



International Center for Leadership in Education

"Committed to Rigor & Relevance for All Students"

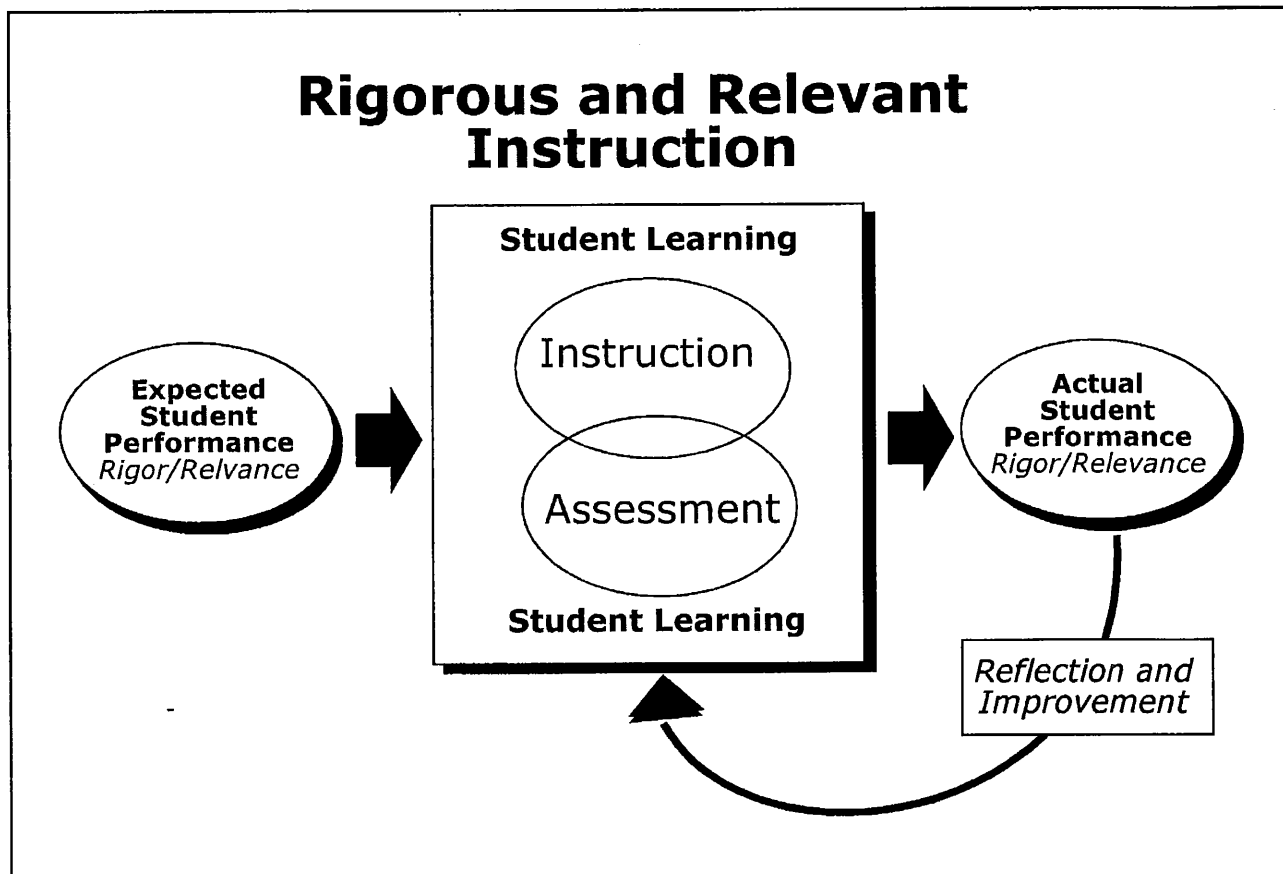
Introduction to R/R Framework: Teaching for Rigor, Relevance and Relationships

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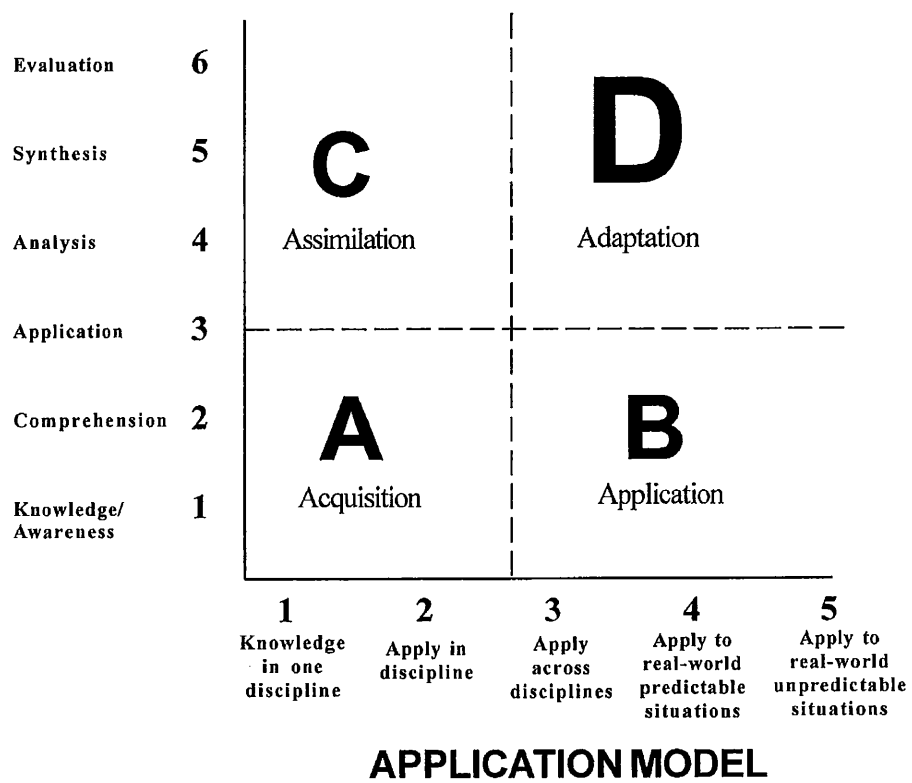
Rigor/Relevance Framework

