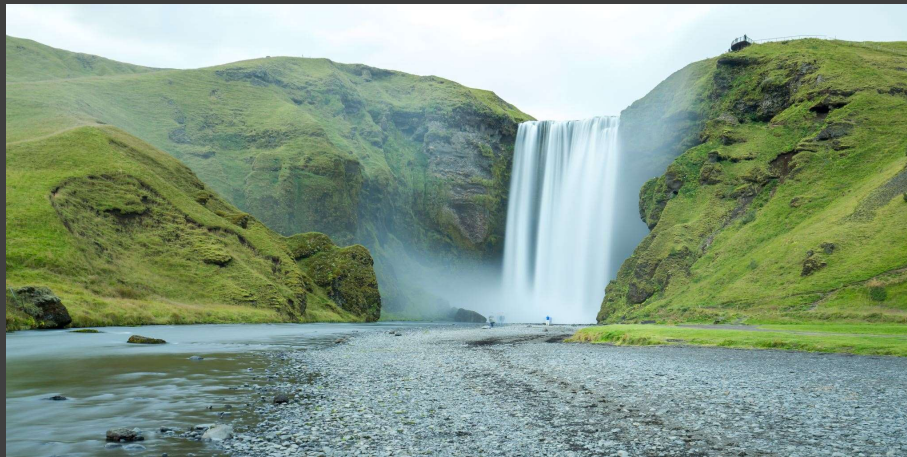
Dr. Karin Hess [[@drkarinhess](https://twitter.com/drkarinhess)]

Educational Research in Action, Underhill VT

www.karin-hess.com

1

1



A “WAIT & Waterfall” Question

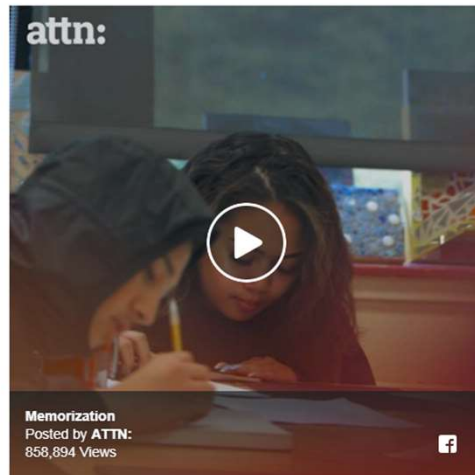
- Type your response in the chat but WAIT to push “post” ... until I say “waterfall”
- *Why do you think memorization has reigned supreme in assessment for so long?*

2

2

Students answer the question, “What does it *really* mean to be competent?”

(<https://education-reimagined.org/why-memorization-traditional-learning/>)



3

3

Overview

- **The Big Picture of CBE - “Validation Pitstops”**
- **Apply the 7 characteristics of competency-based education to develop ...**
 - CBE Task-Neutral Performance Scales (**Academic Competencies** + **Personal Skills/Work Practices**)
 - A Range of Comparable Assessments & Rubrics
 - Use “Actionable” Formative Assessment in Instructional Planning

4

4

An Updated Definition for CBE


(Levine & Patrick, 2019)

1. Students are empowered daily to make important decisions about their learning experiences, how they will create and apply knowledge, and how they will demonstrate their learning.
2. Assessment is a meaningful, positive, and empowering learning experience for students that yields timely, relevant, and actionable evidence.
3. Students receive timely, differentiated support based on their individual learning needs.
4. Students progress based on evidence of mastery, not seat time.
5. Students learn actively using different pathways and varied pacing.
6. Strategies to ensure equity for all students are embedded in the culture, structure, and pedagogy of schools and education systems.
7. Rigorous, common expectations for learning (knowledge, skills, and dispositions) are explicit, transparent, measurable, and transferable.

