PLAN Pilot Webinar Series

Webinar 1 | October 2022

What is Performance-Based Learning and Assessment?

With Dr. Linda Darling-Hammond, President and CEO of the Learning Policy Institute

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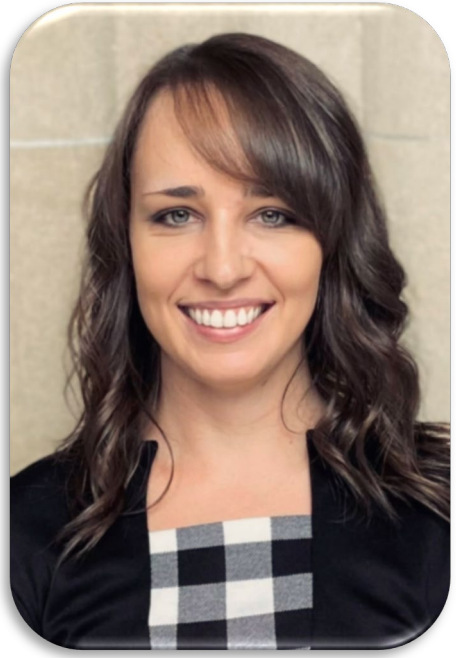

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Charles E. Ducommun Professor of Education Emeritus at Stanford University, where she founded the Stanford Center for Opportunity Policy in Education and served as faculty sponsor of the Stanford Teacher Education Program.

In 2006, Dr. Darling-Hammond was named one of the nation's 10 most influential people affecting educational policy. She has led two federal education policy transition teams for new presidential administrations.

EDUCATION

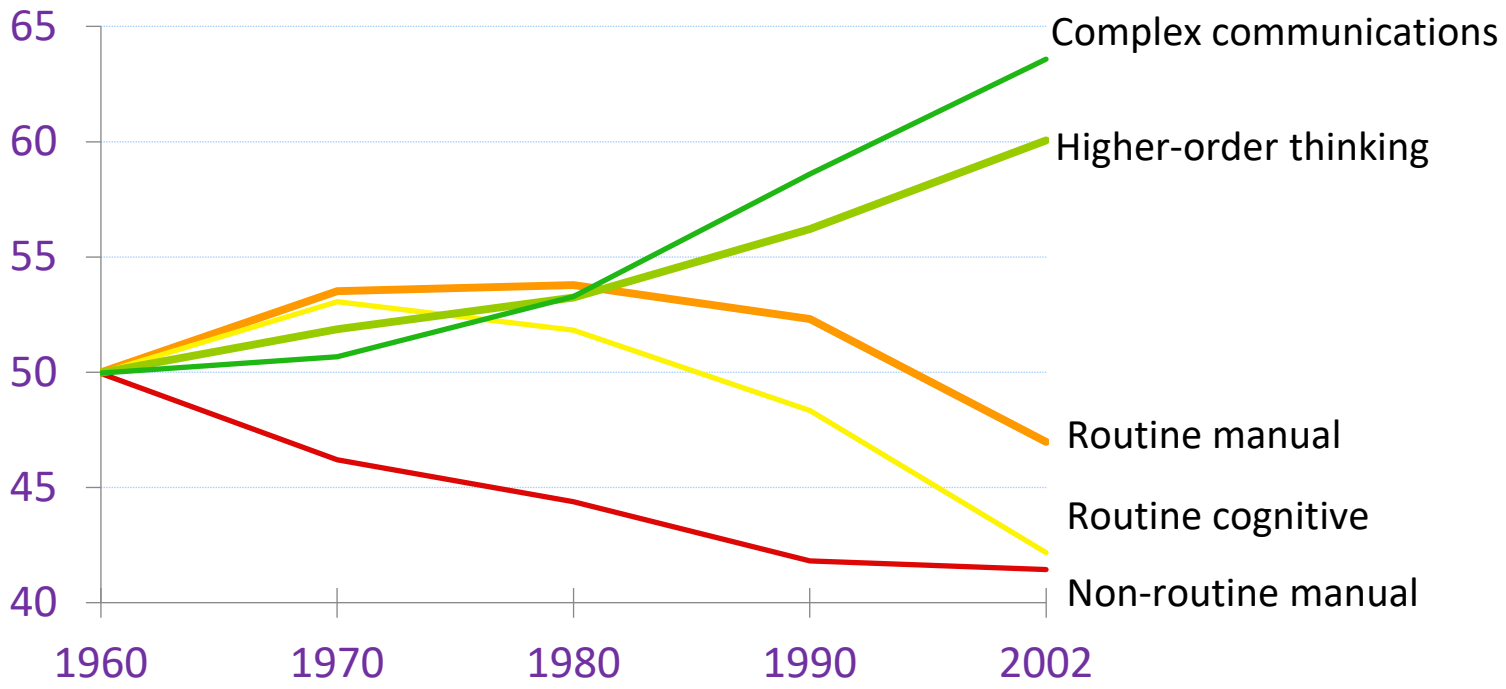
Ed.D., Temple University (with highest distinction)

B.A., Yale University (magna cum laude)