K N O W L E D G E	T A X O N O M Y	Evaluation	6					
		Synthesis	5	C	D			
		Analysis	4	Assimilation	Adaptation			
		Application	3					
		Understanding	2	A	B			
		Awareness	1	Acquisition	Application			
				1	2	3	4	5
				Knowledge	Apply in discipline	Apply across disciplines	Apply to real-world predictable situations	Apply to real-world unpredictable situations

APPLICATION MODEL



Rigor/Relevance Framework



KNOWLEDGE TAXONOMY VERB LIST

1

KNOWLEDGE

ARRANGE	MATCH
CHECK	NAME
CHOOSE	POINT TO
FIND	RECALL
GROUP	RECITE
IDENTIFY	REPEAT
LABEL	SAY
LIST	SELECT
LOCATE	WRITE

2

COMPREHENSION

ADVANCE	INTERPRET
CALCULATE	OUTLINE
CHANGE	PROJECT
CONVERT	PROPOSE
CONTEMPLATE	REWORD
DEFINE	SUBMIT
EXPLAIN	TRANSFORM
EXTRAPOLATE	TRANSLATE
INFER	VARY

3

APPLICATION

ADOPT	MANIPULATE
CONSUME	MOBILIZE
CAPITALIZE ON	OPERATE
DEVOTE	PUT TO USE
EMPLOY	RELATE
EXERCISE	SOLVE
HANDLE	START
MAINTAIN	TAKE UP
MAKE USE OF	UTILIZE

4

ANALYSIS

ASSAY	INCLUDE
AUDIT	INSPECT
BREAKDOWN	LOOK AT
CANVASS	SCRUTINIZE
CHECK OUT	SIFT
DISSECT	SURVEY
DEDUCE	STUDY
DIVIDE	TEST FOR
EXAMINE	UNCOVER

5

SYNTHESIS

BLEND	DEVELOP
BUILD	EVOLVE
CAUSE	FORM
COMBINE	GENERATE
COMPILE	MAKE UP
COMPOSE	ORIGINATE
CONCEIVE	PRODUCE
CONSTRUCT	REORDER
CREATE	STRUCTURE

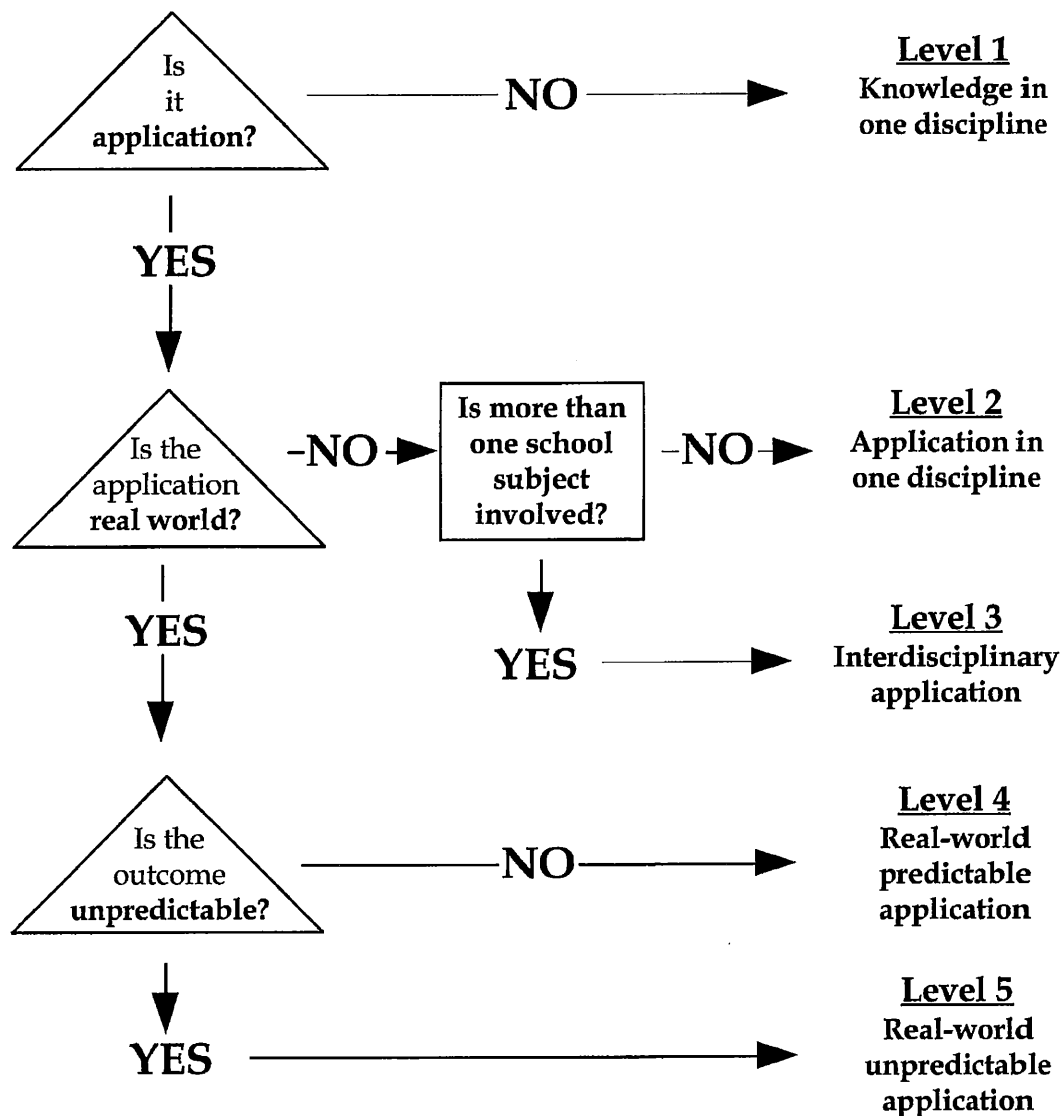
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EVALUATION

ACCEPT	GRADE
APPRAISE	JUDGE
ARBITRATE	PRIORITIZE
ASSESS	RANK
AWARD	RATE
CLASSIFY	REJECT
CRITICIZE	RULE ON
DECIDE	SETTLE
DETERMINE	WEIGH

Application Model Decision Tree

Directions: Select a task, application, or activity and then answer the following questions. See next page for clarification of the questions.



