



<https://www.youtube.com/watch?v=353GB6Q0FaA>



"The future belongs to the
curious. The ones who are
not afraid to try it, explore
it, poke at it, question it,
and turn it inside out."

- Unknown

WELCOME

Instructional Practices Workshop

Presented by

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Dr. Beth Kania-Gosche

Dr. Jami Swindell

Courtney Jones

Suzy Otto



Expectations

No judgment
Ask questions
Be flexible



What is a
question in your
field that sparks
curiosity and
wonder?



How do we translate
the language we use
in a way that kids
can understand?





The biggest effect on student learning occurs when teachers become learners of their own teaching, and when students become their own teachers.



PROFESSOR JOHN HATTIE

Do

Set expectations, clear instructions

Observe and Watch Responses of Children and Adults in Room

Active Learning and Engagement

Open Ended Questions and Exploration

Chunk Out Lesson and Activity

Modeling and Demonstration

Balance Large Group- Small Group- Individual

Provide real world kid friendly examples

Don't

Lecture for more than 10 minutes

“Wing it”

Assume prior knowledge

Be condescending

Ignore the why

Jargon or highly technical language

Shut down questions and enthusiasm

Ignore classroom management strategies

Forget the prep, materials, and cleanup



PEDAGOGICAL SKILLS

DEFINITION

Pedagogy refers to the methods and strategies used in teaching, specifically for children and young learners. It involves understanding the cognitive, social, and emotional development of students to effectively deliver education. The students are seen as relatively more dependent learners.

EXAMPLES

- **Differentiated Instruction:** Adapting teaching methods and materials to meet the diverse learning needs of students.
- **Scaffolding:** Providing temporary support that helps students reach higher levels of comprehension than they would without assistance.

How do kids learn?

PreK
Elementary
Middle School
High School



Stop by STEM Center anytime,
105 Centennial

Effective influences relating to student achievement are:

- Teacher clarity
- Reciprocal teaching
- Feedback
- Meeting students where they are
- Teacher-student relationships
- Metacognitive strategies
- Self-verbalization/ questioning
- Problem-solving teaching

Let's Explore the STEM Center!



What's Next?

Attend a workshop to develop your future activities and ideas!

2 dates: September 30 at 1:00 or October 27 at 2:00, located at the 105 Centennial

Spring dates will be announced soon!