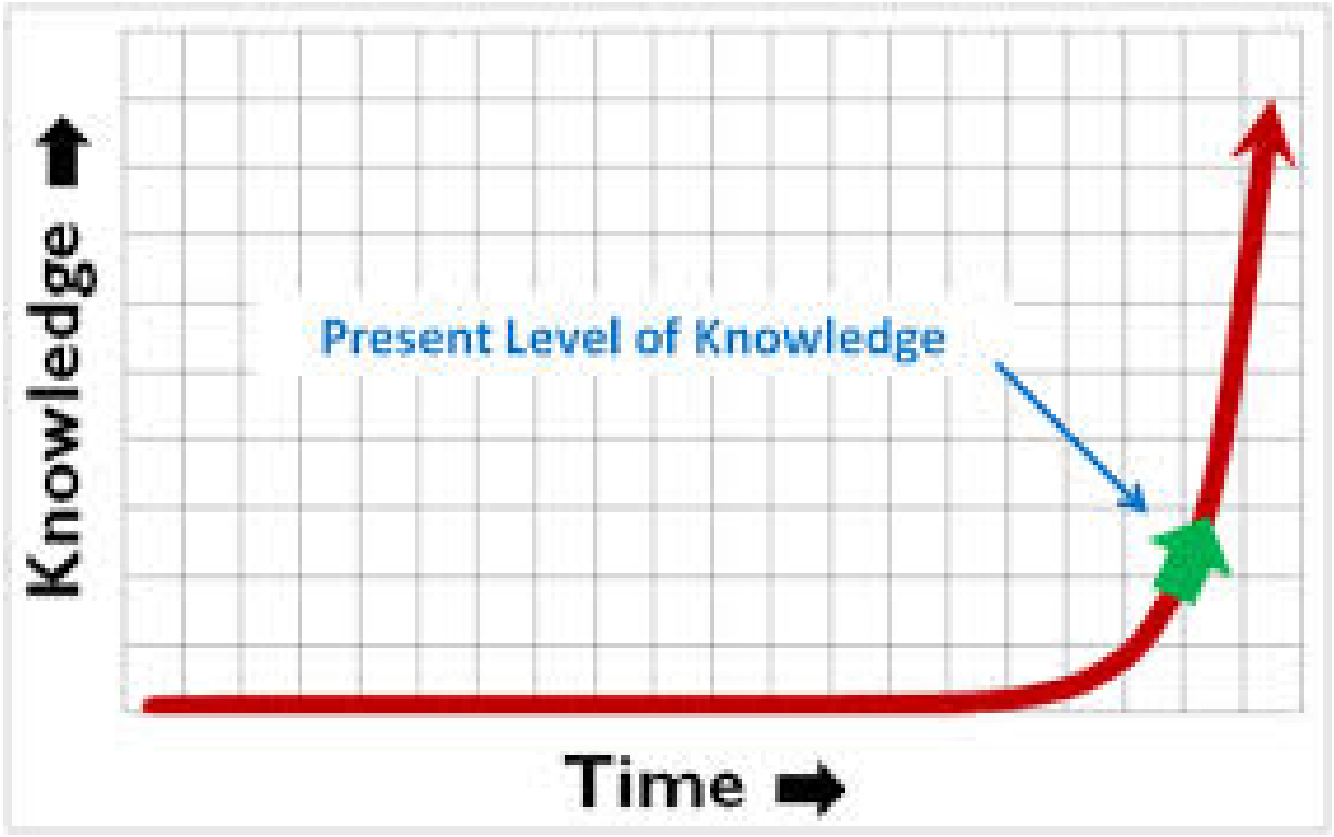
Learning Policy Institute

Assessment for Learning:
Why and How Performance Matters

Demand for Skills is Changing



Knowledge is Growing



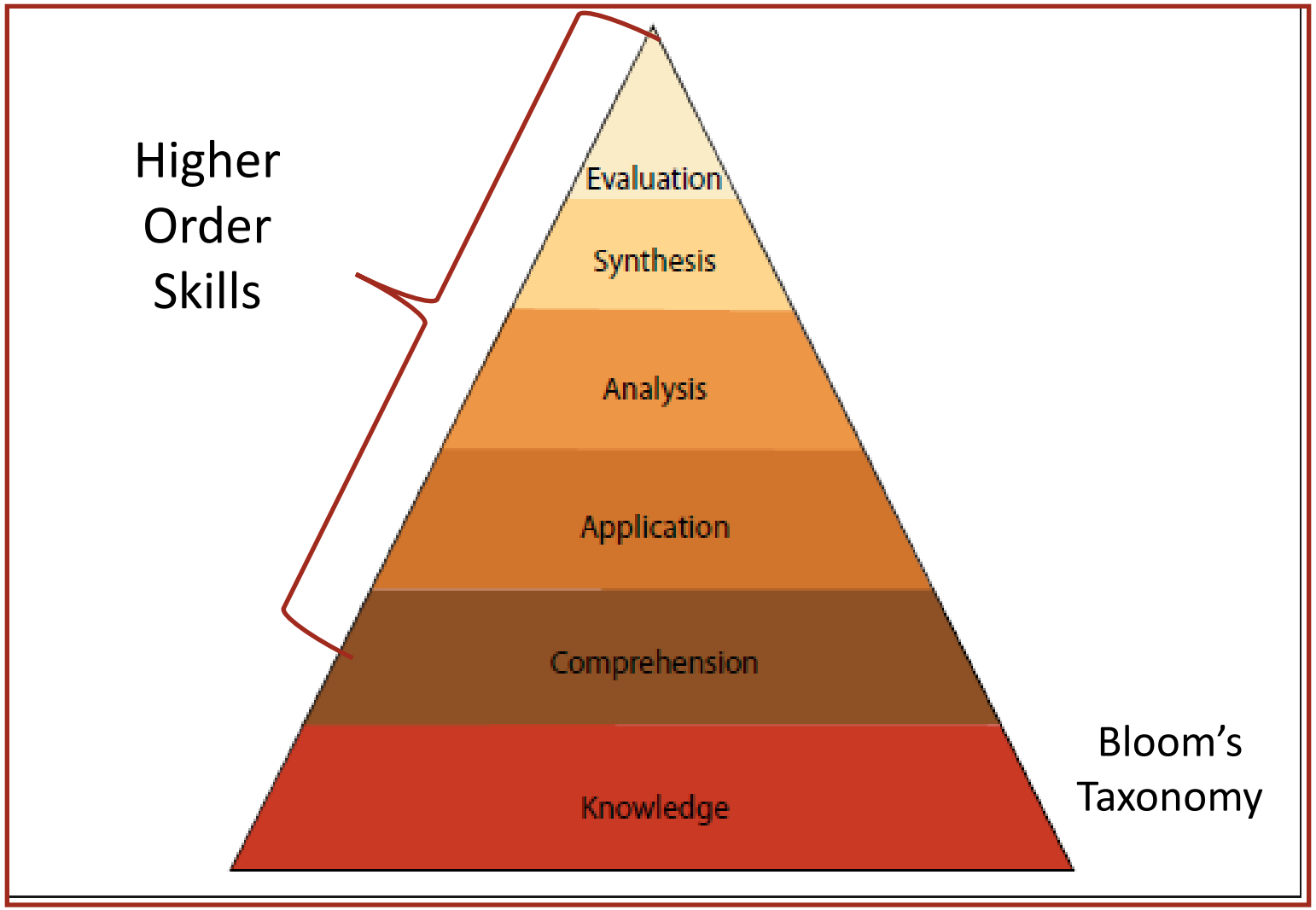

Google
B44
Lobby

Teaching for Learning Ability

The abilities to

- Transfer and apply knowledge
- Analyze, evaluate, weigh and balance
- Communicate and collaborate
- Take initiative
- Find and use resources
- Plan and implement
- Self-manage and improve
- Learn to learn

Learning Ability is Built on Higher Order Skills



Recent US Tests Have Often Focused on on Lower-Level Skills

- As a result of NCLB, most states phased out performance assessments that could assess higher-order skills.
- RAND study of 17 states' tests in 2015: Only 2% of math items and 21% of ELA items assessed higher-order skills.

How Teaching to Tests of Low-Level Skills Affects Student Outcomes

"I have seen more students who can pass [the test] but cannot apply those skills to anything if it's not in the test format… *As for higher quality teaching, I'm not sure I would call it that…*."

–Texas Teacher

What Cognitive Skills Are Used?

Social Studies Assessment

Who was president of the United States at the beginning of the Korean War?

A. John F. Kennedy

B. Franklin D. Roosevelt

C. Dwight Eisenhower

D. Harry Truman

E. Don’t know

The Battle of the Bulge occurred during …