Example of Student Performance in Application Model

Application Model

1. Knowledge in one discipline
2. Apply knowledge in discipline
3. Apply knowledge across disciplines
4. Apply knowledge to real-world predictable situations
5. Apply knowledge to real-world unpredictable situations

Public Speaking

Application Level

- 1 List characteristics of a good speech
- 2 Give a presentation to a class
- 3 Make an oral defense of a senior exhibition or project
- 4 Present a point of view on an issue at a public meeting
- 5 Respond to questions as a student representative at a board of education meeting

Application Level

Subject

1

2

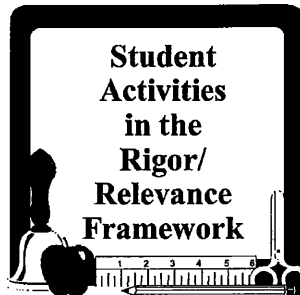
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4

5

I. PLANNING INSTRUCTION

**ENGLISH
LANGUAGE
ARTS**



**ELEMENTARY
EXAMPLES**

6

Quadrant C Assimilation

- Give and seek constructive feedback in order to improve writing.
- Role-play stories.
- Write a poem about yourself.
- Develop a WebQuest on learning language skills.
- Brainstorm as many words as possible to describe an object.
- Create and decipher coded messages.
- Describe mystery objects to partners to strengthen use of descriptions.
- Create word puzzles.

5

4

3

2

1

Quadrant A Acquisition

- Create a drawing, picture, sign, or other graphic to represent a word or concept.
- Put words together in sentence format.
- Retell stories.
- Respond to oral directions.
- Participate in word games.
- Develop outlines from a non-fiction presentation.
- Memorize spelling words.
- Create a list of commonly misspelled words.

Quadrant D Adaptation

- Create new words to describe phenomena or objects.
- Publish a brochure.
- Design and create objects related to a children's book.
- Plan a family vacation trip.
- Research an issue and write a letter to the school board, elected official, or local newspaper.

Quadrant B Application

- Record observations on a field trip.
- Use job related tools or clothing to stimulate writing and drawing about a career.
- Read, analyze, and share content of local newspaper.
- Present a story through a computer graphics application.
- Communicate with e-mail pals in another country.
- Search newspapers for abbreviations and acronyms.
- Write factual stories of personal experiences.

1

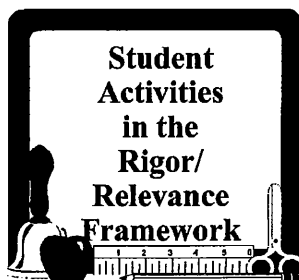
2

3

4

5

MATHEMATICS



MIDDLE LEVEL EXAMPLES

6

Quadrant C Assimilation

- Measure interior angles of polygons and discover the relationship between number of sides and sum of angles.
- Graph the perimeters and areas of squares of different sizes.
- Express probabilities as fractions, percents, or decimals.
- Evaluate equivalency and relationship of decimal and fractions.
- Determine the largest area for a fixed perimeter.
- Fill in missing numbers for ordered pairs for an algebraic function.
- Evaluate objects for similarity and congruence.
- Estimate sums of complex fractions.

5

4

3

Quadrant A Acquisition

- Select computational operation to solve word problems
- Calculate volume of regular solids.
- Measure angles with a protractor.
- Find and measure the sides and angles of a right triangle using the Pythagorean theorem and trigonometric ratios.
- Organize and display collected data, using tables, charts, or graphs.
- Use basic properties of equality to solving equations with one variable.
- Plot the coordinates for quadrilaterals on a grid.

2

1

Quadrant D Adaptation

- Hold a competition to determine when using a calculator or doing mental math is most efficient.
- Obtain historical data about local weather to estimate amount of snow, rain, or sun during a given season of the current year.
- Use graphing calculators and computer spreadsheets to organize and analyze data.
- Test consumer products such as absorbency of the paper towels, devise a scale, and illustrate data graphically.
- Plan a large school event and calculate resources (food, decorations, etc.) needed and costs.

Quadrant B Application

- Make a scale drawing of the classroom.
- Calculate percents of daily requirements met through a typical school lunch.
- Calculate potential combinations of a group of variables, such as wardrobe components, and estimate the probability of any one combination being picked at random.
- Calculate percentages of advertising in a newspaper.
- Play a simulated baseball game and calculate statistics.
- Calculate paint needed for a summer business painting houses.

1

2

3

4

5

SCIENCE

HIGH SCHOOL
EXAMPLES**6****Quadrant C Assimilation**

- Solve a hypothetical science-related problem, such as helping dinosaurs to survive.
- Design experiments and collect evidence to describe the movement of light.
- Design a WebQuest on an aspect of chemistry.
- Design observations to demonstrate basic laws of physics.
- Calculate potential and kinetic energy in the movement of a roller coaster.
- Create a digital electronic counter.
- Write test questions to illustrate understanding of empirical gas laws.
- Research the discovery of a chemical element.

5**4****3****2****1****Quadrant D Adaptation**

- Explore designs of car safety restraints using eggs in model cars.
- Design and construct a robot.
- Conduct debate on genetically modified food (GMF).
- Solve an organic chemistry case study problem in petroleum distillation.
- Select a method to build a tunnel under a real city.
- Discuss the social, ethical, and emotional consequences of genetic testing.
- Participate in an online debate on a science issue, such as acid rain or deformed frogs.
- Research and write a newspaper article on a viral disease, examining economic and societal impacts.

