Every student deserves a great teacher, not by chance, but by design.

Fisher, Frey, and Hattie, 2016, p. 2

Visible learning combines, rather than contrasts, teacher-centered teaching and student-centered learning and knowing.

Hattie, 2008, p. 26

What highly effective teachers do... | Such that students...
---|---
Communicate clear learning intentions | Understand the learning intentions
Have challenging success criteria | Are challenged by success criteria
Teach a range of learning strategies | Develop a range of learning strategies
Know when students are not progressing | Know when they are not progressing
Provide feedback | Seek feedback
Visibly learn themselves | Visibly teach themselves

Visible learners are assessment-capable learners.

Assessment capable learners say...

“I know where I’m going.”

John Hattie

p. 108
Assessment capable learners say...
“I have the tools I need.”

Assessment capable learners say...
“I gauge my progress.”

Assessment capable learners say...
“I recognize what’s next.”

Visible learners are built by assessment-capable teachers.

MIND FRAMES OF GREAT TEACHERS
- I am an evaluator.
- I am a change agent.
- I talk about learning, not about teaching.
- I see assessment as feedback to me.
- I engage in dialogue, not monologue.
- I enjoy challenge.
- I engage in positive relationships.
- I collaborate.
**Today’s Learning Intentions**

**CP:** Extend and deepen your understanding about ways to utilize high-impact instruction and leadership during each phase of learning.

**LP:** Read, write, discuss and collaborate with colleagues to leverage today’s information at your site.

---

**Today’s Success Criteria**

*By the end of the session, you will be able to:*

- Align and utilize high-impact approaches to phases of learning.

---

**Visible Learning**

- 195 influences.
- 300 million students.

John Hattie
Effect size measures the magnitude of a factor.
Now let’s DOUBLE the speed of learning.

An effect size tells us how powerful something is in creating change.

Now, let’s TRIPLE the speed of learning.

This is the hinge point—a year’s worth of growth for a year in school.

Chance

Design
Student mobility is the secondhand smoke of schooling.

Russell Rumberger, Director of the California Dropout Research Project

1 in 10 School-age children nationwide who move within the same state each year.

Education Week, June 7, 2017
Retention: $d = -0.13$

Response to Intervention: $d = 1.07$

Ability Grouping/Tracking: $d = 0.12$

Small-Group Learning: $d = 0.49$

Teaching Test-Taking: $d = 0.27$

Study Skills: $d = 0.63$
Homework*: $d = 0.29$

Homework at High School*: $d = 0.55$

Teacher-Student Relationships: $d = 0.72$

Teacher Clarity: $d = 0.75$
CLARITY

- Teachers know what students need to learn
- Teachers communicate learning intentions to students
- Teachers and students understand success criteria

LEARNING INTENTIONS AND SUCCESS CRITERIA

Learning intentions are communicated by establishing purpose.

Success criteria shine a light on the learning path.
I Can Statements

Use a single-point rubric to promote visible learning.

### GA Milestones 5th Grade Writing Rubric: Trait 1

<table>
<thead>
<tr>
<th>Areas that Need Work</th>
<th>Success Criteria</th>
<th>Evidence of Exceeding Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Topic introduced effectively</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Related ideas grouped together to give some organization</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Topic developed with multiple facts, definitions, details</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Linking words and phrases connect ideas within a category of information</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strong concluding statement or section</td>
<td></td>
</tr>
</tbody>
</table>

### GA Milestones 5th Grade Writing Rubric: Trait 2

<table>
<thead>
<tr>
<th>Areas that Need Work</th>
<th>Success Criteria</th>
<th>Evidence of Exceeding Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sentences have clear and complete structure, with appropriate range and variety</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Knowledge of writing language and conventions shown</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Any errors in usage do not interfere with meaning</td>
<td></td>
</tr>
</tbody>
</table>

### Teaching Success Criteria

**Negotiation:**

“What would you expect to see in a successful piece of work?”

**Exemplars:**

“How of these two pieces of work best meets the criteria?”

Gordon Stobart
Teaching Success Criteria

**Modeling:**
"Here's what I mean..."

Students recognize their own learning.

Comparative Essays Self-Assessment

| Students compare performance from two points in the year. |

Handout

High Level of Challenge: $d = 0.58$

School is a place were young people go to watch older people work."
Collective Teacher Efficacy

Beliefs of a teacher group about their collective ability to promote student success in their school.

Effect size of 1.57 (Hattie, 2015)
Nearly 4 years of growth for a year in school

CHECK IN
Meet with your 4:00 partner
What ideas are squaring with you?

What ideas are still circulating in your head?

What would you like to learn more about?

Phases of Learning

The right approach at the right time.

We use SURFACE LEARNING to introduce skills and knowledge.
We use **DEEP LEARNING** to consolidate skills and knowledge.

Comparison of assignments and artifacts of teachers who successfully earned National Board Certification, with those who applied but did not earn certification:

- **74%** of the work samples of NBC teachers’ work focused on deep learning tasks.
- Only **29%** of the work samples submitted by non-NBC teachers focused on deep learning tasks.

Smith, Vavie & Bond, 2008

Use the handout on the characteristics of surface and deep learners.

- In what ways are they different?
- What are your hunches about aligning strategies to phases of learning?
- What might be some of the signals learners are exhibiting in these phases?

We use **TRANSFER LEARNING** to focus on self-regulation so they can **accelerate** their learning.

Deep consolidation through connections, relationships, and schema to organize skills and concepts

Skill and Concept Development

Self-regulation to continue learning skills and content independent of the teacher

Connections, relationships, and schema to organize skills and concepts

Skill and Concept Development
Deep learning approaches don't work any better at developing surface learning than surface learning strategies work to develop deep understanding.