5

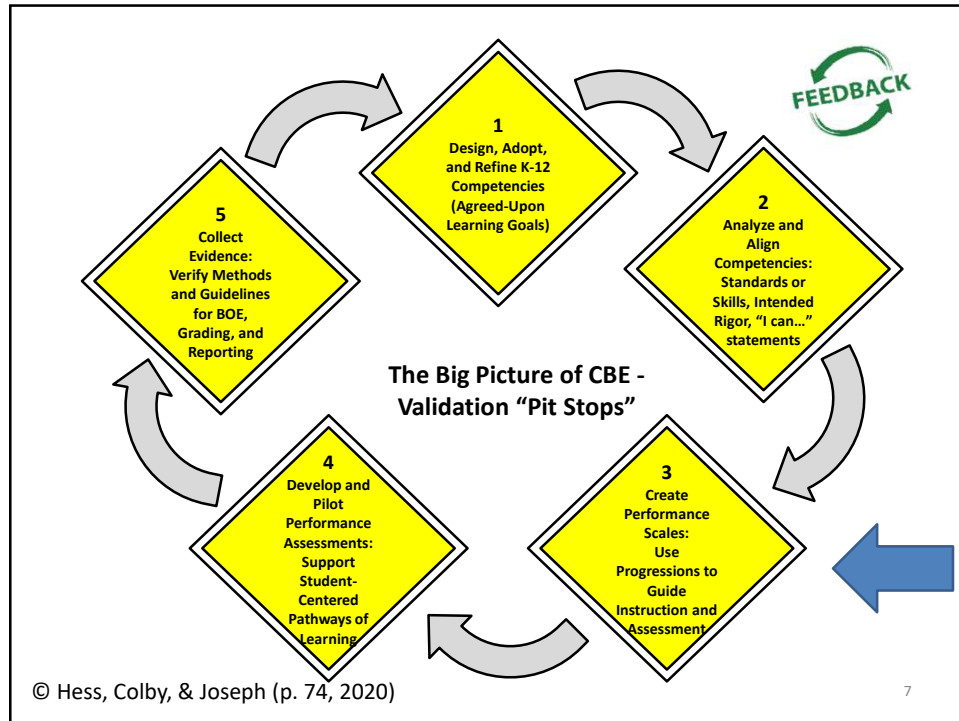
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Some implications for CBE assessment and evidence-based grading

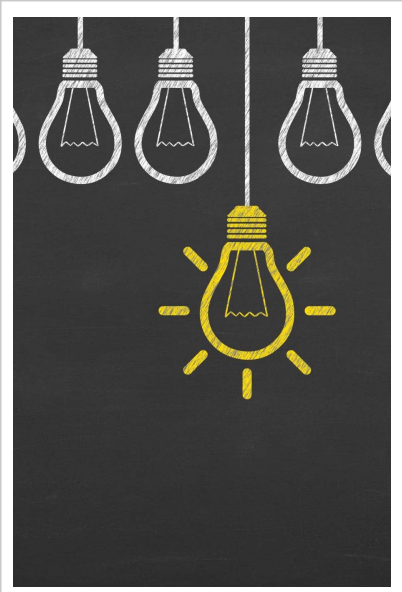
1. Students have ownership over learning 
2. Assessment is meaningful, positive, empowering
3. Students receive timely differentiated support
4. Students advance upon demonstrated mastery
5. Students learn actively, using different pathways
6. **Academic** & **Personal** competencies ensure equity
7. Competencies are explicit, rigorous, and measurable - transfer & creation of knowledge

6

6




7



The BIG Picture: Key Components of Competency-Based (CB) Systems [1]

- **Clear, agreed-upon expectations: Competencies = Foundation**
 - **Measurable & manageable** to support implementation (e.g., grain size, number/grade or content area)
 - **Valid** (aligned with intended standards, DOK, transferable skills)
 - **Provide instructional guidance:** what to teach, how to scaffold along a learning continuum, signals indicators progress along the way

8



The BIG Picture: Key Components of Competency-Based (CB) Systems [2]

- **Performance Scales (for each competency)**
 - describes a progression of performance
 - ensures comparable, high-quality task and rubric development, reliable scoring, deeper learning ACROSS classrooms
- **Instruction, access, and feedback** in a competency-based system: student centered, flexible, supportive, relevant
- **Verification methods** for evidence-based grading and building a valid CB body of evidence (BOE)

9

9

Two Types of Competencies

Hess, Colby, & Joseph (pp. 61-63, 2020)


- **Academic Competencies**
 - Build “Progressions” by Content Area
 - Approximately 6-8/grade level
 - Lead to (far) transfer of learning

Students' Ability to
Transfer Learning
(Hattie effect size 0.86)
- **Personal Success Skills Competencies – Research used to build the progressions**
 - Social Emotional Learning (SEL)
 - Critical & Creative Thinking
 - Collaboration
 - **Goal Setting & Self Monitoring**
 - **Metacognitive/Self-Direction Strategies**

Student Self-Reflection
(Hattie effect size 0.75)

10

10



New Hampshire
Department of Education
Serving New Hampshire's Education Community

NEW HAMPSHIRE College and Career Ready
K – 8 ENGLISH LANGUAGE ARTS MODEL COMPETENCIES

