

For further conversation about any of these topics:

Rick Wormeli
rwormeli@cox.net
703-620-2447
Herndon, Virginia, USA
(Eastern Standard Time Zone)

Five Purposes for Homework

- ✓ Practice
- ✓ Interaction
- ✓ Application
- ✓ Extension
- ✓ Preparation

Important:

- Homework is never given to teach students the material the first time. We assign homework only after checking to make sure students already understand the material.
- Homework is never used to demonstrate full mastery. It is formative. We provide ample feedback, but not ultimate evaluation of mastery.

Feedback vs Assessment

Feedback: Holding up a mirror to students, showing them what they did and comparing it what they should have done – There's no evaluative component!

Assessment: Gathering data *so we can make a decision*

Greatest Impact on Student Success:

Formative feedback

Be clear: We grade against standards, not routes students take or techniques teachers use to achieve those standards.

What does this mean we should do with class participation or discussion grades?

Four Inappropriate
Purposes for Homework

- ✗ To appear vigorous and demanding
- ✗ To teach material the first time
- ✗ To keep students busy
- ✗ To assess students' final, summative mastery of a topic

Let "No homework"
be the default response,
not "Yes, there's homework."
***Then we have to fight for the
justification.***

Consider, too, how
personal technology is
changing the way our
students do things.

**We've entered a 24-7
work cycle. Official
homework as we know it
will soon fade.**

Teachers who engage students make sure that students:

- Experience competence regularly.
- Have a positive relationship with at least one adult in the building
- Receive developmentally appropriate instruction
- Sense the teacher's passion for the subjects they teach
- Are enabled and inspired to participate in their own learning

Characteristics of Motivational Classrooms
(Rick Lavoie, *The Motivation Breakthrough*, 2007)

1. Relevance
2. Control
3. Balance of Support and Challenge
4. Social Interaction
5. Safety and Security

Motivational Forces (Needs):

To Belong	To be Acknowledged
To be Independent	To Control
To be Important	To Assert
To Know	

What Works?

Expertise in the age group we teach -- Circle in our lesson plans where we see evidence of our expertise in teaching this age group.

For example, young adolescent expertise includes:

- Structure and clear limits
- Physical activity every single day
- Frequent and meaningful experiences with fine and performing arts
- Opportunities for self-definition
- Safe and inviting emotional atmosphere
- Students experiencing real competence
- Meaningful participation in families, school, and communities
- Basic of students met: food, water, rest, good health, physical presence.

**“Emotion
drives
attention,
attention
drives
learning.”**

— Robert Sylwester, 1995, p. 119, Wolfe

Highly Effective Strategies
for Today’s Students:

- Arguing/Defending Position
- Project-based learning
- Novelty
- Technology incorporation
- Collaboration

Moving Content into Long-term Memory

Students have to do both,

Access → Sense-Making

Process → Meaning-Making

More Concerns and Tips

- **Make sure homework practices what you're teaching.** How does building a diorama or making a coloring book based on scenes from the novel, *Touching Spirit Bear* (Mikaelsen), teach students literary devices, reading, writing, theme, critical analysis, novel structure, or anything else about literacy?
- **Any assignment requiring parent involvement in order to understand and/or complete it is usually inappropriate.** "Example of inadequate student preparation: "Mom, I have to do a report on cells. How do I start?"

More Concerns and Tips

- **During novel studies: Stop the note-taking! Don't commit *Reader Rigormortis!*** -- "How would you like it if you were watching a movie and someone interrupted you every ten minutes and asked you questions about what you were seeing?" (Bennett and Kalish, p. 130)
- **Daily exercise has dramatic impact on the development of the brain's frontal lobe** (Bennett and Kalish, p. 91). This affects decision-making, abstract and moral reasoning, personality, impulsivity control, immediate working memory, insight, and being aware of consequences

More Concerns and Tips

- **Avoid any homework assignment that requires the purchase of any item(s) beyond the standard school supply list**
- **In order to maximize learning, students need 9 – 11 hours of sleep per night regularly. Help parents make sure they get them.**
- **Practice makes permanent**
- **Practice builds automacity**
- **"Homework is like coming home and doing your taxes every night."** (Bennett and Kalish, p. 18)