A. The Vietnam War

B. World War II

C. World War I

D. The Civil War

E. Don’t know

Washington Civics Classroom-Based Assessment

High School - Constitutional Issues CBA

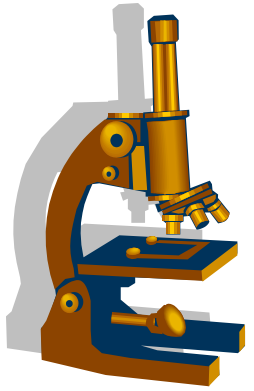
Citizens in a democracy have the right and responsibility to make informed decisions. You will make an informed decision on a public issue after researching and discussing different perspectives on this issue.

Directions to Students: **In a cohesive paper or presentation, you will:**

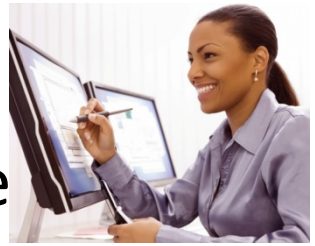
State a position on an issue that considers the interaction between individual rights and the common good AND includes an analysis of how to advocate for your position.

- Provide reason(s) for your position that include:
  - **An analysis of how the Constitution promotes a specific ideal or principle logically connected to your position on the issue.**
  - **An evaluation of how well the Constitution was upheld by a court case OR a government policy related to your position on the issue.**
  - **A fair interpretation of a position on the issue that contrasts with your own.**
- Make explicit references within the paper or presentation to three or more credible sources that provide relevant information AND cite sources within the paper, presentation, or bibliography.

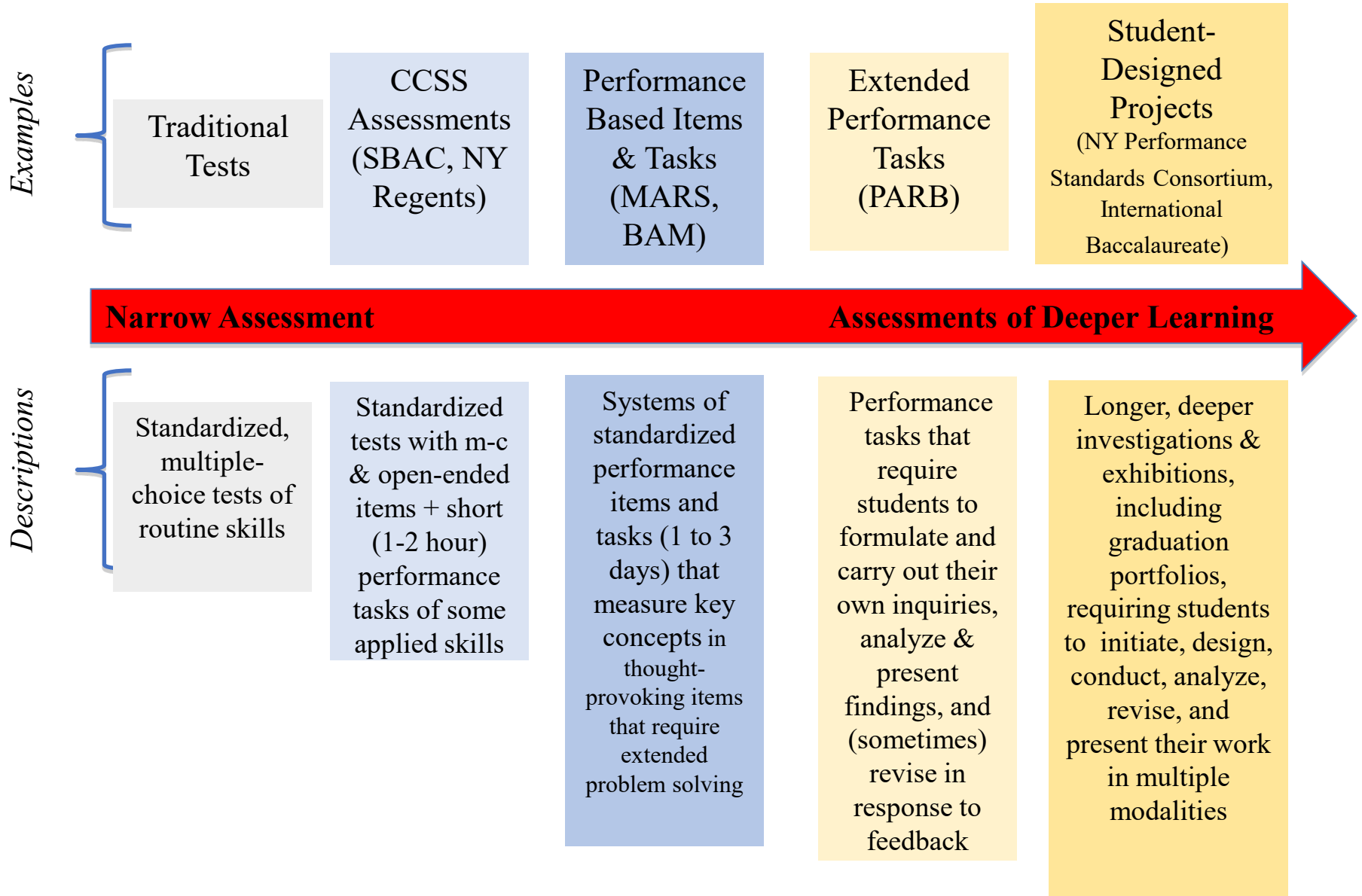
Performance Tasks Can Assess Critical Abilities