Quadrant A Acquisition

- Conduct laboratory experiments to observe chemical reactions.
- Apply number and computation skills to science, including scientific notation and significant figures.
- Determine latitude and longitude of geographic locations.
- Use a mnemonic system for remembering metric conversions.
- Demonstrate modulation of sound waves using computer animation.
- Conduct experiments to observe properties of acids and bases.
- Memorize elements in Periodic Table.
- Make observations about the visual effects of concave and convex lenses.

Quadrant B Application

- Map a community site by collecting data with GPS device.
- Collect and categorize organisms from a natural stream.
- Apply Laws of Gases to design gas storage containers.
- Make weather forecasts based on data.
- Solve electrical current values using Ohm's law.
- Isolate DNA from unknown plant tissues and compare to sample DNA.
- Participate in an online collaboration to collect scientific data on a global problem.

1**2****3****4****5**

Rigor/Relevance Framework

Worksheet

KNOWLEDGE TAXONOMY

Evaluation 6
 Synthesis 5
 Analysis 4
 Application 3
 Comprehension 2
 Awareness 1

		C - Assimilation		D - Adaptation		
		A - Acquisition		B - Application		

1 2 3 4 5

Knowledge in one discipline Apply in one discipline Apply across discipline Apply to real-world predictable situations Apply to real-world unpredictable situations



APPLICATION MODEL

Test Question Evaluation Worksheet

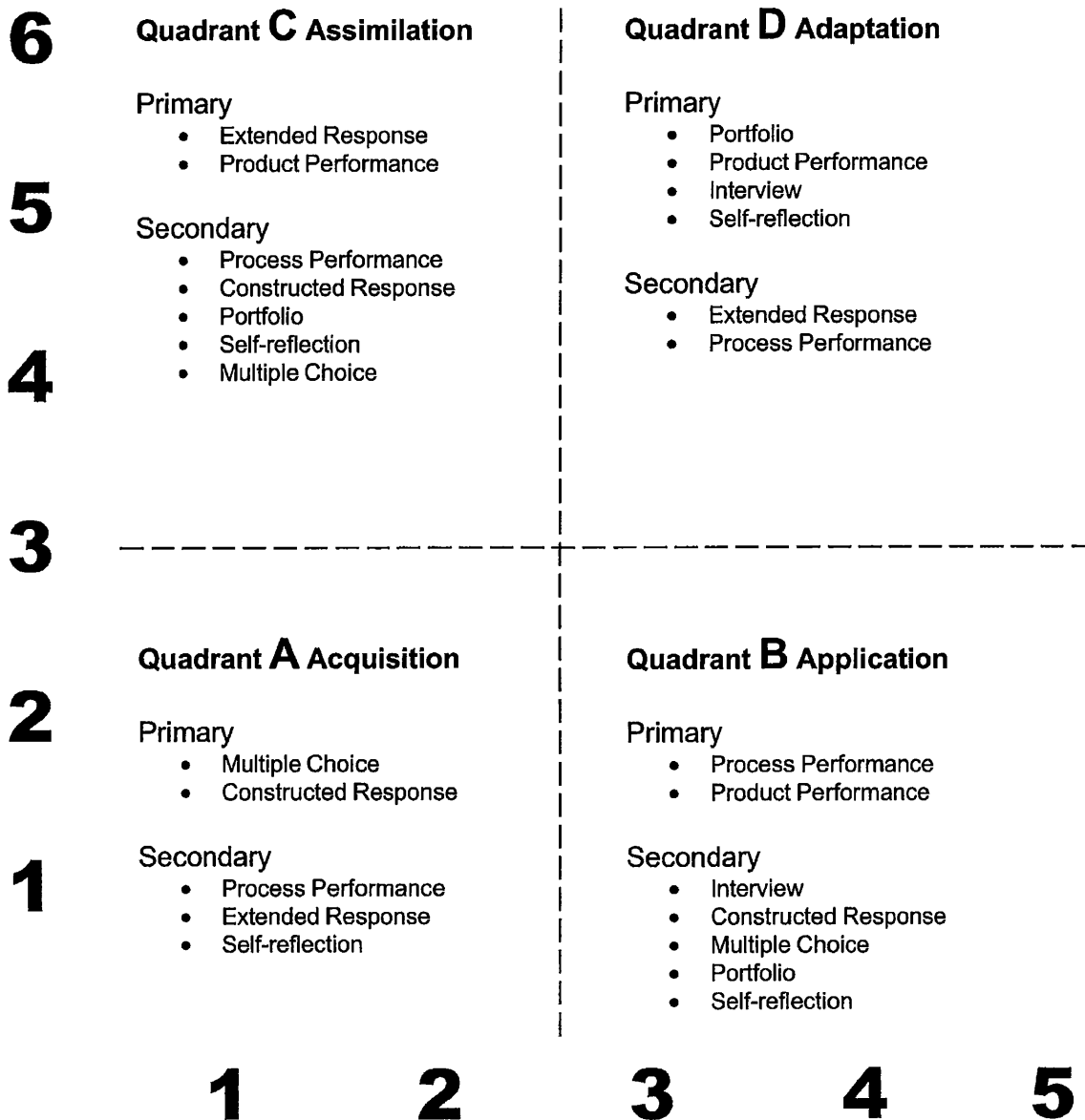
Directions: For each of the following test questions, indicate the appropriate level of Rigor and Relevance (A, B, C, D).