"The best way to make students hate reading is to make them prove to you that they have read."
-- Jim Deluca, as quoted in Kohn, p. 177

"To design in advance that homework in certain subjects will be assigned on certain days is to sacrifice thoughtful instruction on the altar of predictability."
-- Kohn, p. 166

"If we sat around and deliberately tried to come up with a way to further enlarge the achievement gap, we might just invent homework."
-- Deborah Meier, as quoted in Kohn, p. 126

Two Homework Extremes that Focus Our Thinking

- If a student does none of the homework assignments, yet earns an "A" (top grade) on every formal assessment we give, does he earn anything less than an "A" on his report card?
- If a student does all of the homework well yet bombs every formal assessment, isn't that also a red flag that something is amiss, and we need to take corrective action?

If we do not allow students to re-do work, we deny the growth mindset so vital to student maturation, and we are declaring to the student:

- **This assignment had no legitimate educational value.**
- **It's okay if you don't do this work.**
- **It's okay if you don't learn this content or skill.**

None of these is acceptable to the highly accomplished, professional educator.

“If we don’t count homework heavily, students won’t do it.”

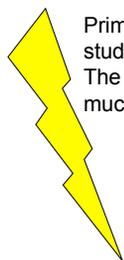
*Do you agree with this?
Does this sentiment cross a line?*

How much should homework count in the overall grade?

- 5% OR LESS, PREFERABLY 0% -

[IF THIS IS A BIG STRETCH, START WITH 10%]

Homework performance is not an accurate portrayal of final proficiency or mastery. It’s what we do in route to mastery. We grade students against standards, not the routes by which they achieve them.



Prime the brain prior to students doing homework. The impact on learning is much greater!

Priming means we show students:

- 1) What they will get out of the experience (the objectives)
- 2) What they will encounter as they go through the experience (itinerary, structure)

Components of Blood Content Matrix

	Red Cells	White Cells	Plasma	Platelets
Purpose				
Amount				
Size & Shape				
Nucleus ?				
Where formed				

The student's rough draft:

Red blood cells carry oxygen and nutrients around the body. They are small and indented in the middle, like little Cheerios. There are 5 million per cc of blood. There is no nucleus in mature red blood cells. They are formed in the bone marrow and spleen.

- Motivating Homework Assignments**
-
- 1. Provide a clear picture of the final product.**
 - 2. Incorporate a cause.**
 - 3. Incorporate cultural products.**
 - 4. Incorporate students and their classmates in the assignment.**
 - 5. Create an audience for the product.**

Motivating Homework assignments

- 6. Allow choices. [Mult. Intellig.]
- 7. Make students collaborators in how homework will be assessed.
- 8. Have everyone turn in a paper, regardless of whether or not they did the assignment.

Motivating Homework Assignments

- 9. Spruce up your prompts. Try better action words:
Decide between, argue against, Why did _____ argue for, compare, contrast, plan, classify, retell _____ from the point of view of _____, organize, build, interview, predict, categorize, simplify, deduce, formulate, blend, suppose, invent, imagine, devise, compose, combine, rank, recommend, defend, and choose.

Motivating Homework Assignments

- 10. Do not give homework passes. Try Homework Deadline Extension Certificates instead.
- 11. Avoid extra credit assignments.
- 12. Integrate homework with other subjects.

Motivating Homework Assignments

- 13. Do not give homework on weekends or holidays.**
- 14. Occasionally, let students identify what would be most effective.**
- 15. Five are as good as 15, 10 as good as 30. 1-page can demonstrate mastery more often than 3 pages.**

Motivating Homework Assignments

- 16. Return papers in a timely manner.**
- 17. Break up routine homework with not-so-routine homework.**
- 18. Increase complexity. No “fluff” assignments.**

It's interesting to note:

As complexity of assessments go up, so does their completion rate. Complexity usually involves more meaningful work, making connections, recoding content for personal relevance, and applying knowledge as students do something meaningful or useful.