**Academic
Competencies**

	K-2	3-4	5-6	7-8
6. Competency Statements for Opinion/Argument Writing <i>"I can statements" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.</i>	<p>Students will examine a topic or text(s) and apply organizational strategies to support a personal opinion with drawing/ dictating/ writing.</p> <ul style="list-style-type: none"> I can state an opinion that answers a question about a topic or text (e.g., what was your favorite part?). I can state reasons to support my opinion and then use facts and details to say more about each reason. I can use sources (texts, pictures, discussion) to find and add labeled pictures or diagrams to help explain my reasons. I have a beginning that states my opinion, a middle that supports my opinion with reasons and facts, and an ending. With support, I can edit and revise my text for clarity (e.g., using grade-appropriate punctuation, capital letters, labels, simple sentences/fact statements, vocabulary, and visuals). 	<p>Students will analyze a topic or text(s) using a variety of sources and apply organizational strategies and evidence to support an opinion for varied audiences.</p> <ul style="list-style-type: none"> I can state an opinion that answers a question about a topic or text. I can use sources (pictures, primary and secondary sources, discussion) to expand my understanding of the topic/text and locate information to support my point of view. I can organize my ideas by stating reasons that support my opinion, and using facts and details to say more about each reason. I can add visuals to help elaborate on my reasons. I can connect reasons and facts with linking words and provide a conclusion that restates my opinion and considers why others might not agree with me. With support, I can edit and revise my text for clarity, focus, and coherence (e.g., using grade-appropriate mechanics, grammar, language, sentence types, description/elaboration, and relevant visuals). 	<p>Students will produce clear, coherent, and effective opinion/argument writing for a range of text types*, purposes, and audiences.</p> <ul style="list-style-type: none"> I can employ organizational structures* and persuasive techniques (rhetorical devices, elaboration) to establish and support a claim about a topic, text, or issue. I can use relevant sources (video, primary/ secondary sources, interviews, discussion) to expand my understanding of the topic/text/issue and locate information to support different points of view, including mine. I can maintain a focus and develop my point of view by analyzing hard evidence (data, text evidence, quotes) in support of each stated reason or criterion for my claim/thesis. I can logically connect reasons, facts, analyses, and sources and provide a conclusion that addresses why others might not agree with me. With guidance, I can edit and revise my text for clarity and coherence (e.g., conventions, grammar, focus, transitions, and chain of logic). 	<p>Students will produce clear, coherent, and effective argumentative writing for a range of text types, purposes, and audiences.</p> <ul style="list-style-type: none"> I can employ argumentative structures and persuasive techniques (rhetorical devices, elaboration, call to action) to convey claims and counterclaims related to a topic/text/issue. I can use reliable and credible sources (print/non-print primary and secondary sources, interviews) to expand my understanding of the topic/text/issue and locate information to support diverse points of view. I can maintain an authoritative stance for my claim/thesis by analyzing hard evidence used (data, text evidence, quotes) in support of each stated criterion for my position. I can logically connect reasons, facts, analyses, and sources and provide a conclusion that addresses possible counterclaims. I can edit and revise my text for clarity, coherence, and intent (e.g., conventions, grammar, focus, and chain of logic), with guidance as needed.
Aligned National standards	W.K-2.1, W.K-2.5	W.3-4.1, W.3-4.4, W.3-4.5, W.3-4.8, W.4.9	W.5-6.1, W.5-6.4, W.5-6.5, W.5-6.8, W.5-6.9	W.7-8.1, W.7-8.4, W.7-8.5, W.7-8.8, W.7-8.9

11

One way to think about the *complexity of learning targets (I can...)* at each DOK level



- **DOK 1 = Acquire a Foundation**
- **DOK 2 = Apply, Connect, Conceptualize**
- **DOK 3 = Deepen & Construct Meaning**
- **DOK 4 = Extend & Broaden Meaning**

NEAR
Transfer

FAR
Transfer

12

12

Teacher Clarity
(Hattie effect size 0.75)

Analyzing a Competency (Learning Goal): What learning is implied?

Content Area: ELA	Grade Level: 3
-------------------	----------------

Unit Learning Goal

Students will analyze a topic or text(s) using a variety of sources and apply organizational strategies and use evidence to support an opinion for varied audiences.

Step 2 – create “I can...” statements showing proficiency

Step 1 - underline key learnings in competency

Learning Targets – Increasing Complexity: [DOK1] -- [DOK 2] -- [DOK 3] -- [DOK 4]

- I can state an opinion that answers a question about a topic or text.
- With support, I can edit and revise my text for clarity, focus, and coherence (e.g., using grade-appropriate mechanics, grammar, language, sentence types, description/elaboration, and relevant visuals).
- I can use sources (pictures, primary and secondary sources, discussion) to expand my understanding of the topic/text and locate information to support my point of view.
- I can organize my ideas by stating reasons that support my opinion and use facts and details to say more about each reason.
- I can add visuals to help elaborate on my reasons.
- I can analyze and connect reasons and facts with linking words and provide a conclusion that restates my opinion and considers why others might not agree with me.
- I can analyze or synthesize information from multiple sources.

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A Performance Scale Establishes

Comparable (CRITERIA) for task and rubric development and scoring across courses/teachers;

Planning instruction/learning targets and formative assessment; and

Progress monitoring (**I CAN...**) and student reflection/self-assessment.