R/R Level

- 1 The phrase "x to the fifth power" is represented by which mathematical expression?
A. x^5 B. 5^x C. $5x$ D. $5 + x$
- 2 The pressure (voltage) of a battery for a bus or truck employing a diesel engine is usually 24V, if you use two 12V batteries how should they be connected to produce the necessary 24 volts?
- 3 The wholesale price of books bought by a book seller increase from \$3.00 to \$3.50. He had been selling the books at \$4.00. What price must he sell the books at to make the same percentage profit.?
- 4 Name the five bases that make up Deoxyribonucleic acid (DNA) and are noted by the letters A,T,G,C.
- 5 Your boss tells you to find the best deal in cellular phone service. Economy service is \$19.95 per month plus 31¢ per minute of airtime. Silver service is \$40.95 per month plus 16¢ per minute. Gold service is \$80.95 per month with unlimited airtime. Define variables. Write equations. Make tables and graphs. Find slopes and points of intersection. For each plan, how much airtime will \$100 buy? For what range of airtime is each plan cheapest?
- 6 After reading Chaucer's "Prologue" to *The Canterbury Tales*. Select two characters you find intriguing from the "Prologue," and create a written dialog between them. Stress both the differences and commonalties so that the dialog reveals two distinct personalities.
- 7 Which of these substances is found in every living cell?
A. protein B. chlorophyll C. cellulose D. starch E. hemoglobin
- 8 Identify one controversial domestic issue that has divided the American people and explain the historical background, points of view of those who supported and opposed this issue and government action that was taken to address this issue.
- 9 What are the five vital signs:
(A) skin color, pulse, blood pressure, temperature, respiration
(B) bleeding, pulse, temperature, location of injury, level of responsiveness
(C) temperature, pulse, blood pressure, respiration, level of responsiveness
(D) location of injury, pulse, blood pressure, respiration, level of responsiveness
- 10 After examining and comprehending the Bill of Rights, rewrite an amendment or create a new one for the 21st century.

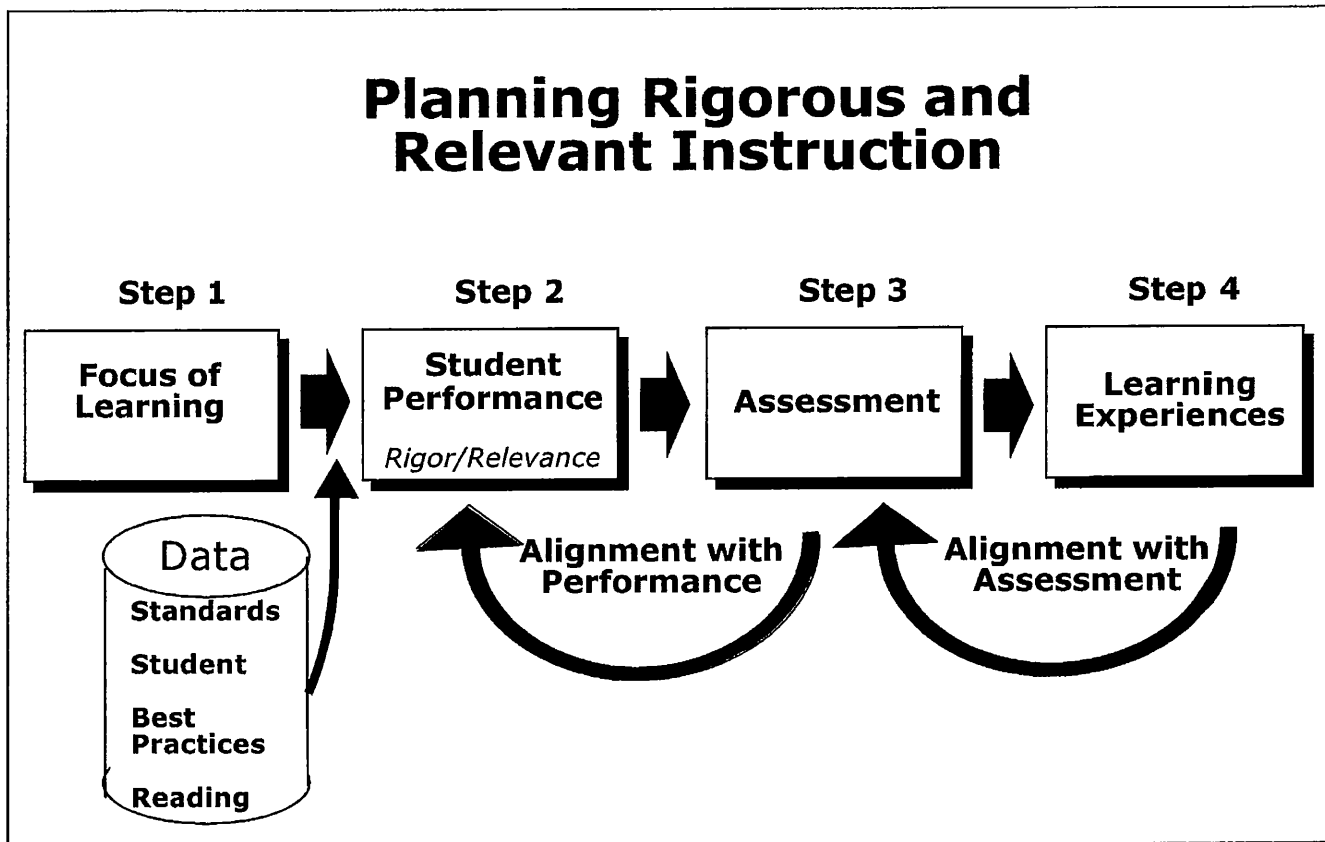
ABBADCACAD

Relationship of Assessments to the Rigor/Relevance Framework



Primary = Best Match

Secondary = Also Appropriate



Questions

Step 1 - Focus - What defines or drives the learning experience?

Step 2 - Student Performance - What are students expected to know, do or be like and at what level of rigor and relevance?

Step 3 - Assessment - How will you assess desired student performance?

Step 4 - Learning Experience - What activities will enable students to achieve student performance?