- ✓Research and analysis
- ✓Experimentation and evaluation
- ✓Written communication (reading, writing)
- ✓Oral communication (speaking, listening)
- ✓Use of technology
- ✓Collaboration,
- ✓Modeling, design, and proble



Assessment Continuum



NY State Is Exploring a Blended Assessment Strategy

… in which state assessments and classroom-based assessments work together to provide a picture of student learning

- PLAN Pilot will study 3 performance-based learning and assessment approaches
  - NY Performance Standards Consortium
  - International Baccalaureate
  - Project-based learning schools

Other Nations Incorporate Performance Tasks into Assessment Systems

Often They Combine:

-- Tests with open-ended essays and problems to be solved and explained

with

-- Classroom-embedded performance tasks that require students to design and conduct investigations, collect data, analyze and present findings in writing, orally, and with technology

Science Assessments in Singapore, Hong Kong, Australia, UK

Students:

- Identify a problem, design and plan an investigation
- Make and record observations
- Analyze data
- Write a report

This task counts for 20% to 50% of the examination score

Performance Assessments Guide Both Judgments and Learning

Driving Tests

Eye Exams

Sports Events

Medical Boards

Engineering Exams

In Their Own Words …

Research Shows that:

- Students who regularly engage in performance assessments develop complex skills at higher levels *and* score as well or better on traditional tests.
- Students find well-designed performance tasks engaging and interesting, and feel they learn from them.
- College success rates are higher for students from schools that require portfolios and performance assessments that have been scored, revised, and defended to meet standards.

Research also shows that:

- Teachers who are involved in designing, implementing, and scoring performance assessments become more skilled at curriculum design and instructional support, and develop shared standards for quality work.
- When professional learning is organized around student work from these assessments, they become more diagnostic and effective, especially in working with high-need students.

New York Performance Standards Consortium

The New York Performance Standards Consortium was founded two decades ago on the belief that there was a better way to assess student learning than dependence upon standardized testing.

Instead of basing a student's future on a one-day (or two- or three-day) test, an assessment system should reflect a fuller picture of what students know and can do.

The Consortium's system is based on in-depth literacy, mathematical problem-solving, application of the scientific method, social studies research, a span of mediums for exhibiting learning, and a chance for students to have a voice and proud ownership of their work.

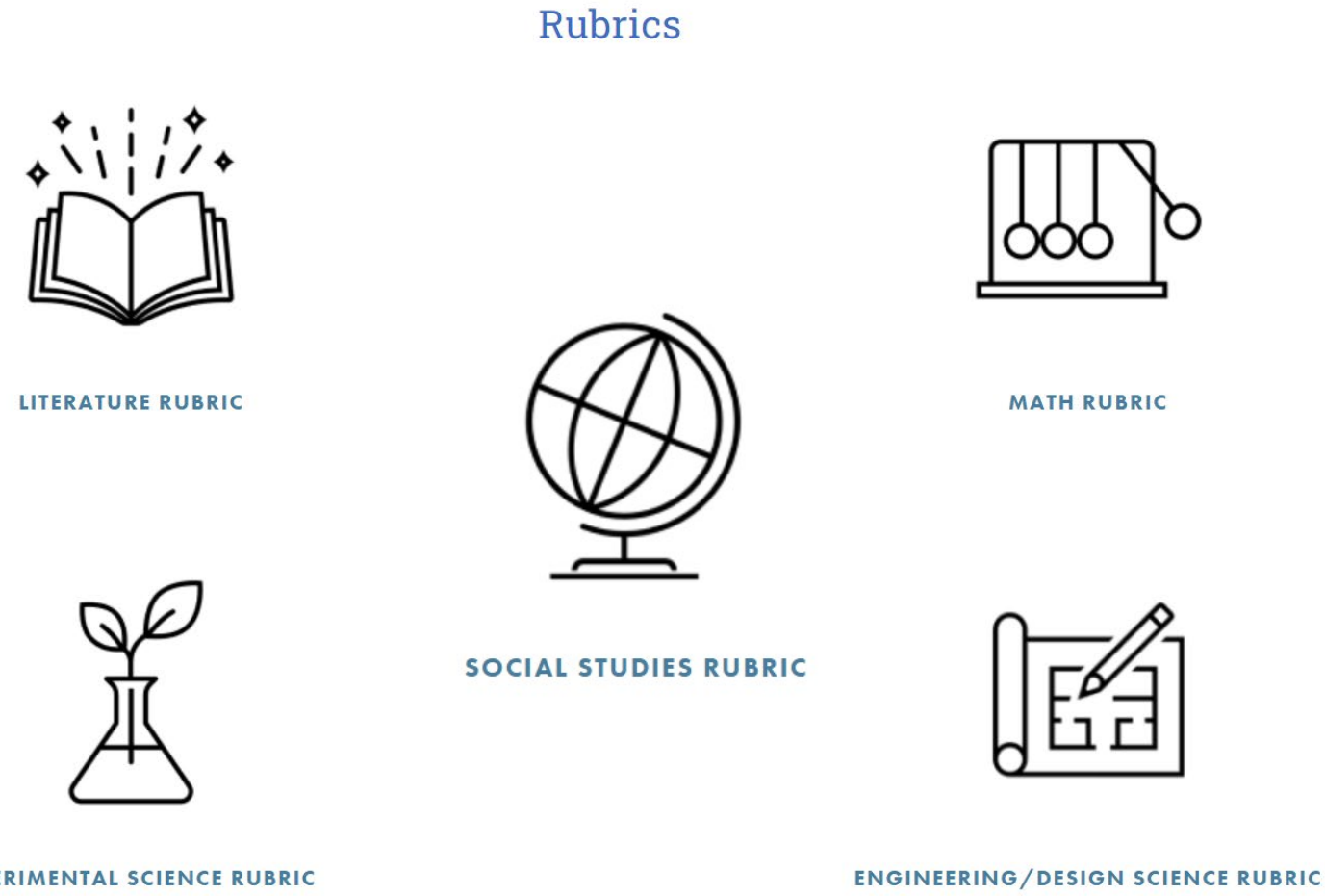
Structured portfolio with exhibitions to meet mastery standards