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Designing Competency-Based Scales that Guide Assessment Uses

Standards form the instructional support as pathways (progressions) to achieve mastery of a given competency

- Some standards are considered “**foundational**” and taught earlier using formative assessments
- Other standards are **prioritized and reinforced** because they can be combined for deeper understanding
- **Demonstrating mastery** of a single standard in isolation is not the same as demonstrating mastery when applied in a complex task, performance, or project for a competency

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Developing CB Performance Scales

1. WRITTEN TO BE “TASK NEUTRAL.”
2. INCREASING COMPLEXITY AND COGNITIVE DEMAND (DOK) ARE REPRESENTED
3. USE DESCRIPTIVE LANGUAGE
4. ARE WRITTEN IN STUDENT-FRIENDLY LANGUAGE
5. GRAIN SIZE OF COMPETENCY MATTERS
6. DESCRIBE HOW STUDENTS DEVELOP EXPERTISE OVER TIME

16

16

Press F4 to toggle between views

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Proficiency Statement / Broad Learning Objective for Unit of Study:
Students will use a variety of sources to analyze a topic or text(s) and apply organizational strategies and evidence to support an opinion on the topic, for varied audiences.

Grade Level/Course/ Unit of Study: Grade 3, ELA Writing, 3rd quarter

CBE Tool #6

(Hess, Colby, & Joseph, 2020)

First, describe "proficient" performance

Bundled Standards	Reading Writing Listening	Evidence from this unit/course (LIST Instructional & Assessment Tools)
EXPANDING Score 4.0 Constructs knowledge/(far) transfer, extends thinking	In addition to Score of 3.0, the students demonstrates in-depth insights, solutions, and/or applications that go beyond what was explicitly taught. I can expand my use of sources to support my claims. I can apply my learning to a real- world situation or new insight ("so what?")	
PROFICIENT Score 3.0 Tasks require (near) transfer & integration of skills and knowledge	<p>3 In addition to score 3.0 performance, exhibits some in-depth insight or applications with <u>partial success</u> = attempts to go beyond what was taught; extends thinking, but was not completely successful</p> <p>3.5 The student exhibits <u>no major misconceptions</u>, no key factual inaccuracies, nor relevant omissions. I can analyze a topic or text(s), consider multiple perspectives/opinions on the topic, and state my opinion. I can connect reasons and facts/evidence with linking words and visuals to build support for my claim/opinion. I provide a conclusion that summarizes or expands upon my claim. I can revise my text for clarity, focus, and coherence</p>	Assessments:
DEVELOPING Score 2.0 Performs or understands the less complex aspects parts (in isolation) required for more complex tasks	<p>2 In addition to score 2.0 performance, no major errors and partial knowledge of most of the 3.0 content and skills. Evidence of some flawed explanations, thinking/misconceptions</p> <p>2.5 I can use (text and non-text) sources to locate and record information. I can organize my ideas for writing I can determine how visuals help elaborate on ideas presented I can state an opinion in response to a question I can edit GUM</p>	<p>(sample) Assessments:</p> <ul style="list-style-type: none"> With a partner, locate information related to a specific topic (e.g., 2-column notes) after reading or listening/viewing Complete a graphic organizer to categorize ideas and supporting facts/evidence Practice peer editing for short writing assignments Use sources to generate possible perspectives on a topic
BEGINNING Score 1.0	<p>With scaffolding and support</p> <p>I can locate facts in a source provided</p> <p>I can differentiate facts-opinions</p> <p>I can state possible opinions in response to a given question</p>	Formative /Pre-Assessments:

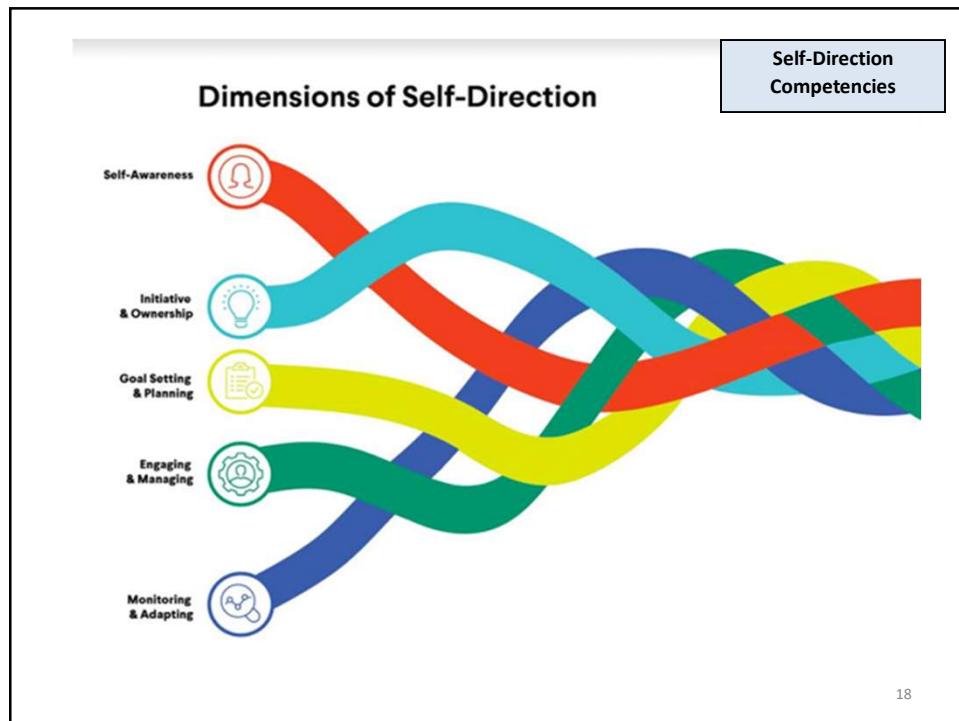
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CBE Tool #6
(Hess, Colby, & Joseph, 2020)