Examples of Student Work for Real World Instruction

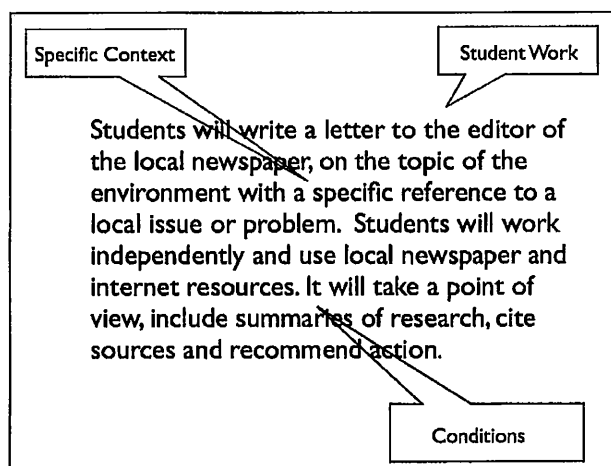
- Advertisement
- Audiotape
- Brochure
- Business
- Chart
- Community service
- Construction
- Contract
- Correspondence
- Debate
- Demonstration
- Design
- Diagram
- Discussion
- Display
- Dramatization
- Drawing
- Editorial
- Exhibit
- Experiment
- Field guide
- Graph
- Interview
- Invention
- Journal
- Letter
- Log
- Machine
- Magazine
- Manufacturing process
- Map
- Memo
- Mnemonic
- Model
- Mural
- News report
- Newspaper
- Oral history
- Oral report
- Painting
- Petition
- Photo album
- Play
- Poster
- Production process
- Proposal
- Questionnaire
- Questions
- Rap
- Relief map
- Research report
- Resume
- Rules
- Scale model
- Scrapbook
- Script
- Sculpture
- Sketch
- Skit
- Slide show
- Software application
- Solution
- Song
- Speech
- Story
- Survey
- Taxonomy
- Teach a lesson
- Test
- Videotape

Writing Performance Tasks

Definition

A performance task is a description of how a student is expected to demonstrate learning (understanding, knowledge and skills). The task may be a product, performance or extended writing that requires rigorous thinking and relevant application. It is usually written in the third person describing the learning to other educators.

Sample



Performance tasks include;

- ◆ student work that will be produced or performed
- ◆ specific learning context
- ◆ whether group or individual
- ◆ resources students will be provided or have to acquire
- ◆ setting where students will complete the work
- ◆ conditions (often real world) under which the work will be done

Performance tasks usually do not include;

- ◆ assessment. A performance-based implies but does not specify how the performance will be assessed.
- ◆ specific direction to the student
- ◆ specific equipment list
- ◆ homework or reading assignments

Examples of High Rigor/High Relevance Performance Tasks

Middle Level Health

Create an advertisement that shares the healthiest fast food choices based on nutrition research that is graphed and detailed on "combo" meals in 4 popular fast food restaurants.

10th grade Biology

Students will create a field guide for identification of tree species on the high school campus in appreciation of Arbor Day. The field guide will also include photographs/detailed drawings, and accurate taxonomy information on natural environments and information on diseases that negatively impact the trees.

10th grade World History

Students will create a children's book explaining the scientific revolution. Students must identify major historical figures and scientific concepts. Students must have illustrations and cite sources and research.

9th Grade English

As a student, you have been asked to serve on a superintendent's committee on school issues. Your friend's Mom wants a book removed from your school's library because of material she finds offensive. Research censorship and write a letter to the superintendent urging him to take a specific action. Be sure to include your reasons and the research to support your position.

Pre-Calculus

Students will present to the class predictions and solutions on a local, state or national issue that involves exponential decay or growth. The student must research issue, collect data and create a model to represent this change.

Interdisciplinary

After reading *State of Fear* by Michael Crichton, the students will participate in a formal debate concerning the validity or non validity of global warming. The research presented in the book as well as research that opposes the point of view of the book will be used in formulating the debate. The debate shall follow the standard format for formal debate.

9th grade Mathematics

Students will design a poster of a circle graph on the topic of "Healthy Snacks in Snack Machines" based a survey of at least 100 students regarding which snacks they prefer. Make recommendations to the principal about which snacks should be put into school machines, using data and graph.

Worksheet Defining Performance Task

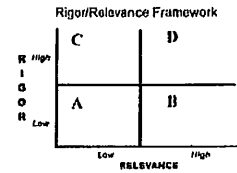
Unit Title _____

Author _____ Date _____

Directions: After brainstorming student learning check any of the following examples of generic student work that possibly could be student work related to the intended learning.

- | | | | | |
|--|--|---|---|---|
| <input type="checkbox"/> Advertisement | <input type="checkbox"/> Drawing | <input type="checkbox"/> Mnemonic | <input type="checkbox"/> Rap | <input type="checkbox"/> Song |
| <input type="checkbox"/> Audiotape | <input type="checkbox"/> Editorial | <input type="checkbox"/> Model | <input type="checkbox"/> Relief map | <input type="checkbox"/> Speech |
| <input type="checkbox"/> Brochure | <input type="checkbox"/> Exhibit | <input type="checkbox"/> Mural | <input type="checkbox"/> Research report | <input type="checkbox"/> Story |
| <input type="checkbox"/> Business | <input type="checkbox"/> Experiment | <input type="checkbox"/> News report | <input type="checkbox"/> Resume | <input type="checkbox"/> Survey |
| <input type="checkbox"/> Chart | <input type="checkbox"/> Field guide | <input type="checkbox"/> Newspaper | <input type="checkbox"/> Rules | <input type="checkbox"/> Taxonomy |
| <input type="checkbox"/> Community service | <input type="checkbox"/> Graph | <input type="checkbox"/> Oral history | <input type="checkbox"/> Scale model | <input type="checkbox"/> Teach a lesson |
| <input type="checkbox"/> Construction | <input type="checkbox"/> Interview | <input type="checkbox"/> Oral report | <input type="checkbox"/> Scrapbook | <input type="checkbox"/> Test |
| <input type="checkbox"/> Contract | <input type="checkbox"/> Invention | <input type="checkbox"/> Painting | <input type="checkbox"/> Script | <input type="checkbox"/> Videotape |
| <input type="checkbox"/> Correspondence | <input type="checkbox"/> Journal | <input type="checkbox"/> Petition | <input type="checkbox"/> Sculpture | <input type="checkbox"/> Website |
| <input type="checkbox"/> Debate | <input type="checkbox"/> Letter | <input type="checkbox"/> Photo album | <input type="checkbox"/> Sketch | |
| <input type="checkbox"/> Demonstration | <input type="checkbox"/> Log | <input type="checkbox"/> Play | <input type="checkbox"/> Skit | |
| <input type="checkbox"/> Design | <input type="checkbox"/> Machine | <input type="checkbox"/> Poster | <input type="checkbox"/> Slide show | |
| <input type="checkbox"/> Diagram | <input type="checkbox"/> Magazine | <input type="checkbox"/> Production process | <input type="checkbox"/> Software application | |
| <input type="checkbox"/> Discussion | <input type="checkbox"/> Manufacturing process | <input type="checkbox"/> Proposal | <input type="checkbox"/> Solution | |
| <input type="checkbox"/> Display | <input type="checkbox"/> Map | <input type="checkbox"/> Questionnaire | | |
| <input type="checkbox"/> Dramatization | <input type="checkbox"/> Memo | <input type="checkbox"/> Questions | | |

