

Conceptual Teaching and Learning

**PRISM New Teacher
Symposium**



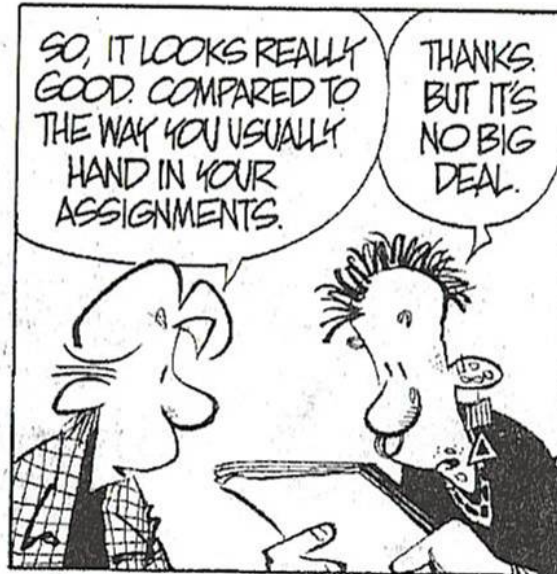
What's Different about GPS?

- Student learning is the focus.
- Learning Goals are the same for all students.
- Standards are integrated and should not be taught in isolation.
- Assessments are used to guide and modify instruction.
- Planning is structured in units.
- The effectiveness of instruction is judged by whether students meet the standard.

Not Repackaging an Old Product!



ZITS



by Jerry Scott and Jim Borgman



What does this cartoon illustrate about perspectives of assessment?

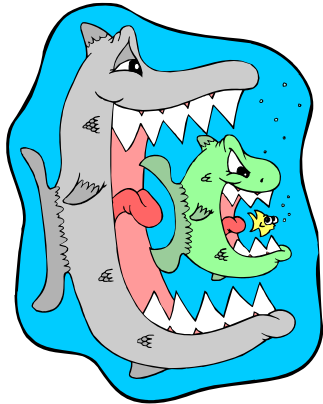
VIPs—Very Important Points

- All teachers must be familiar with the standards.
- Standards are revisited continuously throughout the teaching/learning process.
- Planning takes place at the unit level, and units are usually 3 to 6 weeks in length.
- Established coding procedures for unit/lesson plans need to be rethought.

Standards-Based Education

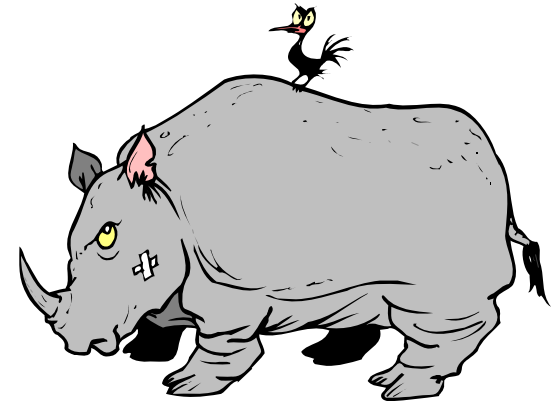
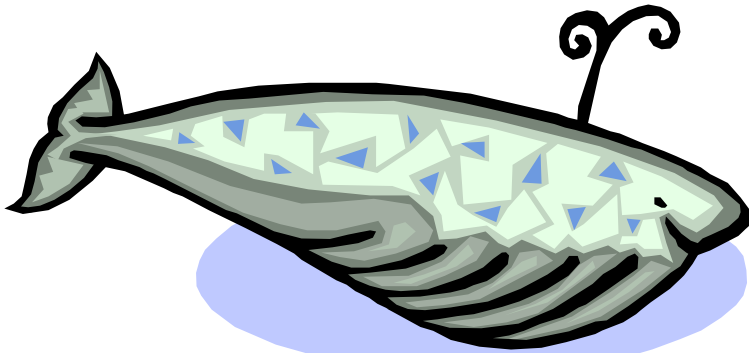
1. Identify Desired Results
(Learning Goals)
2. Develop an Assessment Plan
(Evidence of Learning)
3. Make Instructional Decisions
(Planned Learning Opportunities)

What is a relationship?



Mutualism?
Parasite/Host?
Competition?

Commensalism?
Predator/Prey?



Sample Task

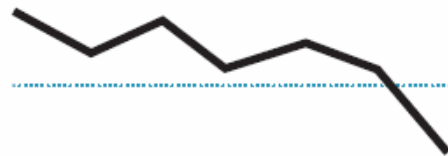
You are a curator at an animal park. Your new project is to design a display depicting a major biome that includes how the organisms relate to and interact with each other.

