Effective Instructional Strategies

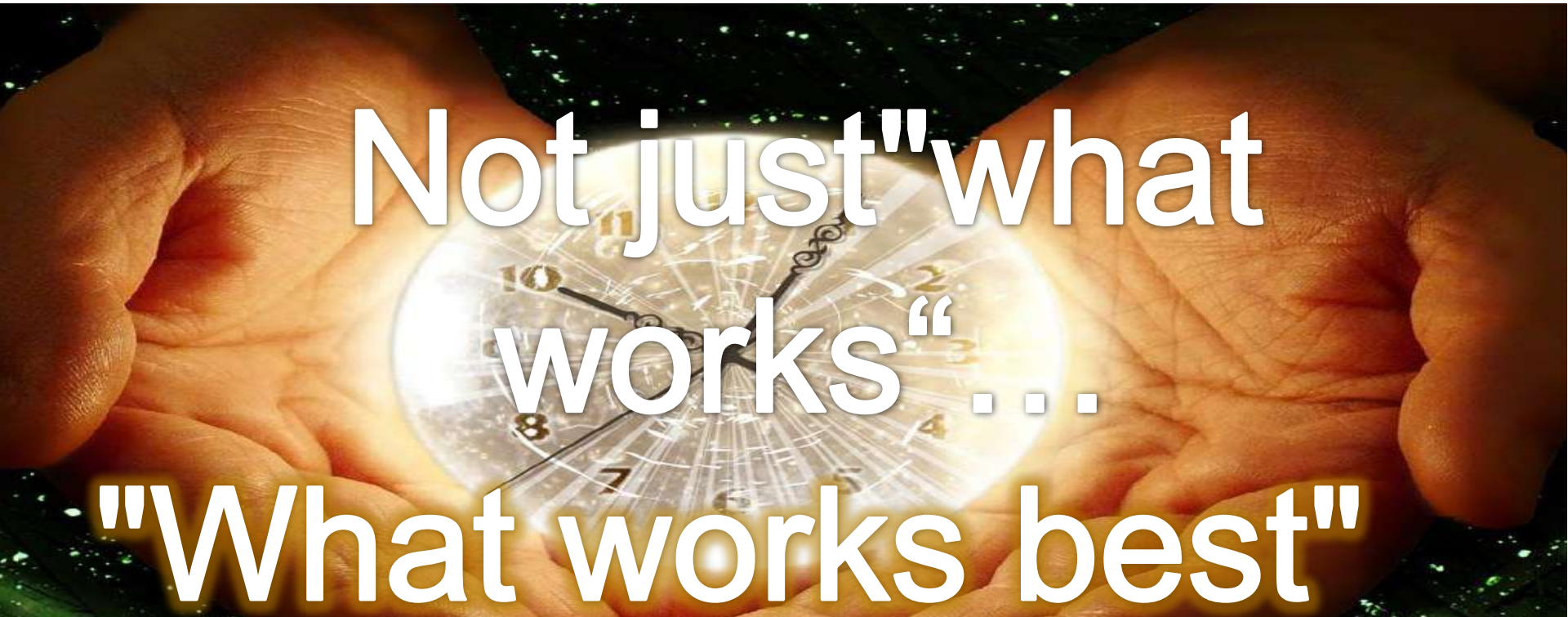
What do you think are the most effective or high leverage instructional strategies - those that lead to student achievement/student learning?

95% percent of what we do instructionally has a positive effect on student achievement/learning….

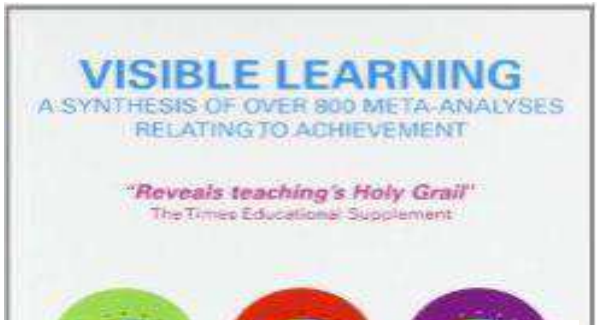
But, how positive???

Time is Precious!!!

Identify the strategies that have the most leverage and focus on those.



“Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement” – John Hattie



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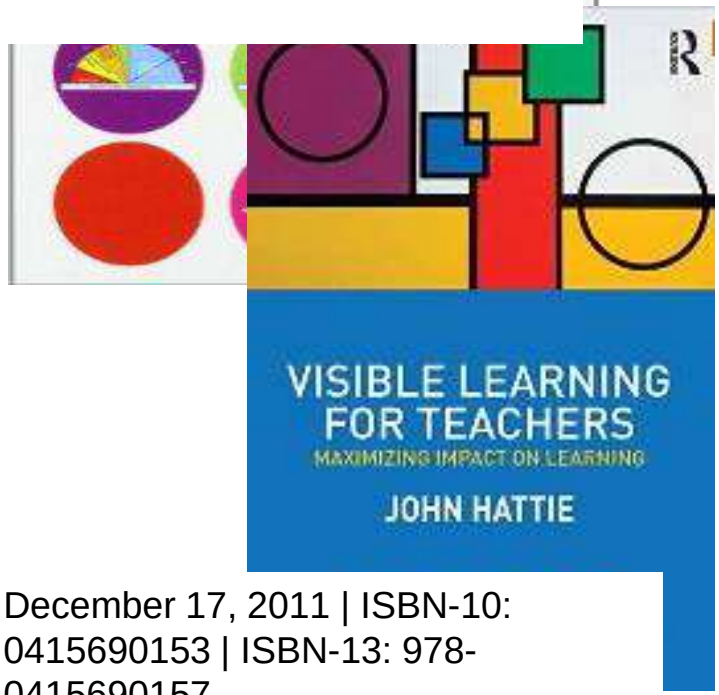

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John Hattie:

200,000 "effect sizes" **52,637 studies** involving more than 50 million students.