• Neuroscience: Performance Based Assessment Task (NYPSC)

Description:

You will first generate an experimental question and hypothesis based on background research. Next, you will design and execute an experiment that tests your hypothesis. Then you will apply statistical analysis to your results in order to evaluate your hypothesis. Finally, you will write a primary research article following the conventions of science writing.

The Power of Rubrics for Teaching, Learning, and Assessment



Experimental Science

New York Performance Standards Consortium
Experimental Science

Circle one: **Teacher** **External Evaluator**
Circle one: **Written** **Oral Defense**

Overall Holistic Evaluation_____

Student_____

Title of Experiment_____

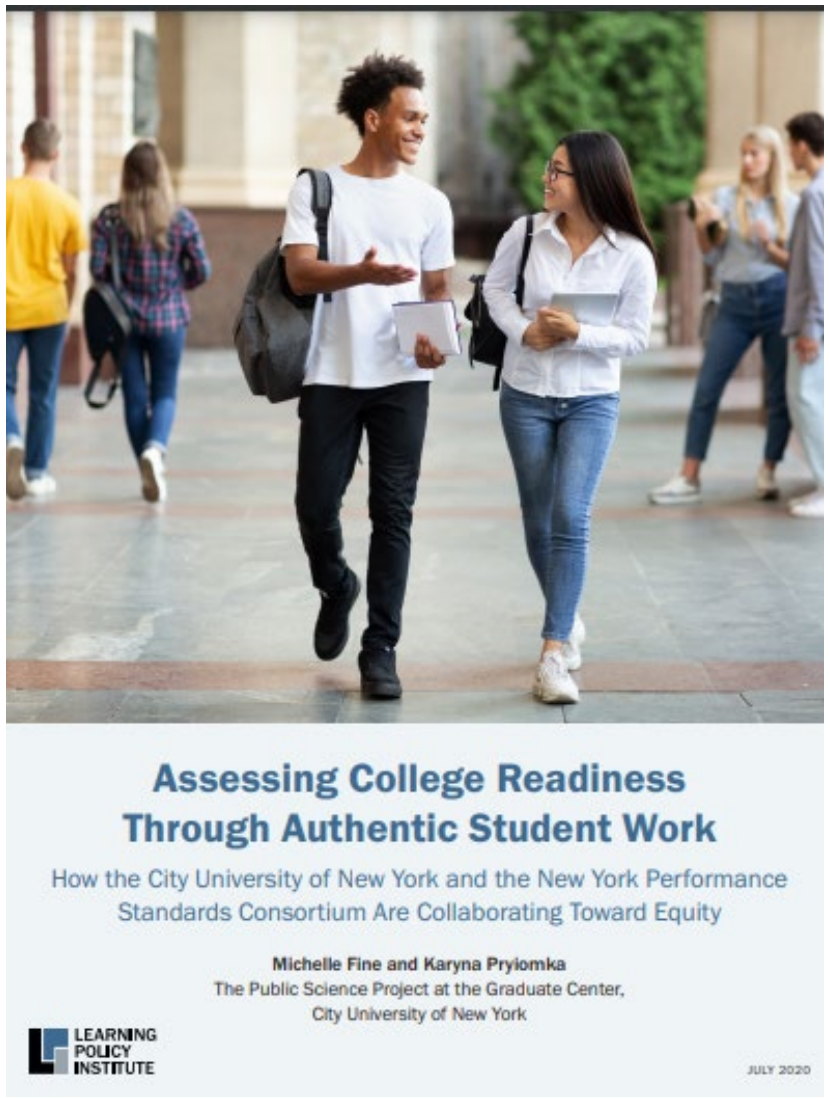
Evaluator (Print name)_____

Signature_____ **Date**_____

03/2017

Performance Indicators	Outstanding	Good	Competent	Needs Revision
Contextualize	Background research has been thoroughly conducted using at least two original sources. • Sources are all appropriately cited. • The significance of the problem is clearly stated • The hypotheses/theses are grounded in the background research.	Background research has been thoroughly conducted. • Sources are appropriately cited. • The significance of the problem is stated • The hypotheses/theses are relevant to the background research.	Background research is included in the introduction. • Sources are cited. • The significance of the problem is stated • The hypotheses/theses are clearly stated.	Background research is not included in the introduction. • Sources are not cited. • The significance of the problem is not stated • The hypotheses/theses are not • stated.
Critique Experimental Design	Identifies, describes and controls relevant variables. • Thoughtfully evaluates the procedure, data sampling method*, and/or set up • Clearly describes bias in the design	Identifies, describes and controls most relevant variables. • Evaluates the procedure, data sampling method*, and/or set up • Clearly describes bias in the design	Identifies, describes and controls some relevant variables. • Evaluates the procedure, data sampling method*, and/or set up • Attempts to describe bias in the design	Does not identify, describe or control any variables. • Does not evaluate the procedure or sampling method and/or set up • Does not attempt to describe bias in the design
Collect, Curate*, Organize, and Present Data	Collects or curates* data in a reliable and valid manner. • Presents relevant data that is consistent with the problem. • Generates appropriate tables, charts and graphs with data and makes appropriate calculations. • Conducts thorough mathematical analysis of the data.	Collects or curates* data in a reliable and valid manner. • Presents relevant data that is consistent with the problem. • Generates appropriate tables, charts and graphs with data and/or makes appropriate calculations. • Conducts mathematical analysis of the data.	Collects or curates* data in a reliable and valid manner. • Presents data that is consistent with the problem. • Generates tables, charts and graphs with data. • Conducts analysis of the data.	Collects or curates* data in a non-reliable and/or invalid manner. • Does not present data or presents data that is not relevant to the problem. • Does not generate tables, charts and graphs. • Does not analyze the data.
Analyze and Interpret Results	Draws thoughtful conclusions that are supported by the data. • Relates conclusions to original question. • Thoroughly describes sources of error and their effects on the data or identifies limitations of data & conclusion*.	Draws conclusions that are supported by the data. • Relates conclusions to original question. • Describes several sources of error and their effects on the data or the limitations of data & conclusion*.	Draws conclusions that are partially supported by the data. • Attempts to relate conclusions to original question. • Describes sources of error and attempts to describe their effects on the data or the limitations of the data & conclusion*	Draws no conclusions or draws conclusions that are not supported by the data. • Does not attempt to relate conclusions to original question. • Does not describe sources of error or does not attempt to describe their effects on the data or limitations of data*.