Your display will include

1. A research narrative with facts about a minimum of ten organisms and their energy needs
2. A food web of including all organisms from the narrative including arrows showing sequence of the transfer of food energy (See next slide)
3. Examples of and explanations of sample symbiotic relationships including mutualism, commensalism, and parasitism

Assessment vs. Grading

Packing a Parachute



Student 1



Student 2



Student 3

Student 1 receives mostly As and high Bs in the beginning; but his/her performance drops off considerably, and s/he receives an F on the final performance test.

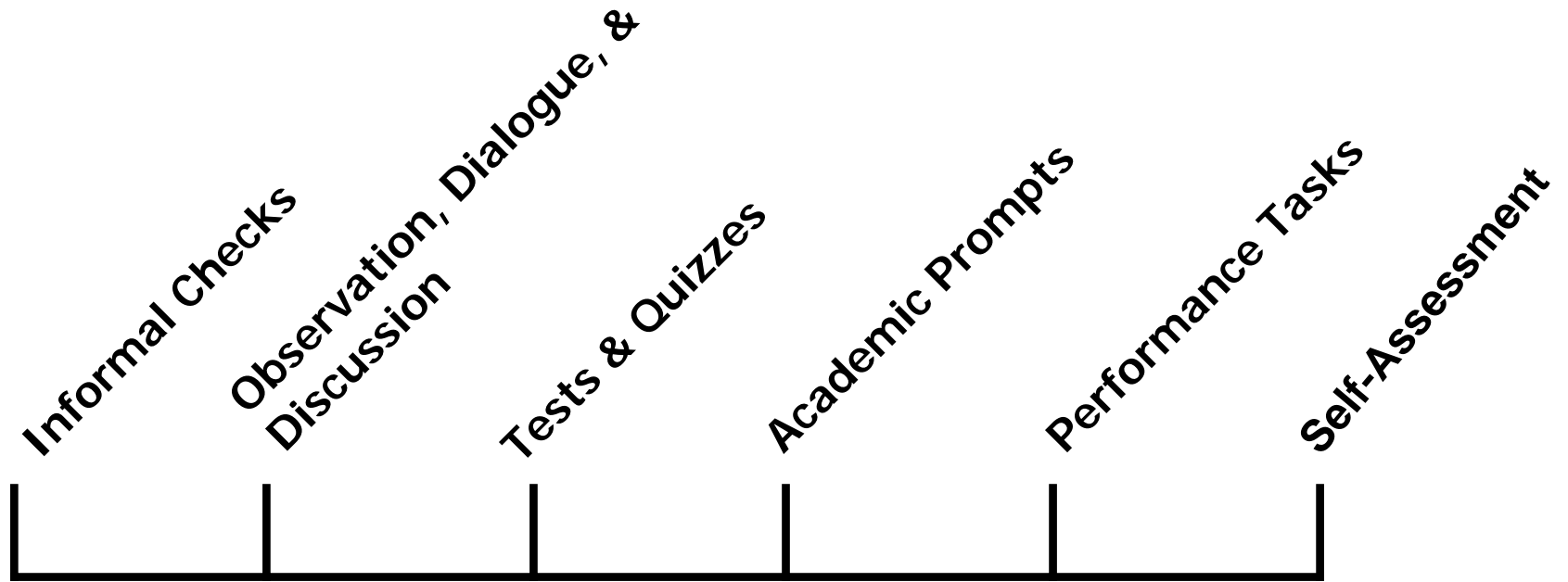
Student 2 is erratic, receiving an equal number of As and Fs.

Student 3 is clueless at the beginning, but by the last few sessions, s/he catches on and performs flawlessly on the final performance. His/her grades are, in order from the first test to the last, F, F, F, F, F, C, B, A.

Assessment for Learning

- Not all students learn at the same rate or in the same way.
- Assessment is ongoing and continuous.
- Assessment guides instruction.
- Assessment provides evidence of student growth toward the learning goals.