First, describe "proficient" performance

17

17



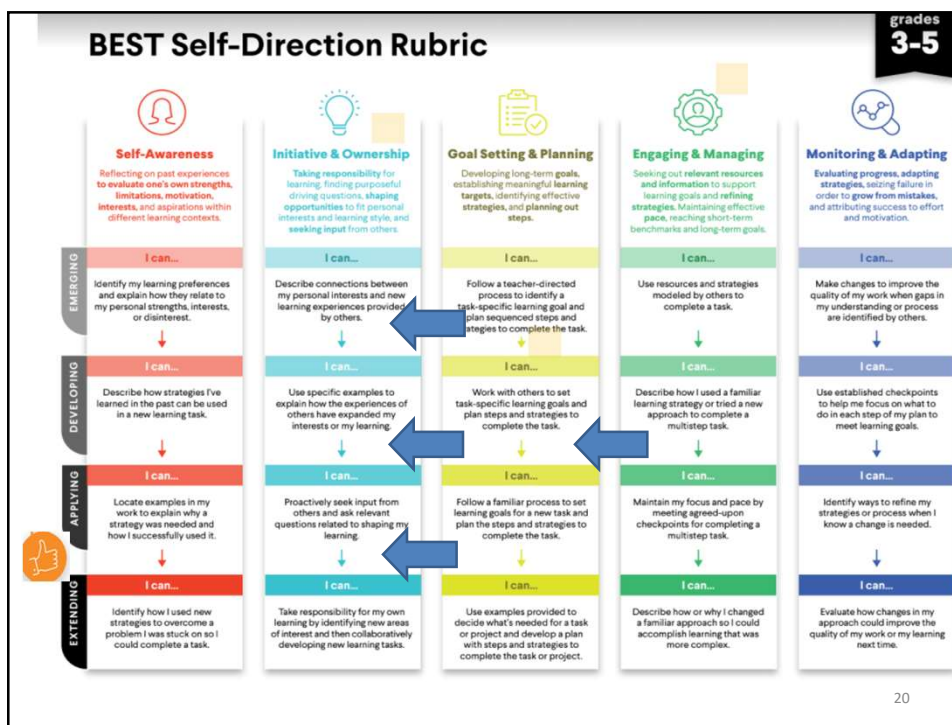
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18

Although counterintuitive, collaboration is intricately related to self-directed learning. Learners develop self-directed learning skills as they engage with others.

Brandt, 2020

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Making Connections: From Performance Scale – To Performance Task – To Rubric		
Performance Scale (I can...)	Performance Tasks?	Criteria for Scoring Rubric
<ul style="list-style-type: none"> • I can plan and carry out research on a historical topic. • I can analyze events and link past to present. • I can communicate my learning in a variety of ways. • I can evaluate and reflect on my progress. 	?	<ul style="list-style-type: none"> • <u>Research skills</u> • <u>Accuracy of events, theories, concepts</u> • <u>Analyze the impact over time</u> • <u>Reflect on what it means for my future</u> • <u>Set goals and identify strategies used successfully</u>

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Rubric Wording Aligns with the Performance Scale

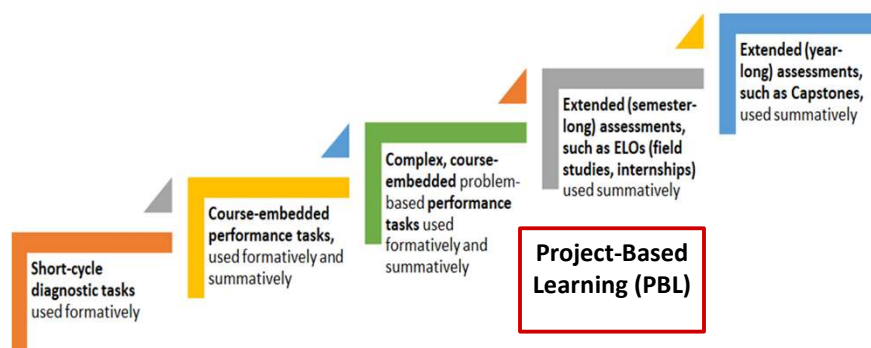
Hess PLC Tool # 11:Rubric Quality Review

1. Adjacent performance levels are qualitatively different; reflect how learning naturally progresses with instruction
2. Uses descriptive language; avoids subjective and judgmental language
3. Emphasizes quality (e.g., valid sources) over quantity (e.g., 3 sources)
4. All performance levels stated in the positive – what IS happening
5. Describes excellent *rather than perfect* performance
6. Descriptors and criteria match increasing levels of rigor for task expectations
7. Wording is “kid friendly”

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The Performance Assessment Continuum (Hess, Colby, & Joseph, p. 65)



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A High School Literacy Example © Delaney, Moore, & Hardy, Proviso East

Rhetorical Analysis Competency:

- The student will analyze how an author's content and rhetorical choices communicate a text's purpose.