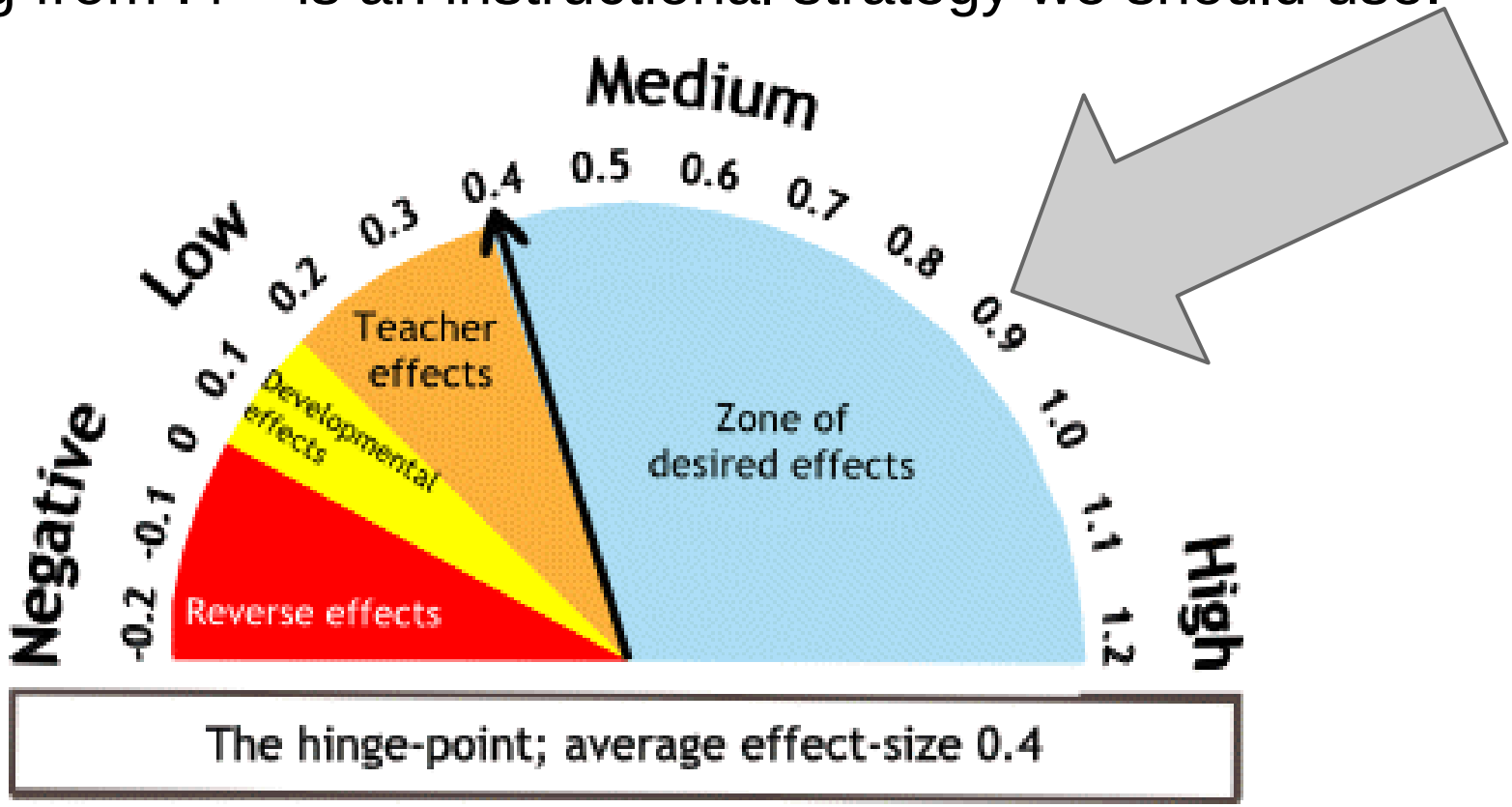
15 years of research

The largest ever collection of evidence-based research into what actually works in schools to improve learning.

.4 is the "Hinge-Point"

An Effect Size of **1.0** or better is equivalent to advancing the student's achievement level by approximately a full grade.

Anything from .4 + is an instructional strategy we should use.



Hattie's High-Leverage Strategies

Student Expectations: 1.44 (Students have high expectations for their learning and monitor their progress/achievements – use Rubrics and Excel)

Comprehensive Interventions - 1.07

-Computer Tutorials - .71

Formative Assessment - .90

Reciprocal Teaching - .74 (students learn and use cognitive strategies such as summarizing, questioning, clarifying, and predicting…students take role of teacher)

Effective Feedback - .73 (feedback is only really effective when it follows up effective instruction: it needs initial learning or surface information to build on – most important feedback is student to teacher to adjust instruction)

Peer Tutoring - .55

Cooperative Learning - .59 (has a prime effect on enhancing interest and problem solving provided it is set up with high levels of peer involvement)

Marzano's Essential Nine

Setting objectives and providing feedback - .61

Reinforcing effort and providing recognition - .80

Cooperative Learning - .73

Cue,Questions,and Advance Organizers - .59

Nonlinguistic Representations - .75

Summarizing and Note Taking - 1.00

Assigning Homework and providing practice - .77

Identifying similarities and differences - 1.61

Generating and testing hypotheses - .61

Marzano, R.J. (2007). The art and science of teaching: A comprehensive framework for effective instruction. Alexandria, VA: ASCD.

The Recipe for Success: Planning for Student Learning *with Technology* vs. Planning for Teaching *with Technology*

1. Have complete clarity about the Standard(s) (TEKS) you are teaching… (Hattie, Teacher clarity - .75)

   "What must students know and be able to do?" – *Standards/TEKS*
   "How will I know when they master it?" – *Assessment*

2. Choose high leverage learning strategies - the "biggest bang for the buck"

3 Then, choose technology tools, resources, apps

that support those strategies and design student learning activities

Most successful student learning and achievement

WHY?

Why am I choosing this instructional strategy or this digital resource?

The ***Most Effective*** Strategies For Lessons Involving:

1. **Learning new content**
2. **Practicing and Deepening Content That Has Been Previously Addressed**
3. **Lessons Involving Cognitively Complex Tasks (Generating and Testing Hypotheses)**