CONSTRUCTIVISM	
Traditional Learning	Constructivist Learning
<ul style="list-style-type: none"> • Part to whole, emphasize skills • Strict adherence to curriculum • Rely on textbooks, workbooks • Students are "blank slates" • Teachers disseminate info • Teachers seek correct answer to validate learning • Assessment/Teaching separate 	<ul style="list-style-type: none"> • Whole to part, emph. concepts • Pursue student questions • Rely on prim. sources, manip. • Students are thinkers • Teachers mediate, interact • Teachers seek students' knowledge to make decisions • Assessment/Teaching are interwoven

- To Increase (or Decrease) a Task's Complexity,
Add (or Remove) these Attributes:
- Manipulate information, not just echo it
 - Extend the concept to other areas
 - Integrate more than one subject or skill
 - Increase the number of variables that must be considered; incorporate more facets
 - Demonstrate higher level thinking, i.e. Bloom's Taxonomy, William's Taxonomy
 - Use or apply content/skills in situations not yet experienced
 - Make choices among several substantive ones
 - Work with advanced resources
 - Add an unexpected element to the process or product
 - Work independently
 - Reframe a topic under a new theme
 - Share the backstory to a concept – how it was developed
 - Identify misconceptions within something

- To Increase (or Decrease) a Task's Complexity,
Add (or Remove) these Attributes:
- Identify the bias or prejudice in something
 - Negotiate the evaluative criteria
 - Deal with ambiguity and multiple meanings or steps
 - Use more authentic applications to the real world
 - Analyze the action or object
 - Argue against something taken for granted or commonly accepted
 - Synthesize (bring together) two or more unrelated concepts or objects to create something new
 - Critique something against a set of standards
 - Work with the ethical side of the subject
 - Work in with more abstract concepts and models
 - Respond to more open-ended situations
 - Increase their automacity with the topic
 - Identify big picture patterns or connections
 - Defend their work

Motivating Homework Assignments

- 19. Journalistic versus encyclopedic**
- 20. Require students to change their interaction with the way they received the information. Ex: If they read it, they draw a response.**

Sample Interesting assignments

- Identify the mistake in other's students' approaches to the problem.**
- Rank these items in order of importance to Andrew Johnson.**
- Write a Constitution of the your underwater city that reflects the politics of ancient Rome.**
- Create 12 intelligent questions to which the answer is "Ironic" or "Irony."**

More Interesting assignments

- Create a six-panel comic strip that portrays the event or process.**
- Argue against the decision.**
- Create a PSA for third graders that persuades them to make good snack choices after school.**
- Describe five ways this painting expresses the theme, "Passage."**

Research on
homework's impact

Setting purpose for assignments has huge impact on completion rate and its impact on learning.

As we increase the number of practices, competence grows, but leaps in competence decrease.

When it's early in the learning, choose to do 2 or 3 examples in depth instead of 30 quickly done.

Recommended Homework Amounts per
Night for High School

50 to 120 minutes,

for all subjects put together

General approach for the number of minutes of homework each night:

Add a zero to the grade level

Providing feedback on homework

- **Assignments with multiple entries: check/zero most pages, grade one on which students place a star**
- **Small group consensus on answers, raise unresolved problems to the teacher**
- **Feedback doesn't have to come from you, the teacher**
- **Separate effort from achievement**
- **Make sure there's feedback**

Feedback on Homework:
Effect Size on Learning

(1.0 is maximum positive Effect, 0.25 and below is educationally insignificant)

.28, if there's no feedback

.78, if classmates or self provides feedback

.83, if teacher provides feedback

Great Vocabulary
Homework Assignments

Shape spellings

Restaurant Menu

Wanted Dead or Alive Posters

Taboo Cards

Vocabulary Rummy Cards

Competitive Conversation using
vocabulary

Great Writing
Homework Assignments

Descriptive Paragraph with no adjectives

“Show, Don’t Tell” samples

One-Word Summaries

Proving historical fiction’s authenticity

R.A.F.T. S.— Role, Audience, Format, Topic (Time), Strong
Adverb or Verb

Inventing a new language (beyond just an alphabet
code)

Great Math Homework Assignments

- Analyze how four different students completed the same math problem.
- Write about a math discovery that changed the world.
- Draft a proposal to the city council for a bridge structure for a river, explaining why it is the sturdiest and most cost-efficient option.
- Present a report on the geometry of a basketball court.
- Design a lunar colony made only of three-dimensional solids, schematic designs included.
- Summary of interest earned on a savings account in which the interest rate changed twice.
- An autobiography of a right angle.
- Create a physical demonstration or expression of an abstract math concept.