Determine an Assessment Plan

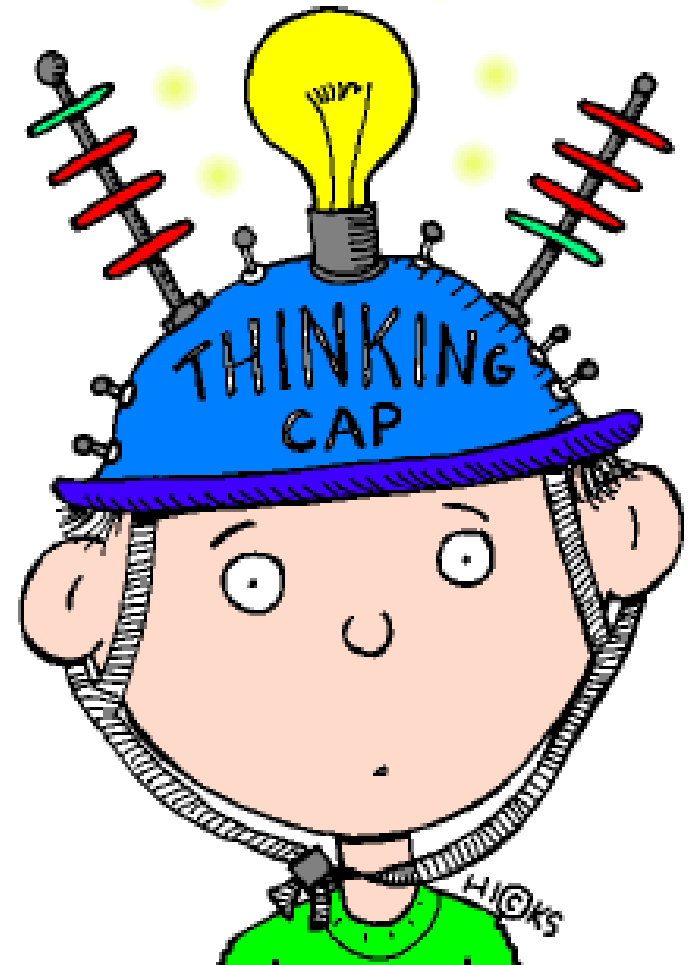


adapted from *Understanding by Design*

Assessment

“Not everything that can be counted counts, and not everything that counts can be counted.”

--Albert Einstein



Research Suggests . . .

- According to Rick Stiggins, a balanced range of classroom assessments is effective in improving student achievement, not only in individual classrooms, but also on state or other standardized tests that provide program evaluation data.
- In fact, Stiggins refers directly to a research review by Paul Black and Dylan William that reports effect sizes on high stakes tests of one-half to a full standard deviation for students who experienced “improved formative assessment” in their classrooms.
- This gain is sufficient to improve student achievement on standardized tests by “more than 30 percentile points, two grade-equivalents, or 100 points on the SAT scale” (Stiggins 2002).

Teaching for Understanding

- In order to provide evidence of understanding, students must be able to apply acquired knowledge and skills to new situations.
- Culminating performance tasks allow students to provide evidence of understanding.

Performance Tasks . . .

- . . . generally occur over time**
- . . . result in tangible products or observable performances**
- . . . involve meaning-making**
- . . . encourage self-evaluation and revision**
- . . . require judgment to score**
- . . . reveal degrees of proficiency based on criteria established
and made public prior to the performance**
- . . . sometimes involve students working with others**