Revise Original Design	Proposes effective and relevant revisions for the experimental plan (and investigative plan*) to lessen the effects of bias and sources of error. • Poses thoughtful and relevant questions for future research.	Proposes relevant revisions for the experimental plan (and investigative plan*) to lessen the effects of bias and sources of error. • Poses relevant questions for future research.	Proposes revisions for the experimental plan (and investigative plan*) to lessen the effects of bias and sources of error. • Poses questions for future research.	Does not propose revisions for the experimental plan (and investigative plan*). • Does not pose questions for future research.
Defense (for oral component only)	Thoroughly answers questions relevant to the experiment and related topics.	Adequately answers questions relevant to the experiment and related topics.	Adequately answers questions relevant to the experiment..	Does not adequately answer questions relevant to the experiment.

* When working with "big data."



NY Performance Standards Consortium students who graduated through a portfolio of performance tasks outperform similar students at CUNY (who scored higher on the SAT) in terms of grades, course credits, and progression through college. African American males are especially advantaged.

Key to Educative Assessments

- Are infused in every course
- Build on student interests and contexts
- Provide clear pathways through the task
- Offer multiple pathways for learning and performance
- Are shared beyond the classroom
- Use rubrics for teaching and feedback by students and peers as well as teachers
- A culture of revision and redemption

International Baccalaureate

Approaches to teaching

The same six approaches underpin teaching in all IB programmes. The approaches are deliberately broad, designed to give teachers the flexibility to choose specific strategies to employ that best reflect their own particular contexts and the needs of their students.

In all IB programmes, teaching is:

- **based on inquiry:** A strong emphasis is placed on students finding their own information and constructing their own understandings.
- **focused on conceptual understanding:** Concepts are explored in order to both deepen disciplinary understandings and to help students make connections and transfer learning to new contexts.
- **developed in local and global contexts:** Teaching uses real-life contexts and examples, and students are encouraged to process new information by connecting it to their own experiences and to the world around them.
- **focused on effective teamwork and collaboration:** This includes promoting teamwork and collaboration between students, but it also refers to the collaborative relationship between teachers and students.
- **designed to remove barriers to learning:** Teaching is inclusive and values diversity. It affirms students' identities and aims to create learning opportunities that enable every student to develop and pursue appropriate personal goals.
- **informed by assessment:** Assessment plays a crucial role in supporting, as well as measuring, learning. This approach also recognizes the crucial role of providing students with effective feedback.

IB Assessments

IB assessments use a variety of tasks, including examination papers, written assignments like essays, oral interviews, scientific and mathematical investigations, fieldwork projects and artistic performances, which are completed by candidates at various times during their course and marked either by teachers with moderation or by external examiners (also teachers in other schools).

IB – Language and Literature Course

III. Assessment model

It is the intention of this course that students are able to fulfill the following assessment objectives:

1. Know, understand and interpret:
   - a range of texts, works and/or performances, and their meanings and implications
   - contexts in which texts are written and/or received
   - elements of literary, stylistic, rhetorical, visual and/or performance craft
   - features of particular text types and literary forms.
2. Analyse and evaluate:
   - ways in which the use of language creates meaning
   - uses and effects of literary, stylistic, rhetorical, visual or theatrical techniques
   - relationships among different texts
   - ways in which texts may offer perspectives on human concerns.
3. Communicate:
   - ideas in clear, logical and persuasive ways
   - in a range of styles, registers and for a variety of purposes and situations
   - (for literature and performance only) ideas, emotion, character and atmosphere through performance.