Contact Dr. Beth at bakm75@umsystem.edu for individual assistance

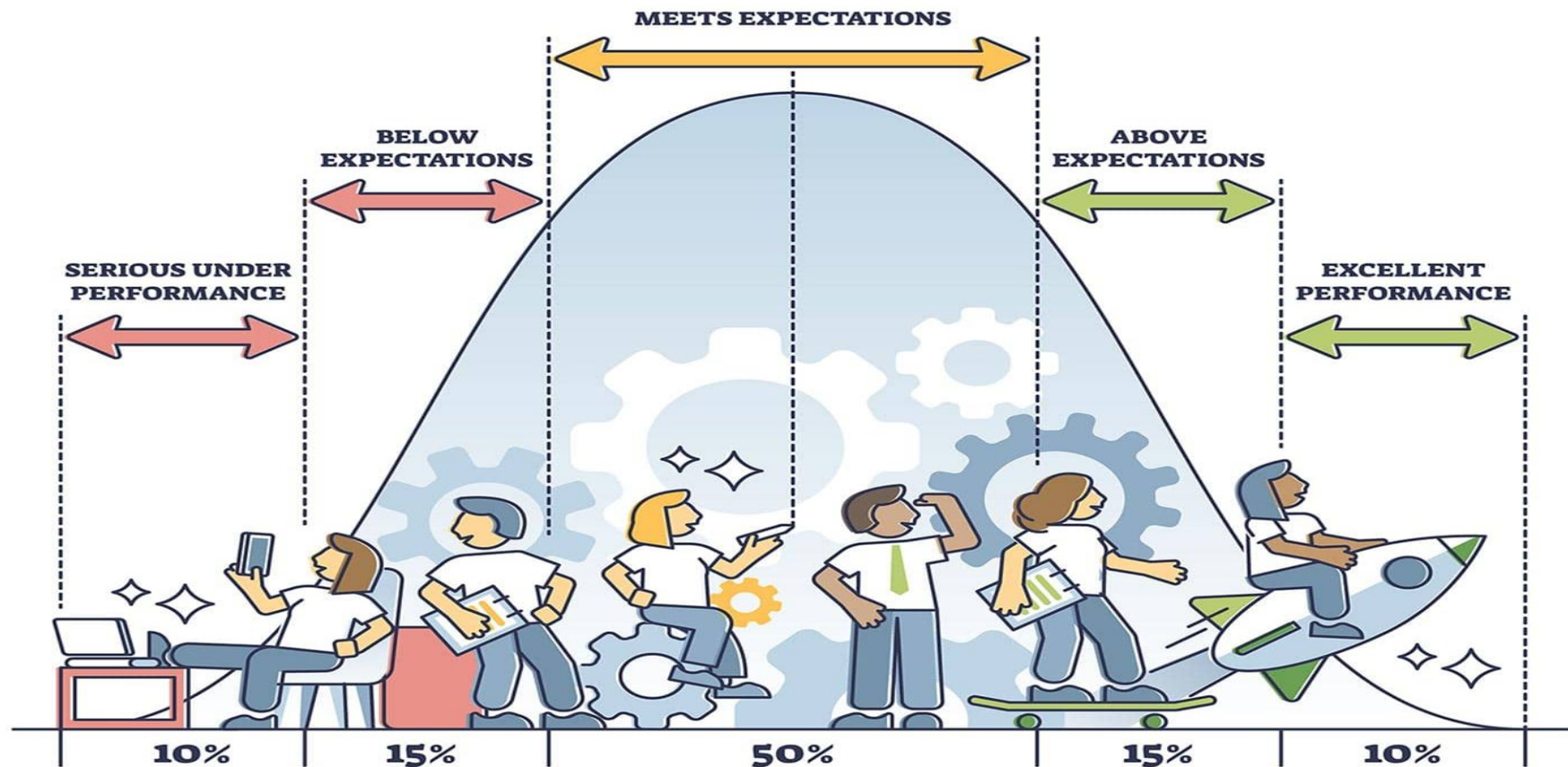


John Hattie, Visible Learning. Pt 2: Effective Methods



<https://www.youtube.com/watch?v=3pD1DFTNQf4>

BELL CURVE



Effect Size (r)