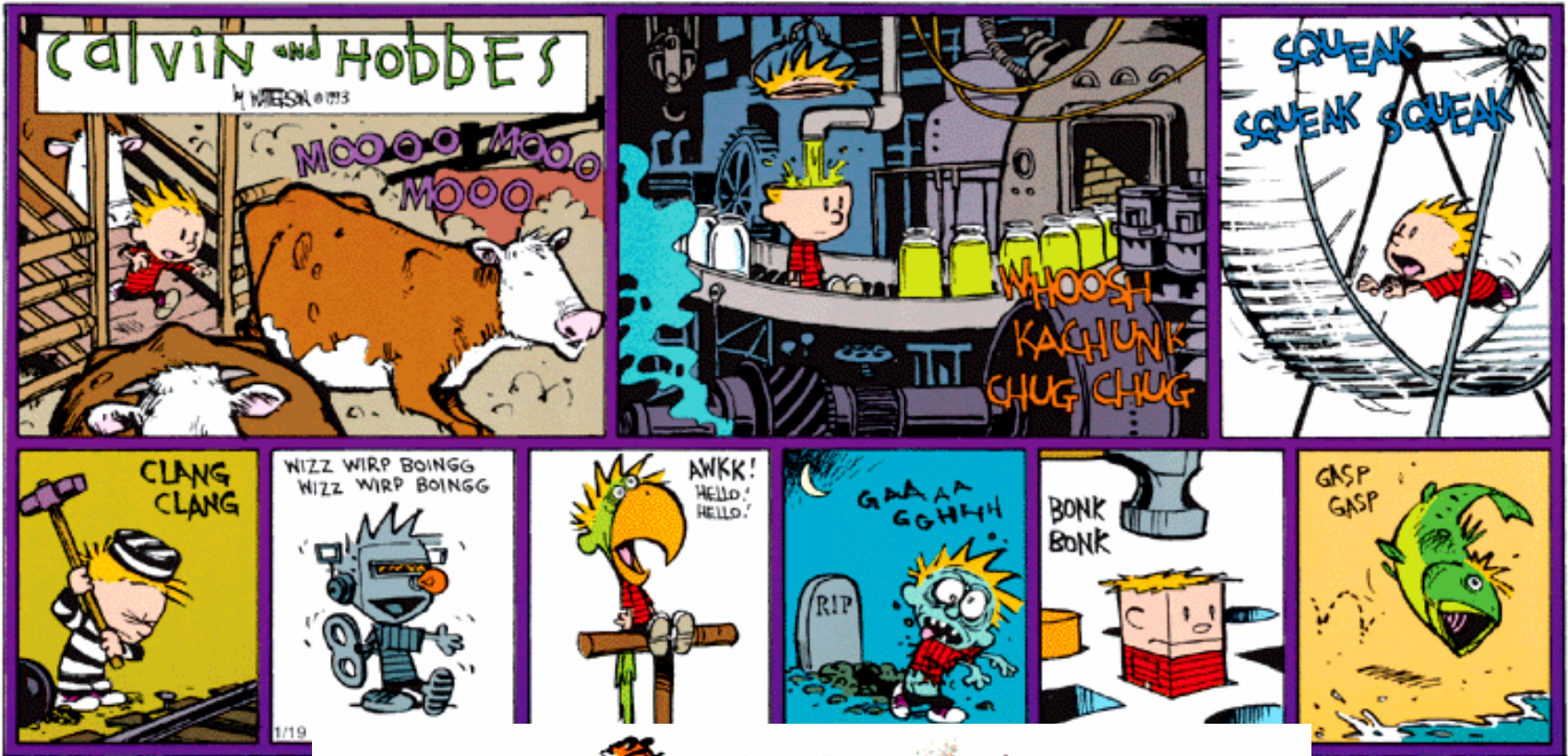
VIPs—Very Important Points

- Assessment and grading are not the same thing.
- Students should be assessed on nearly everything they do, but it's generally unwise to over-grade or to assign grades before the learning process is complete.
- Students do not all learn at the same rate or achieve the learning goals at the same time.
- Averaging to determine final grades does not provide an adequate picture of student growth.
- Students who learn conceptually perform significantly better on standardized tests.

Making Instructional Decisions

- Differentiated instruction is the norm when teaching with performance standards.
- A differentiated classroom is “big on standards,” but “short on standardization.”

(Tomlinson, *The Differentiated Classroom*, 29)



BOY, AM I GLAD
TO SEE YOU,
HOBBS!



ANOTHER TYPICAL
SCHOOL DAY?

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The Road to Student Success



Although the destination remains constant, the routes we take to reach that destination and the time it takes us to get there may vary.

According to Grant Wiggins:

"Good planning leaves room for the unplannable. You do not know what you'll be doing on April 11, and you're a fool if you think so. If you do, then the curriculum is more important to you than your students."

(Grant Wiggins, "Designing and Using Student Reflections and Self-Assessment," ASCD Summer Conference on Differentiated Instruction and Understanding by Design, June 2005)

Making Instructional Decisions

1. Schedule planned assessments on unit calendar.
2. Determine the instruction necessary to equip students to provide evidence of learning on scheduled assessments.
3. Select the most appropriate instructional strategies for providing students access to learning.
4. Schedule instructional activities on unit calendar.

What happens in a standards-based classroom?

- Are learning goals clear to both the teacher and the students?
- Are students actively engaged in their own learning?
- Are the readiness levels, interests, and learning styles of the students being addressed?
- Is assessment for learning guiding instruction to ensure growth for every student?

VIPs—Very Important Points

- All instructional and assessment activities should be designed to move students toward the learning goals—the GPS.
- Students need multiple opportunities to learn using a variety of instructional strategies that incorporate a number of different modalities.
- Instruction should focus on growth for all students. Often the students who come into a classroom knowing the most, learn the least.
- Unit plans must be flexible in order to allow assessment to guide instruction.

More VIPs—Very Important Points

- Unit plans must be flexible in order to allow assessment to guide instruction.
- In standards-based classrooms, teachers create student-centered learning environments.
- In student-centered learning environments, instruction takes place when students work independently, in pairs or small groups, one-on-one with the teacher, and in the class as a whole.



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