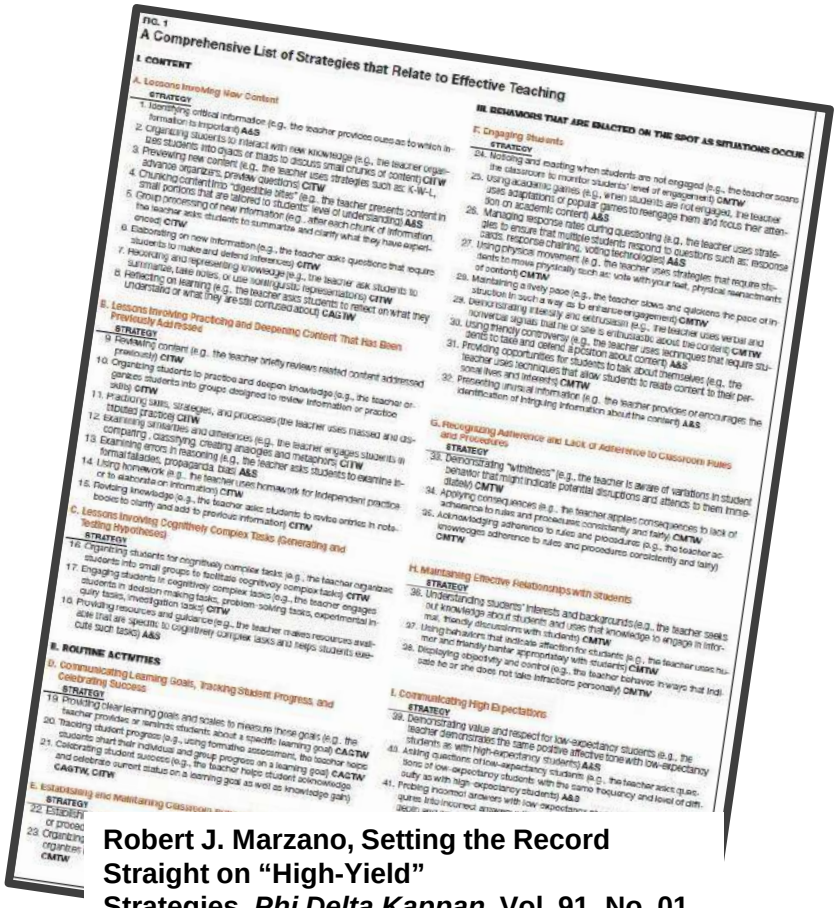


FIG. 1
A Comprehensive List of Strategies that Relate to Effective Teaching

I. CONTENT

A. Lessons Involving New Content

STRATEGY

1. Identifying critical information (e.g., the teacher provides cues as to which information is important) A&S
2. Organizing students to interact with new knowledge (e.g., the teacher organizes students into dyads or triads to discuss small chunks of content) CITW
3. Previewing new content (e.g., the teacher uses strategies such as: K-W-L, advance organizers, preview questions) CITW
4. Chunking content into "digestible bites" (e.g., the teacher presents content in small portions that are tailored to students' level of understanding) A&S
5. Group processing of new information (e.g., after each chunk of information the teacher asks students to summarize and clarify what they have experienced) CITW
6. Elaborating on new information (e.g., the teacher asks questions that require students to make and defend inferences) CITW
7. Recording and representing knowledge (e.g., the teacher ask students to summarize, take notes, or use nonlinguistic representations) CITW
8. Reflecting on learning (e.g., the teacher asks students to reflect on what they understand or what they are still confused about) CAGTW

B. Lessons Involving Practicing and Deepening Content That Has Been Previously Addressed

STRATEGY

9. Reviewing content (e.g., the teacher briefly reviews related content addressed previously) CITW
10. Organizing students to practice and deepen knowledge (e.g., the teacher organizes students into groups designed to review information or practice skills) CITW
11. Practicing skills, strategies, and processes (the teacher uses massed and distributed practice) CITW
12. Examining similarities and differences (e.g., the teacher engages students in comparing, classifying, creating analogies and metaphors) CITW
13. Examining errors in reasoning (e.g., the teacher asks students to examine information for errors in logic, such as: overgeneralizations, false analogies, misuse of causation, or the use of emotion rather than logic) A&S
14. Using homework (e.g., the teacher uses homework for independent practice or to elaborate on information) CITW
15. Revising knowledge (e.g., the teacher asks students to revise entries in notebooks to clarify and add to previous information) CITW

C. Lessons Involving Cognitively Complex Tasks (Generating and Testing Hypotheses)

STRATEGY

16. Organizing students for cognitively complex tasks (e.g., the teacher organizes students into small groups to facilitate cognitively complex tasks) CITW
17. Engaging students in cognitively complex tasks (e.g., the teacher engages students in decision making tasks, problem-solving tasks, experimental inquiry tasks, investigation tasks) CITW
18. Providing resources and guidance (e.g., the teacher makes resources available that are specific to cognitively complex tasks and helps students execute such tasks) A&S