Assessment at a glance

Type of assessment	Format of assessment	Time (hours)		Weighting of final grade (%)	
		SL	HL	SL	HL
External					
Paper 1: Guided textual analysis	Guided analysis of unseen non-literary passage/passages from different text types.	1.25	2.25	35	35
Paper 2: Comparative essay	Comparative essay based on two literary works written in response to a choice of one out of four questions.	1.75	1.75	35	25
HL essay	Written coursework component: 1,200–1,500 word essay on one literary work or a non-literary body of work studied.				20
Internal					
Individual oral	Prepared oral response on the way that one literary work and one non-literary body of work studied have approached a common global issue.			30	20

IB:
Biology Course

Assessment at a glance

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		3	80
Paper 1	30 multiple-choice questions	0.75	20
Paper 2	Data-based, short answer and extended response questions	1.25	40
Paper 3	Data-based, short answer and extended response questions	1	20
Internal		10	20
Individual investigation	Investigation and write-up of 6 to 12 pages	10	20

IV. Sample questions

- Cyclins were discovered by Timothy R. Hunt in 1982 while studying sea urchins. What is a function of cyclins? (Paper 1)

- Antibiotics can be used to treat bacterial infections in human tissues because of differences in cell structure between prokaryotes and eukaryotes.
  - o Distinguish between the structure of prokaryotes and eukaryotes.
  - o Evaluate the drug tests that Florey and Chain carried out on penicillin.
  - o Explain the reasons for the ineffectiveness of antibiotics in the treatment of viral diseases. (Paper 2)

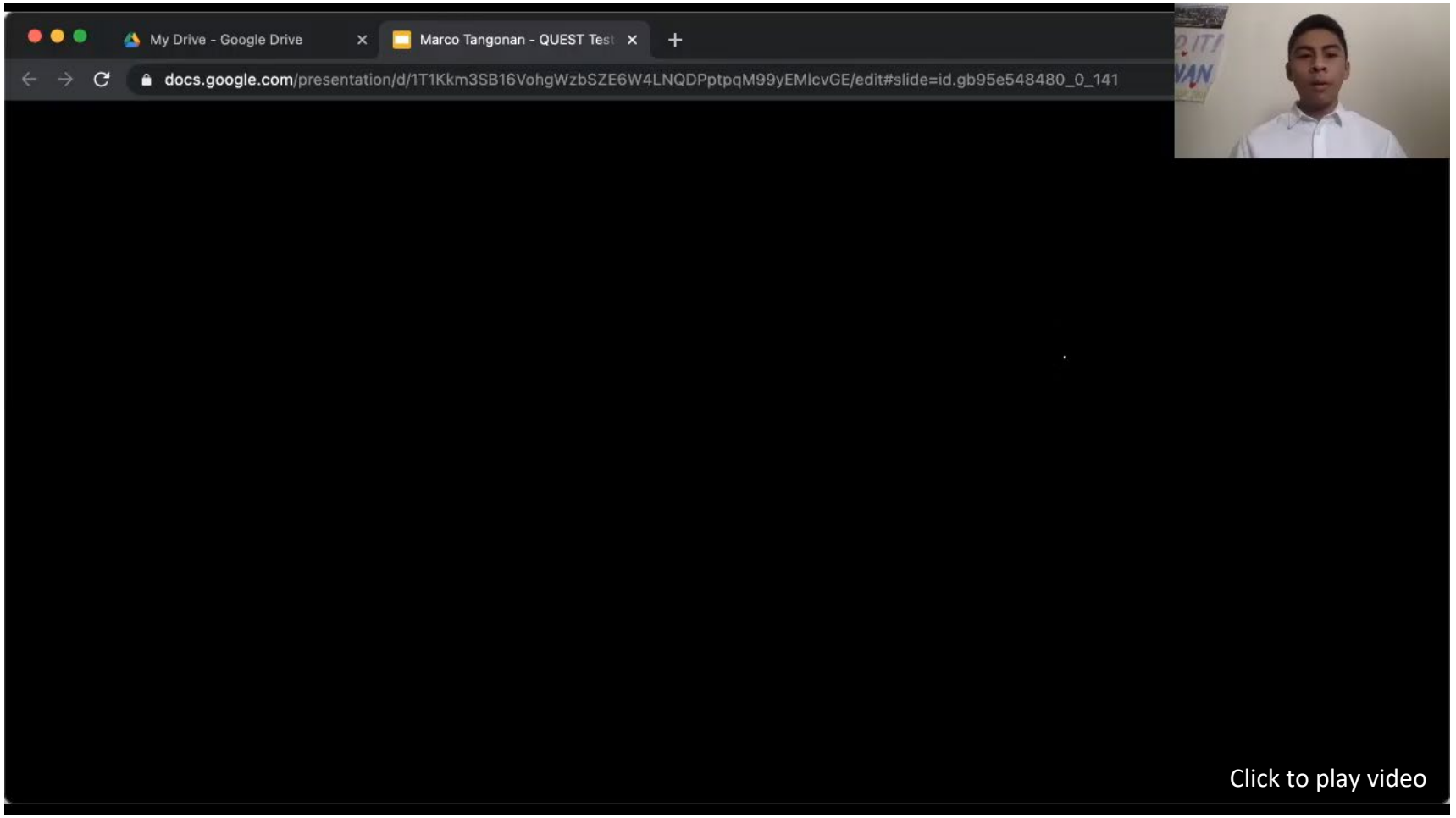
- The company BASF produces a genetically modified potato called Amflora. Outline the purpose of modifying the potato. (Paper 3)