Learning Targets:

- I can determine the author's theme and purpose when viewing a piece of persuasive media.
- I can view a piece of persuasive media and identify the rhetorical strategies used by the author.
- I can evaluate the impact of an author's use of rhetorical strategies in a piece of persuasive media.
- I can compare and contrast the use of rhetorical strategies between authors on a particular topic.
- I can effectively use rhetorical strategies in my communication with others that best fit my audience to prove my point of view.
- I can reflect on my learning – about self and about content**

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A “Task Neutral” Performance Scale

Competency Statement: The student will analyze how an author's content and rhetorical choices communicate a text's purpose.		
Grade Level: 11 th Grade Unit of Study: Rhetorical Analysis: Analyze the rhetorical techniques from an author's argumentative work.		
EXPANDING / ADVANCED Score 4.0 Constructs knowledge/(far) transfer, extends thinking	In addition to Score 3.0, in-depth insights, solutions, and/or applications go beyond what was explicitly taught. The student will decide how an author uses satire or irony as well as point of view to challenge expectations or common practice.	Evidence from this unit/course (List Instructional or Assessment Tasks) • Write a reflection explaining theme, purpose, use of rhetoric and effectiveness of each strategy
	In addition to score 3.0 performance, exhibits some in-depth insight or applications with partial success	
PROFICIENT Score 3.0 Tasks require (near) transfer and integration of skills and knowledge	The student will: Analyze how an author's content and rhetorical choices communicate a text's purpose. Exhibit <u>no major misconceptions</u> , no key factual inaccuracies, nor relevant omissions	• Create an original product incorporating each rhetorical strategy (ethos, logos, and pathos)
	In addition to score 2.0 performance, no major errors and partial knowledge of most of the 3.0 content and skills. Evidence of some flawed explanations, thinking/misconceptions	
DEVELOPING Score 2.0 Performs or understands the less complex aspects parts (in isolation) required for more complex tasks	The student will: Describe the purpose of the text. Explain the main ideas or themes presented in a text. Explain how the main ideas or themes of a text are addressed by the author. Explain the impact the rhetorical techniques and content had upon the text purpose. May exhibit some <u>key misconceptions</u> , regarding the integration of more complex ideas and processes.	• Complete a rhetorical analysis graphic organizer for two additional examples • Compare and contrast the rhetorical strategies used in each
BEGINNING Score 1.0	The student will: Recognize or recall specific vocabulary (content, entertain, ethos, inform, logos, pathos, persuade, purpose, rhetoric, omit) Identify the purpose of a text. Identify the main ideas or themes in a text. Annotate the use of ethos, logos, and pathos in a text	• Annotate the use of ethos, logos, and pathos in a text

CBE Tool #6
Hess, Colby, & Joseph
(p. 91, 2020)



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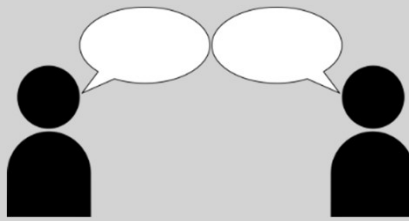
Three Options for Assessing the Same Competency: Using Rhetorical Strategies in Communication (Proviso East HS)		
ACA Pathway Arts & Communications	BHA Pathway Business & Human Services	STEM Pathway Sci, Tech, Engineering, Math
Choose a product that carries one or more brand...	Choose a highly debatable political issue...	Choose a highly debatable scientific issue...
<ul style="list-style-type: none"> Annotate an example Complete a graphic organizer comparing two examples Use Flip grid to get and give feedback from peers 	<ul style="list-style-type: none"> Annotate an example Complete a graphic organizer comparing two examples Use Flip grid to get and give feedback from peers 	<ul style="list-style-type: none"> Annotate an example Complete a graphic organizer comparing two examples Use Flip grid to get and give feedback from peers
<ul style="list-style-type: none"> Create an original advertisement for the product you selected in Part 1, (commercial, a flyer, window poster, etc.) 	<ul style="list-style-type: none"> Create an original political promise for the debatable political topic you selected in Part 1, (commercial, a pamphlet, speech, etc.) 	<ul style="list-style-type: none"> Create an original scientific treatise for the debatable scientific topic you selected in Part 1, (journal article, infographic, speech, etc.)
<ul style="list-style-type: none"> Write a reflection on your development process and decisions made. 	<ul style="list-style-type: none"> Write a reflection on your development process and decisions made. 	<ul style="list-style-type: none"> Write a reflection on your development process and decisions made.
Hess, Colby, & Joseph (p. 100-102, 2020)		

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Stop & Reflect

How do these three choices support the idea of a task neutral performance scale (same competency, but different evidence)?