*Directions: Now write a student performance task that will be the culmination of the unit. Select the appropriate **student work**, describe the **specific context** that relates the work to the desired learning and list the **conditions** that will make this a high quality learning experience.*



Performance Task



Internet Resources for Lesson Ideas for Teaching for Rigor and Relevance

This list is available in electronic form at <http://dickjones.us/rr/resources.htm>

Interdisciplinary

From Now On <<http://www.fno.org/> integrated>

Jamie MacKenzie's site of technology ideas and links for webquests

Edutopia <<http://www.edutopia.org/php/keyword.php?id=037>>

Great resources and case studies on project based learning

Eduscapes <<http://eduscapes.com/tap/topic43.htm>>

Ideas across content areas and courses for projects, problems and inquiry

Houghton Mifflin <<http://college.hmco.com/education/pbl/index.html>>

Contains lessons for science and social studies that incorporate use of technology and media

Internet 4 Classrooms <<http://www.internet4classrooms.com/project.htm>>

Extensive Resource for online data for student projects and problems

EDC Science Center <<http://cse.edc.org/curriculum/materials.asp>>

Lesson plans for inquiry-based science

Classroom Inc. <http://www.classroominc.org/?page=our_programs&subpage=simulations>

Simulations for student collaboration literacy and math skills through an interdisciplinary

Illinois Math and Science Academy <<http://www2.imsa.edu/programs/pbln/>>

Integrated Math and Science units and project-based learning

InvenTeams <<http://web.mit.edu/inventeams/about.html>>

MIT program and grants to foster inventiveness among high school students.

USA Today <<http://www.usatoday.com/educate/homesplash.htm?POE=FOOTER>>

Extensive activities and lesson plans for real world applications of math, science, language arts and development of career skills.

Thinkquest <<http://thinkquest.org/library/index.html>>

Resources from the student competition to create web-based resources on various topics

ENC <<http://www.goenc.com/>>

Integrated units in math and science from this extensive clearinghouse

Project-based Learning with Multimedia <<http://pblmm.k12.ca.us/>>

Great ideas and step by step instructions for multi-media projects, cross content ideas

TechLearning <http://www.techlearning.com/db_area/archives/TL/2003/01/project7.html>

Summary of project-based lessons

PBL Projects <http://www.wested.org/pblnet/exemplary_projects.html>

Resources for technology infused lessons project-based lessons across content areas

Science

USGS <<http://education.usgs.gov/>>

incredible integrated projects and inquiry lessons in earth science

Science Webquests <<http://www.chemistryteaching.com/scwquest.htm>>

Extensive list of inquiry based science web quests

TeachEngineering <<http://www.TeachEngineering.org>>

Lessons connect real-world experiences with math and science concepts and skills

Project WILD <<http://www.projectwild.org/>>

Environmental learning about our natural world emphasizing conservation of wildlife. .

Practical Uses of Math and Science <<http://pumas.jpl.nasa.gov/>>

Examples of how science and math are used in interesting settings and everyday life.

Project Learning Tree <<http://www.plt.org/>>

Environmental materials in forests, wildlife, and water, planning, waste mgt. and energy.

Forensics in the Classroom <<http://www.courttv.com/forensics%5Fcurriculum/>>

Forensic case studies for high school science classrooms

Nanokids <<http://nanokids.rice.edu>>

Information and activities to understand the nanoscale world and the emerging research.

GLOBE <<http://www.globe.gov>>

Hands-on science projects where students collect, analyze and report and publish data with students around the world.

Explorelearning <<http://www.explorelearning.com/>>

Online inquiry environment that includes interactive simulations where perform experiments

Mathematics

Computing Technology for Math Excellence <http://www.ct4me.net/math_projects.htm >

Links and ideas for math based projects

Geometer's Sketchpad <<http://www.keypress.com/sketchpad>>

Dynamic tool to explore and understand mathematics concepts

Graphing Calculators <<http://education.ti.com>>

Resources for using calculators in a wide variety of math and science activities

NCTM's illuminations <<http://illuminations.nctm.org>>

Online activities linked to their standards, along with lesson plans and other web links.

National Library of Virtual Manipulatives <<http://nlvm.usu.edu/en/nav/vlibrary.html>>

Over 100 interactive simulations developed as a means for accelerating and deepening students' understanding of math.

Tools for Understanding <<http://www2.ups.edu/community/tofu/home.htm>>

Resources to assist mathematics teachers at a variety of skill levels including using journaling to get students thinking in different and creative ways

Social Studies

Buck Institute for Education <<http://www.bie.org/pbl/pblhandbook/index.php>>

Resources and links for project-based learning and problem-based economics and government

National Council for the Social Studies <<http://www.ncss.org/lessons/>>

Lessons in a variety of courses including document based questions

iEARN <<http://www.iearn.org/>>

Collaborative educational projects that both enhance learning and make a difference in the world.