E. ROUTINE ACTIVITIES

D. Communicating Learning Goals, Tracking Student Progress, and Celebrating Success

STRATEGY

19. Providing clear learning goals and scales to measure those goals (e.g., the teacher provides or reminds students about a specific learning goal) CAGTW
20. Tracking student progress (e.g., using formative assessment, the teacher helps students chart their individual and group progress on a learning goal) CAGTW
21. Celebrating student success (e.g., the teacher helps student acknowledge and celebrate current status on a learning goal as well as knowledge gain) CAGTW, CITW

E. Establishing and Maintaining Classroom

STRATEGY

22. Establish
or proce
23. Organizing
organizes
CMTW

III. BEHAVIORS THAT ARE ENACTED ON THE SPOT AS SITUATIONS OCCUR

F. Engaging Students

STRATEGY

24. Noticing and reacting when students are not engaged (e.g., the teacher scans the classroom to monitor students' level of engagement) CMTW
25. Using academic games (e.g., when students are not engaged, the teacher uses adaptations of popular games to reengage them and focus their attention on academic content) A&S
26. Managing response rates during questioning (e.g., the teacher uses strategies to ensure that multiple students respond to questions such as: response cards, response chaining, voting technologies) A&S
27. Using physical movement (e.g., the teacher uses strategies that require students to move physically such as: vote with your feet, physical representations of content) CMTW
28. Maintaining a lively pace (e.g., the teacher slows and quickens the pace of instruction in such a way as to enhance engagement) CMTW
29. Demonstrating intensity and enthusiasm (e.g., the teacher uses verbal and nonverbal signals that he or she is enthusiastic about the content) CMTW
30. Using friendly controversy (e.g., the teacher uses techniques that require students to take and defend a position about content) A&S
31. Providing opportunities for students to talk about themselves (e.g., the teacher uses techniques that allow students to relate content to their personal lives and interests) CMTW
32. Presenting unusual information (e.g., the teacher provides or encourages the identification of intriguing information about the content) A&S

G. Recognizing Adherence and Lack of Adherence to Classroom Rules and Procedures

STRATEGY

33. Demonstrating "withitness" (e.g., the teacher is aware of variations in student behavior that might indicate potential disruptions and attends to them immediately) CMTW
34. Applying consequences (e.g., the teacher applies consequences to lack of adherence to rules and procedures consistently and fairly) CMTW
35. Acknowledging adherence to rules and procedures (e.g., the teacher acknowledges adherence to rules and procedures consistently and fairly) CMTW

H. Maintaining Effective Relationships with Students

STRATEGY

36. Understanding students' interests and backgrounds (e.g., the teacher seeks out knowledge about students and uses that knowledge to engage in informal, friendly discussions with students) CMTW
37. Using behaviors that indicate affection for students (e.g., the teacher uses humor and friendly banter appropriately with students) CMTW
38. Displaying objectivity and control (e.g., the teacher behaves in ways that indicate he or she does not take infractions personally) CMTW

I. Communicating High Expectations

STRATEGY

39. Demonstrating value and respect for low-expectancy students (e.g., the teacher demonstrates the same positive affective tone with low-expectancy students as with high-expectancy students) A&S
40. Asking questions of low-expectancy students (e.g., the teacher asks questions of low-expectancy students with the same frequency and level of difficulty as with high-expectancy students) A&S
41. Probing incorrect answers with low-expectancy students (e.g., the teacher asks

Robert J. Marzano, Setting the Record Straight on "High-Yield" Strategies, *Phi Delta Kappan*, Vol. 91, No. 01, September 2009, pp. 30-37.

http://www.marzanoresearch.com/documents/Marzano9-09.pdf

Always Make the "WHY" Your Focus

Know your standard/TEKS (what do I want my students to know and be able to do)
Know and communicate to students the high expectations for their learning.
Know the instructional strategies that are high leverage.
Know which technologies support these strategies.
Plan for learning, not teaching.

The Challenge of Cooperation for Instructional Staff

- **EVERYONE** *(Teachers, School Librarians, Instructional Technology, Curriculum and Instruction)*

work to keep the focus on the Standards/TEKS, the most appropriate instructional strategies, and the technology that BEST supports ALL of these.