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Traditional Grading Systems



1. Based on assessment methods (quizzes, tests, homework, projects, etc.). One grade/entry is given per assessment.
2. Assessments are based on a percentage system. Criteria for success may be unclear.
3. Use an uncertain mix of assessment, achievement, effort, and behavior to determine the final grade. May use late penalties and extra credit.
4. Everything goes in the grade book – regardless of purpose.
5. Include every score, regardless of when it was collected. Assessments record the average – not the best – work.

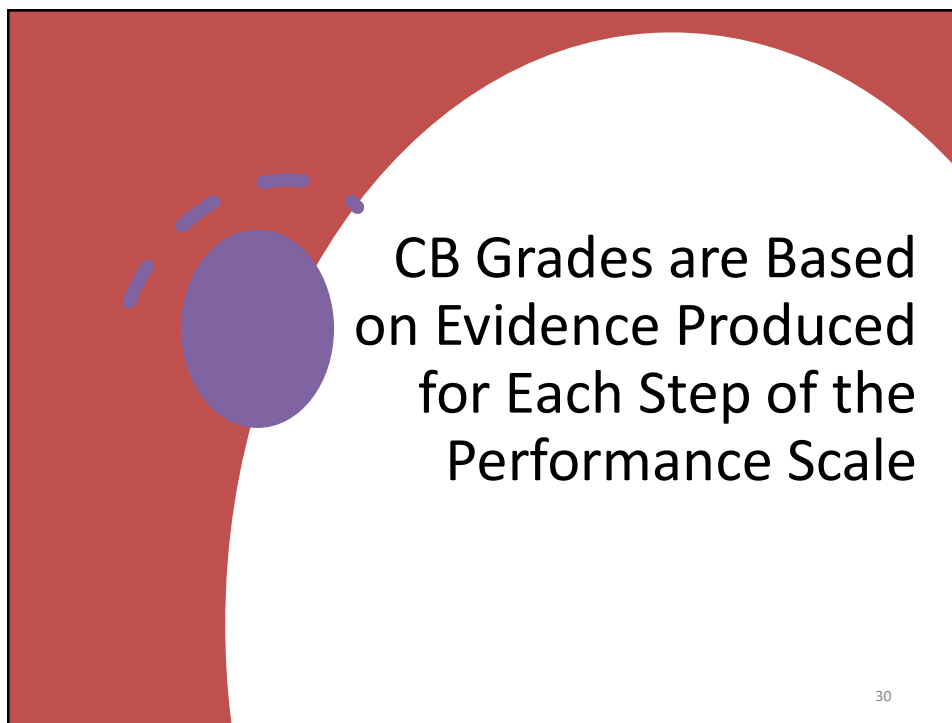
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TABLE 3.2 Comparing Standards-Based Grading With Evidence-Based Grading

Standards-based grading is based on learning goals described in each content standard.	Evidence-based grading is based on learning goals described in competencies, which include both content and performance descriptors (how content knowledge is demonstrated).
Each standard is tracked during a school year. A student can be considered "proficient" if she or he scores high enough (above a set cut score) on an end-of-course exam assessing a sample of several prioritized standards or on multiple smaller assessments of the same standard.	Each competency is tracked, sometimes across grade levels, until a student's body of evidence (BOE) demonstrates sufficiency of evidence that the student has mastered those learning goals. Standards that support learning that underlies competencies are built into performance scales.
If more than one standard is assessed on a single test or assessment task, one grade is given per standard, based on test questions that address each standard.	Grades are given based on the sufficiency of evidence produced by a student using CB assessments. Evidence for a competency may come from tasks completed in multiple courses or content areas (e.g., writing portfolios with work samples across content areas).
Standards are criterion-based.	Competencies are criterion-based and may have had staff and community input into developing them.
Assessment criteria (skills and concepts) are communicated to students and parents ahead of time.	Assessment criteria (application of skills, concepts, and personal skills) are communicated to students and parents ahead of time.
Usually a set number of assignments are completed by all students.	The evidence produced is more important than the number of assignments completed. Students can demonstrate proficiency based on different, fewer, or more pieces of evidence.
Grades measure academic achievement only; or grades separate academic achievement from effort and behavior. No penalties or extra credit affect the grade given.	CBE systems can generate grades or performance descriptions for both academic and personal skills (e.g. work or study habits, self-regulation), based on how effectively they are applied to the processes and products of learning. No penalties or extra credit affect the grade given.
Selected assessments (tests, quizzes, projects, etc.) are usually averaged to determine an overall grade. Strengths and weaknesses based on assessments of individual standards might also be reported (e.g., an overall letter grade is given for science but identifies investigation skills as weaker than knowledge of science concepts).	More-complex tasks and most-recent assessments can be given greater weight. Students may have input into designing assessment tasks or on which assessment evidence in their BOE best reflects learning. Self-reflections also contribute evidence. CB reporting is based on accumulating evidence in the BOE and is not the same as a grade.
Emphasize the most recent evidence of learning when grading.	Students move from one level of learning to the next, based on understanding described in the competency and performance scales, without regard to time or pacing. Students are given multiple opportunities to demonstrate learning and replace lower grades. Evidence-based grades can consider both progress made and demonstrated mastery.