Global School House' CyberFair <<http://www.globalschoolnet.org/gsh/cf/index.html>>

Students around the world are invited to create, submit and share theme-based Websites as classroom projects)

Students of the World <http://www.studentsoftheworld.info/menu_schools.php3>

This site has a variety of school-based blogs from countries around the world. Schools can post blogs here and then interact with schools from other countries.

World Savvy <<http://worldsavvy.org/>>

Professional development services for teachers to help them easily incorporate international issues into classroom instruction.

Peace Corps for Educators <<http://www.peacecorps.gov/wws/educators/>>

Peace Corps lesson plans and projects promote cross-cultural understanding.

Country Reports <<http://www.countryreports.com>>

Great resource for students doing reports with historical and current information most countries.

CultureQuest <<http://www.culturequest.us>>

Involves students and teachers in inquiry-based classroom projects that explore other cultures.

English/Language Arts

Community Learning Network <http://www.cln.org/subject_index.html>

Instructional resources and student project ideas around language arts themes

Internet 4 Classrooms <http://www.internet4classrooms.com/lang_mid.htm>

Technology based language arts resources

Edsitement <<http://edsitement.neh.gov/>>

Teaching resources for the humanities

Literacy and Learning <<http://www.lpb.org/education/classroom/itv/litlearn/>>

Resources for middle level teacher to support reading in other content areas.

National Council of Teachers of English < <http://www.ncte.org/> >

Resources integrating literacy and technology, also integration with other courses.

Read Write Think <<http://www.readwritethink.org/>>

Joint project of NCTE and IRA to provide the highest quality practices and resources in reading and language arts instruction.

Checklist for Rigorous and Relevant Teaching and Learning

The teaching design

- Is planned using data on students and curriculum.
- Is clearly linked to priority state standards.
- Has an expectation for levels of rigor and relevance.
- Uses appropriate assessments aligned with the rigor and relevance of expectations.
- Is clearly guided by big ideas and essential questions.
- Uses strategies that are aligned with the rigor and relevance of expectations.
- Includes the knowledge and skills necessary for expected student performance.
- Uses authentic performance tasks calling for students to demonstrate their understanding and apply knowledge and skills.
- Uses clear evaluation criteria and performance standards evaluations of student products and performances.
- Uses a variety of resources. The textbook is only one resource among many.

The classroom

- Has student work and essential questions as central to classroom activities.
- Has high expectations and incentives for all students to achieve the expected performance.
- Has a culture that treats students and their ideas with dignity and respect.
- Displays evaluation criteria or scoring guides.
- Has samples of high-quality student work on display.

The teacher

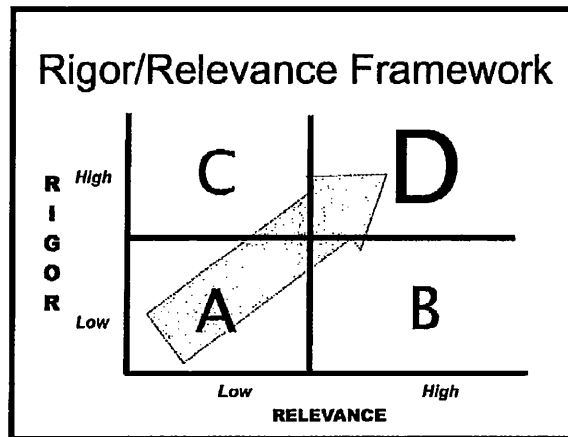
- Informs students of the expected performance, essential questions, performance requirements, and assessment criteria at the beginning of the lesson or unit.
- Engages students' interest when introducing a lesson.
- Uses a variety of strategies that match the expected level of rigor and relevance and learning styles of students.
- Facilitates students' active construction of meaning (rather than simply telling).
- Effectively uses questioning, coaching, and feedback to stimulate student reflection.
- Facilitates student acquisition of basic knowledge and skills necessary for student performance.
- Differentiates instruction to meet individual student needs.
- Adjusts instruction as necessary on reflection and feedback from students.
- Uses information from ongoing assessments to check for student learning and misconceptions along the way.
- Uses a variety of resources to promote understanding.

The students

- Can describe the goals (student performance) of the lesson or unit.
- Can explain what they are doing and why (i.e., how today's work relates to the larger unit or course goals).
- Are engaged throughout the lesson or unit.
- Can describe the criteria by which their work will be evaluated.
- Are engaged in activities that help them to apply what they have learned.
- Demonstrate that they are learning the background knowledge and skills that support the student performance and essential questions.
- Have opportunities to generate relevant questions.
- Are able to explain and justify their work and their answers.
- Use the criteria or scoring guides to revise their work.

Benefits of Using RR Framework

- ◆ Simple, versatile and powerful
- ◆ Something new that builds on what teachers know
- ◆ Inclusive
- ◆ Shift focus to Student Learning
- ◆ Avoids defending current practice
- ◆ Framework for selecting strategies and assessments
- ◆ Agenda for collaboration
- ◆ Natural build



Raising the Level of Rigor and Relevance

There are several ongoing strategies that must be in place to raise the level of rigor and relevance. Those strategies are:

Rubrics –assessments including rubrics, scoring guides and checklist used to measure learning in student performance

Reading – the fundamental skills that is pre-requisite for nearly all learning

Reflective Thought – behavior of students causes them to pause, think, question and reflect as part of learning

Revision - improvement of teaching in learning through experimentation, reflection and sharing best practices

Research – analytical evaluation of innovative practices

Resilience – the students character trait that causes them to try again, struggle to achieve and bounce back from poor performance in the education process

Relationships – the positive connection between students and their peers, parents and teachers that supports them to achieve at high levels

Reschedule – revisions to master schedules of teachers and students to work toward the goal of better meeting student needs

Rejuvenation – teacher professional learning that ignites passion to teaching and energizes teaching with new ideas and strategies

Rewards – recognition and awards provided to students and staff for accomplishing higher levels of achievement