Great Social studies/history Homework Assignments

- A conversation between two famous people
- 'how a piece of literature changed an era
- An analysis of a political cartoon (or create one)
- A comic strip that retells a famous incident
- A response to the question, "If someone from the time period we're studying were around today, what would he say about modern world issues?"
- A pledge/anthem/flag/constitution for a historical movement
- A movie poster with eye-catching graphics, titles, sound-bite reviews from movie critics, and a list of the cast and crew responsible for the film about _____ (fill in the vocabulary term, such as "democracy")

Great Science Homework Assignments

- Write the life story of a _____
- Create a science calendar in which the picture for each month conveys _____
- Observe _____ for a period of ___ days and determine two hypotheses about it that would make for good investigations
- Examine a common science misconception and how it is perpetuated
- Explain why another student obtained certain lab results
- Create a board game focusing on the basic steps of (insert science cycle or principle)
- Collect and categorize your collection of _____

Great Art Homework Assignments

- Write autobiographies to go with portraits
- Sculpt with clay while using writing process terms
- Answer the question: "If a picture/sculpture could talk, what would it say?"
- Develop synthesis writings: "What does blue sound like?"
"Describe red through other senses and experiences not associated with what we can see."
- Explain what a piece of art tells us about a particular time period
- Explain how four different art concepts are expressed in a gymnasium

Great Physical Education Homework Assignments

- Design and maintain a personal daily exercise regimen for two weeks.
- Design a Web site or library display that promotes at least four successful ways to get into good physical shape.
- Explain the impact of exercise on metabolism, muscle health, and academic learning in a way that's appropriate for students four years younger than you.
- Identify one life-important decision you have to make and hold it up to each of the criteria for successful decision-making.
- Determine the target heart rate for people with the following characteristics: _____

Great Thinking Homework Assignments

- Translate the passage from French to English.
- What's the difference between osmosis and diffusion?
- Classify the items according to their origin.
- Explain how any whole number with an exponent of zero equals one.
- Which part/word doesn't fit?
- Which comments support the President's position?
- Predict what would happen if we changed the temperature in the terrarium.
- Determine the surface area of the building.
- Explain how music changed the tone of the film.

Great Thinking Homework Assignments

- Which comment seems politically motivated?
- Defend the character's decision to _____.
- What's the logical fallacy in his argument?
- Add _____ to the scene in the novel. How would it change?
- Design a better inventory system.
- Which persuasive essay is most convincing and why?
- According to the standards set forth by the Treaty, is the country in compliance? Explain.
- Which algorithm is the most efficient and why?
- Improve upon the idea in at least one way.

Bennett, Sara, Kalish, Nancy; *The Case Against Homework: How Homework is Hurting our Children and What We Can Do About It*, Crown Publishers, 2006

Connors, Neila. *Homework: A New Direction*, National Middle School Association, 1999

Cooper, Harris. *The Battle Over Homework, Second Edition*, Corwin Press, Inc., 2001

Kohn, Alfie. *The Homework Myth: Why Our Kids Get Too Much of a Bad Thing*, Da Capo Press, 2006

Marzano, Robert, et al. *Classroom Instruction That Works*, Association for Supervision and Curriculum Development, 2001

Vatterott, Cathy. *Re-Thinking Homework: Best Practices That Support Diverse Needs*, ASCD, 2009

Wormeli, Rick. *Day One and Beyond: Practical Matters for New Middle Level Teachers*, Stenhouse Publishers, 2003

Wormeli, Rick. *Fair Isn't Always Equal: Assessment and Grading in the Differentiated Classroom*, Stenhouse Publishers, 2006

Two more resources to help you consider your approach:

English Journal (NCTE) November 2008, Volume 98, No. 2 "Does Homework Help?" --- This is a whole journal dedicated to homework! It's great!

Homework Done Right: Powerful Learning in Real-life Situations, Corwin Press, 2010 Written by Janet Alleman, Barbara Knighton, Ben Botwinski, Jere Brophy, Roby Ley, Sarah Middlestead