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CB Grades are Based
on Evidence Produced
for Each Step of the
Performance Scale

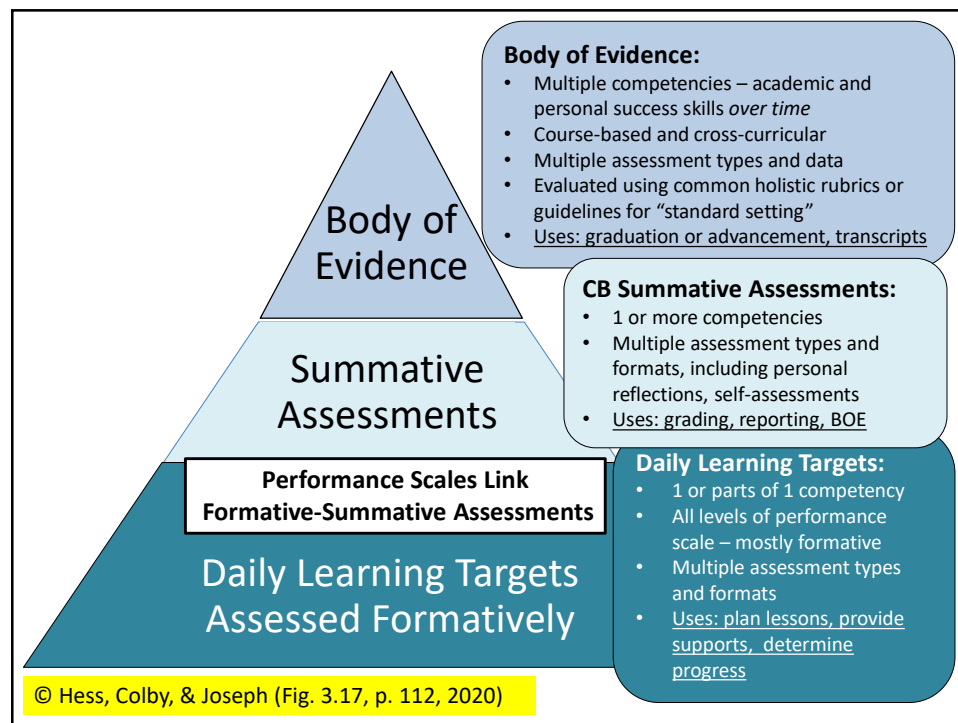
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An Assessment Portfolio “Metaphor”



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In summary...

CBE is a system in which students move from one level of learning to the next based on their understanding of pre-determined competencies without regard to seat time, days, or hours.

A competency-based system *may* utilize a standards-based report card to communicate student learning; however, **in a CBE system, evidence-based reporting uses a “Body of Evidence”** (student work samples)

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Recommended Resources

- BEST Delf-Direction Toolkit - <https://www.best-future.org/>
- Brandt. (2020). Measuring student success skills: A review of the literature on self-directed learning.
<https://www.nciea.org/library/assessing-21st-century-skills-resources>
- *Essential Skills and Dispositions Developmental Framework*. (2015). <https://www.inflexion.org/essential-skills-and-dispositions-development-frameworks/>
- Hess (2018). *A Local Assessment Toolkit to Promote Deeper Learning*. Corwin
 - Hess PLC Tools 9 and 11, <http://www.karin-hess.com/formative-and-performance-assessments>
- Hess, Colby, & Joseph (2020). *Deeper Competency-Based Learning: Making Equitable, Student-Centered, Sustainable Shifts*. Corwin

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Recommended Resources

- Levine & Patrick (2019). What is competency-based education? An updated definition. Retrieved at <https://www.inacol.org/resource/what-is-competency-based-education-an-updated-definition/>.
- NH Model Competencies - Retrieved at <https://www.karin-hess.com/materials-for-workshops-and-keynotes>
- Video & article: Why Does Memorization Reign Supreme in Traditional Learning? INSIGHTS (09 MAY 2018) POSTED BY ULCCA JOSHI HANSEN, EDUCATION REIMAGINED. <https://education-reimagined.org/why-memorization-traditional-learning/>

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