The right approach, at the right time, for the right type of learning.

Meet with your 12:00 partner

Use the handout on the characteristics of surface and deep learners.

- In what ways are they different?
- What are your hunches about aligning strategies to phases of learning?
- What might be some of the signals learners are exhibiting in these phases?

SURFACE LEARNING:
Acquire and Consolidate
Chapter 2
Anticipation Guides are a great way to leverage prior knowledge and surface misconceptions.

Ways to Facilitate ACQUISITION of SURFACE Learning

- Wide reading on the topic under study \( (d=0.42) \)
- Vocabulary techniques (sorts, word cards, mnemonics, etc.) \( (d=0.67) \)

Reading Volume Still Matters

STUDENT A

- 20 MINUTES PER DAY
- 1,800,000 WORDS PER YEAR
- SCORES IN THE 90TH PERCENTILE ON STANDARDIZED TESTS

STUDENT B

- 5 MINUTES PER DAY
- 282,000 WORDS PER YEAR
- SCORES IN THE 50TH PERCENTILE ON STANDARDIZED TESTS

STUDENT C

- 1 MINUTE PER DAY
- 8,000 WORDS PER YEAR
- SCORES IN THE 10TH PERCENTILE ON STANDARDIZED TESTS
Incidental Learning Through Wide Reading

2,250 words learned per year this way.
A bargain, considering only 300-500 words can be directly taught each year.

(Mason, Stahl, Au, & Herman, 2003)

Question: Who has better comprehension: students with higher reading test scores, or students with higher relevant knowledge?

Answer: Who has better comprehension?

Knowledge Matters

In an iconic study, replicated numerous times, poor readers with more knowledge outperformed stronger readers with less knowledge. In fact, they performed almost as well as the students who were both knowledgeable and strong readers.


Paired Fluency Protocol

Promotes surface level acquisition and consolidation through:

- Fluency
- Rehearsal
- Summarizing

Meet with your 8:00 partner

Paired Fluency Protocol

Partner A and Partner B discuss everything you recall so far today:

- Three rounds
- Partners cannot repeat information shared by the other
Without more complex tasks, students will not deepen their learning.

Task complexity should align with the phase of learning.

RIGOR IS FOR EVERYONE!

Difficulty vs. Complexity

Difficulty
- A measure of effort required to complete a task
- In assessment, a function of how many people can complete the task correctly.

Complexity
- A measure of the thinking, action, or knowledge that is needed to complete the task.
- In assessment, how many different ways can the task be accomplished.

Ways to Facilitate DEEP Learning
- Close reading ($d = 0.63$)
- Discussion and questioning ($d = 0.82$)
- Metacognitive strategies ($d = 0.69$)

Difficulty vs. Complexity Diagram:

- More Complex
  - Strategic Thinking
    - Low Difficulty, Low Complexity
    - High Difficulty, High Complexity
  - Struggle
    - Easy
      - Low Difficulty, Low Complexity
    - Hard
      - High Difficulty, Low Complexity
  - Stamina
    - Fluency
      - Less Complex
      - More Complex
Future professional learning at your site?
Ask grade levels to plot tasks assigned for the last 30 days.

This is NOT how transfer of information happens

See p. 31 for another self-assessment example.

Ways to Facilitate TRANSFER

- Reading across documents to conceptually organize (d = 0.65)
- Formal discussion, including debates and Socratic seminars (d = 0.82)
- Problem-solving teaching (d = 0.61)
- Extended writing (d = 0.43)

Problem-Based Learning (0.61)

- Also called problem solving teaching
- Can be driven by an essential question (What’s worth fighting for? Are insects useful?)
- Drives investigation
Problem-based Learning: $d = 0.15^*$

**Design**

Never hold an instructional strategy in higher esteem than your students’ learning.

Fisher, Frey, and Haeger, 2016

**7 Essentials for PBL**

1. A need to know.
2. A driving question.
3. Student voice and choice.
4. 21st century skills.
5. Inquiry and innovation.
6. Feedback and revision.
7. A publicly presented project

Larmer & Mergendoller, 2010

Visible Learning in Literacy Anticipation Guide

Let’s revisit the anticipation guide you completed this morning. Talk with your table partners about the items. Be sure to add your reasoning.
Visible Learning in Literacy Anticipation Guide

1. Effect sizes report the significance of an instructional strategy.

*FALSE*—it reports on the *impact* of the instructional strategy.

Visible Learning in Literacy Anticipation Guide

2. The deep phase of learning is the best time for vocabulary instruction to occur.

*FALSE*—the *surface phase of learning* is the best time for vocabulary instruction to occur.

Visible Learning in Literacy Anticipation Guide

3. Surface learning is less important than deep learning because it is superficial.

*FALSE*—the *surface phase of learning* is crucial because it sets the stage for deep learning to follow. It’s just not sufficient.

Visible Learning in Literacy Anticipation Guide

4. The number of years of teaching is the best predictor of teacher expertise.

*Qualified FALSE*—Only for the first 5 years. After that, the best predictor of expertise is the amount of time dedicated to deep and transfer phases of learning.

Visible Learning in Literacy Anticipation Guide

5. Problem-based learning (problem-solving teaching) is effective for transfer, but not for surface learning.

*TRUE*—At the *surface phase of learning*, it’s effect size is only 0.15. At the *transfer phase of learning*, it is 0.61.

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How will you be a hero tomorrow?

FOLLOW ME on Twitter @NancyFrey
CONTACT ME at www.fisherandfrey.com

THANK YOU