Research finds that IB Students

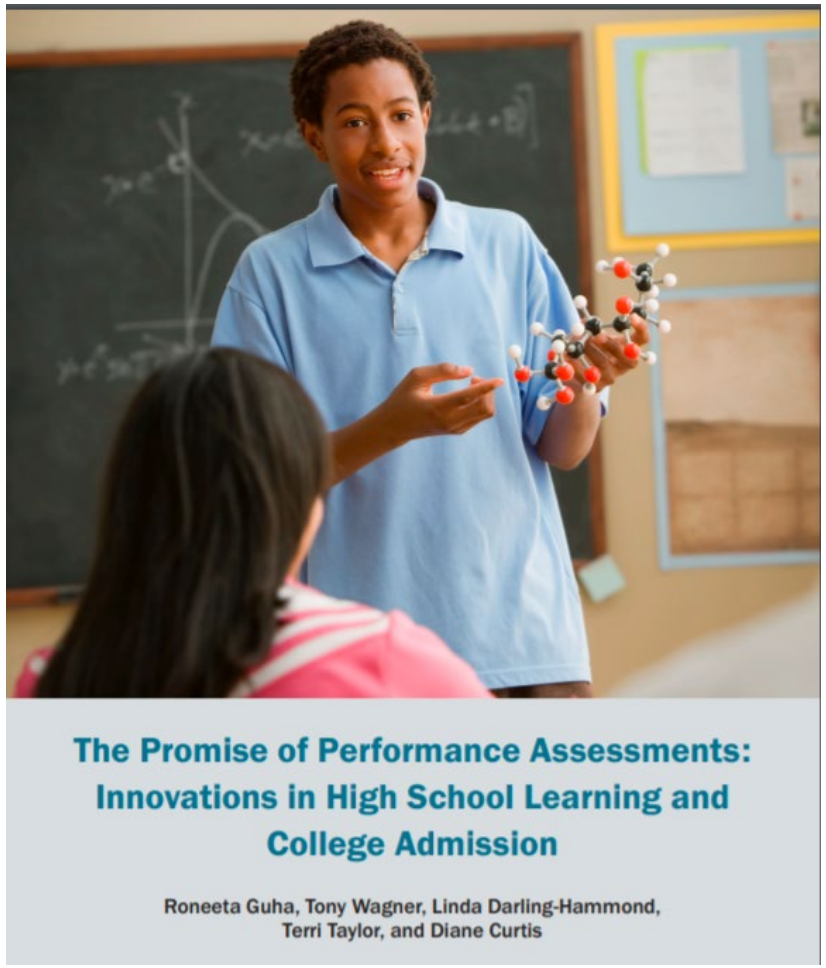
- Have stronger research abilities, critical thinking skills, creativity, perseverance, and ability to take on challenges
- Greater motivation and engagement
- Higher rates of college-going, persistence, and graduation than similar peers in other schools (especially for low-income students)

https://www.ibo.org/globalassets/new-structure/research/pdfs/key-findings-from-research-on-the-impact-of-the-dp-en.pdf

Exhibitions of Knowledge



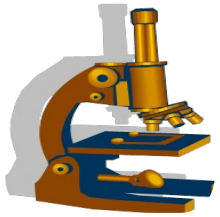
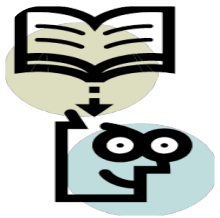
Use of High School Performance Assessments is Expanding



- 1000+ colleges are now test-optional

- School networks are developing authentic work:
- NY Performance Standards Consortium
- California Performance Assessment Collaborative
- Hawaii Performance Assessment Collaborative
- Massachusetts Performance Assessment Network
- Initiatives in Colorado, North Dakota, New Hampshire, Rhode Island, Oregon

Summary: transcript, GPA, CCR test scores, statement of goals, distinctive accomplishments or "badges," short essay, 2-minute video clip from portfolio presentation, table of contents

Science & Math Inquiry		Investigation of climate change trends in a local community (science and mathematics), includes paper, data set, and PowerPoint
Social Science Inquiry		What social and political forces influenced the passage of the 14th Amendment to the Constitution? (historical inquiry)
Literary Analysis		The American Dream in 20th century literature (literary analysis), includes videotaped presentation to panel
World Language Exhibition		Demonstration of competence in world language : Tamil (audiotaped conversation and paper)

Digital Portfolios are Being Designed for New College Portals

How Might Schools Engage this Work?

- Engage in IB, new AP courses
- Develop and score tasks with colleagues
- Select performance tasks mapped to subjects and standards from Performance Assessment Resource Bank
- Jointly score and discuss samples of student work as a means to plan curriculum
- Embed cycles of feedback and revision on authentic tasks in course planning

Learning Progressions

- ELA and math learning progressions/trajectories
- Skills/dispositions - collaboration, communication, creativity, self-direction

Performance Tasks

- With rubrics and benchmark papers
- Mapped to standards and, as appropriate, learning progressions

Portfolio Frameworks

- Frameworks for collecting and evaluating evidence from performance tasks, exhibitions, internships / applied learning experiences, and oral defenses

Protocols for Designing, Reviewing, & Scoring Tasks

- Guidance for performance task design and development
- Task quality criteria and rubrics
- Scorer training materials and moderation processes

Learning Resources

- Materials for supporting professional development
- Professional learning opportunities (MOOCs, institutes, workshops, coaching)

Policy Supports

- Briefs and case studies describing policy designs and state work with performance assessments
- Implementation guidelines and strategies

Math Performance Task

Rising Cost of a College Education

STUDENT INSTRUCTIONS

A. Task context:

You are a reporter for the *US News and World Report* magazine. (They are the ones who rank colleges). You have been tasked with writing an article about the rising cost of obtaining a college education. In order to be able to write the article you first need to collect and analyze data on the cost of a college education. You will be creating equations and graphs showing the rising cost of education at different types of colleges including an in-state college, a community college, an out-of-state college, and an Ivy League college. You will provide a short (500 - 750 words max) article on the rising cost of college education. It is recommended that you choose schools that are relevant to you. Are there schools that you might consider attending in the future that you might consider researching?

Math Teacher Feedback

"…You learn a lot about how students treat deadlines, the quality of work they pass in, work ethic, deeper understanding. It's a great way to really see your students develop a strong sense of the mathematical practices." (*Rising Cost of College Education*)

Resources

- New York Performance Standards Consortium
- International Baccalaureate
- California Performance Assessment Collaborative
- Performance Assessment Resource Bank
- Center for Collaborative Education
- PBL Works

The Road Ahead

How can we expand the use of assessments that help students develop the competencies needed for school & life?

Coming Soon!

Next:

Performance-Based Learning and Assessment

PBLA in Practice

PLAN Pilot Webinar 2 | Fall 2022

Thank you!

Visit our webpage to…

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about performance-based learning and assessment

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New York State EDUCATION DEPARTMENT

Performance-Based Learning and Assessment Networks Pilot

nysed.gov/plan-pilot