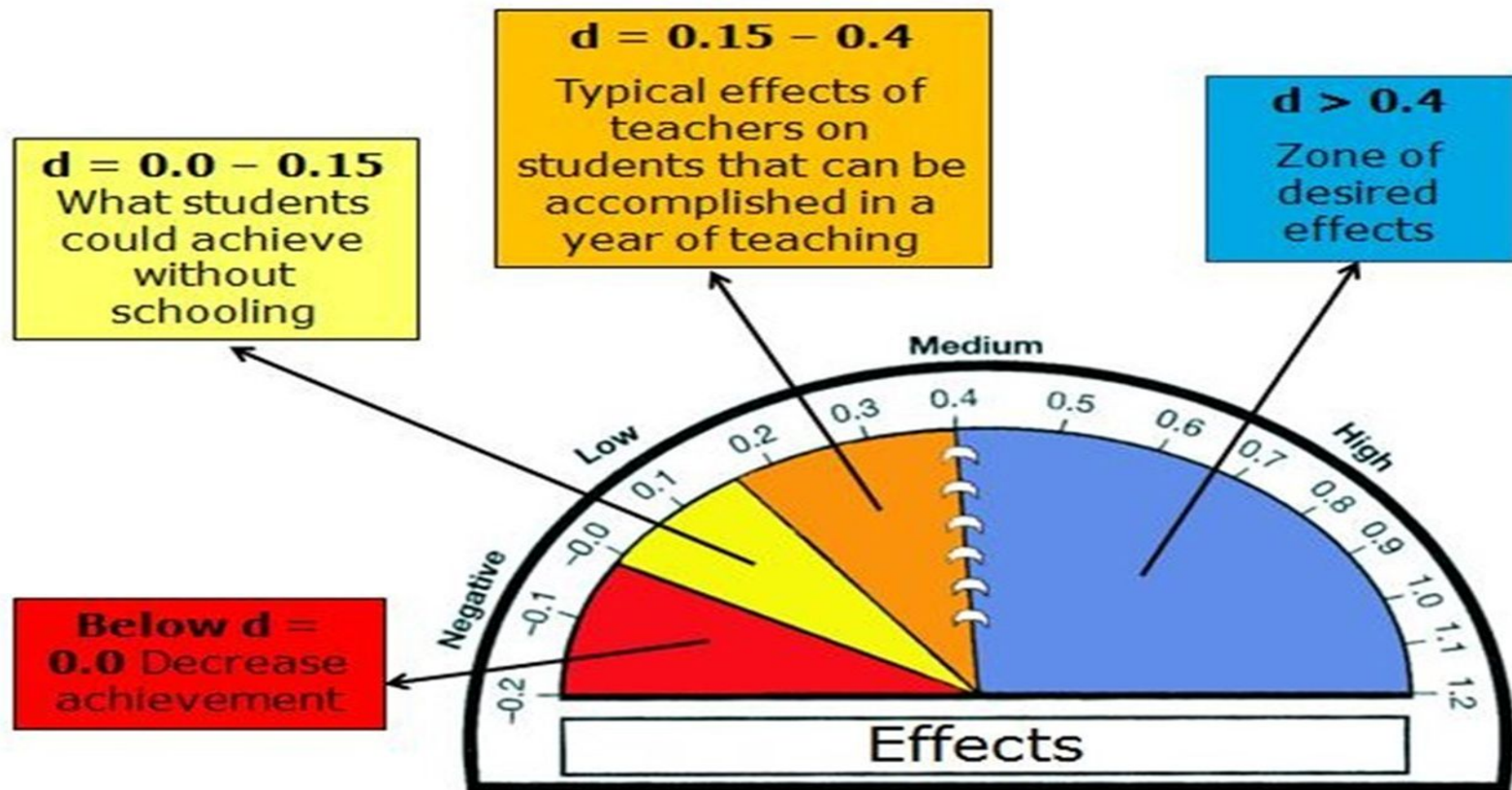
Small effect size: .20

Medium effect size: .50

Large effect size: .80

Large effect size ranges from .50 and above

Barometers of Influence



Hattie's Barometer of Influence

The work of John Hattie and his research on influences that yield the highest degree of impact on student achievement focuses on the measurement that they have on student learning. According to visiblelearning.org, Hattie ranked 252 influences that are related to learning outcomes from very positive effects to very negative effects. As practitioners, we must identify what works best within instruction, in order to implement the most effective strategies with high levels of fidelity.

Here is an illustration of Hattie's effect sizes on the barometer of influence, moving from left to right, with explanation for each colored segment of the barometer:

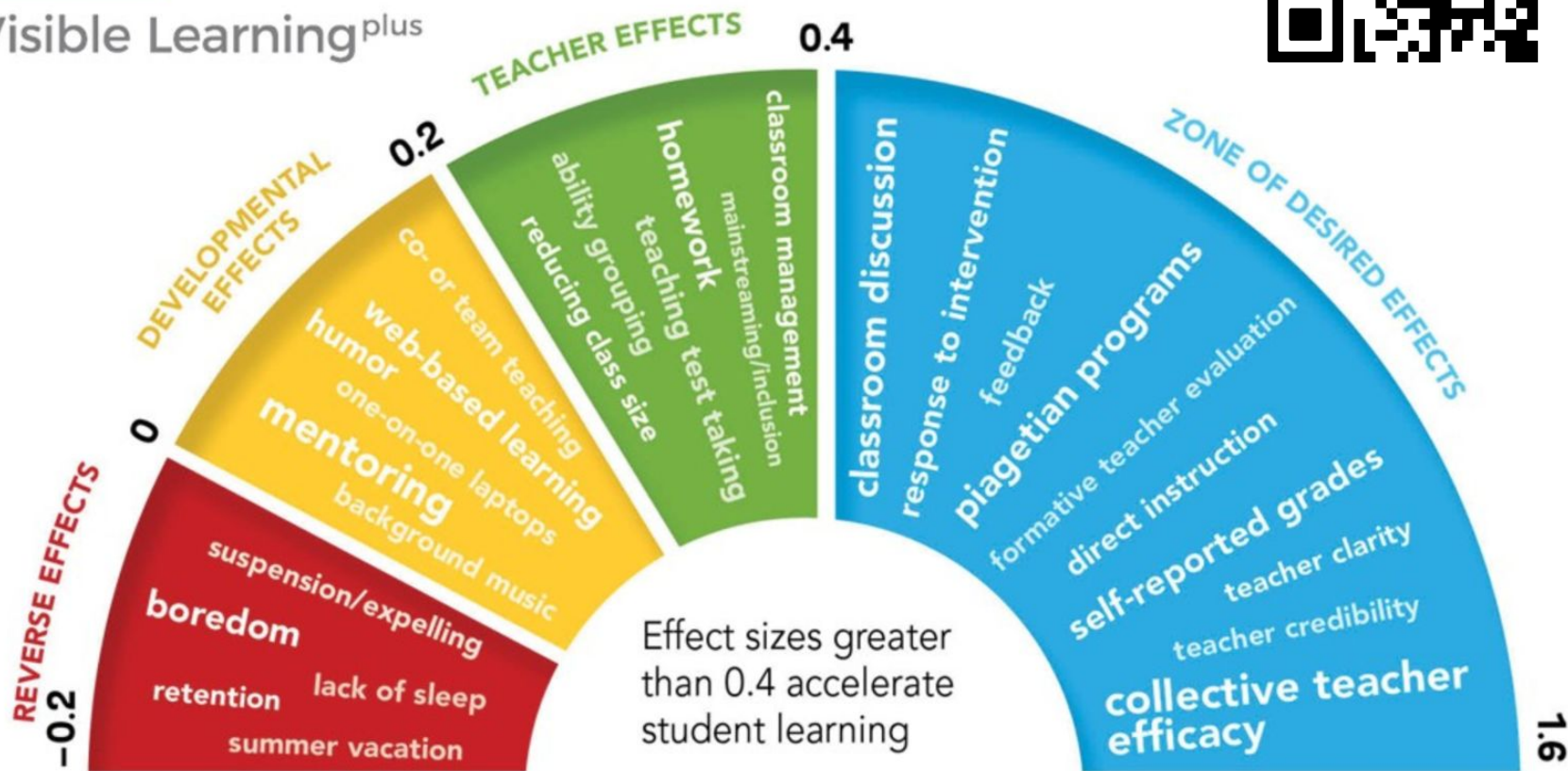
- **Red:** An effect size below zero represents strategies and actions that students may be exposed to that have reverse consequences on their learning.
- **Yellow:** An effect size between zero and .15 indicates progress that a student can make without proper strategy instruction and guidance, where students are learning on their own through natural inquisitiveness and could achieve without schooling.
- **Orange:** An effect size up to .40 represents a school year's growth over the course of one school year. Schools that use effect sizes to measure student progress can maximize their impact on student outcomes.
- **Blue:** An effect size of greater than .40 is the Zone of Desired Effects. Hattie's research shows that there are many influences, when done with fidelity, will give students an opportunity to grow and have one, two and sometimes three years of progress. Schools that use effect sizes to measure student progress can maximize their impact on student outcomes.

Hattie's Barometer of Influence



CORWIN

Visible Learning^{plus}



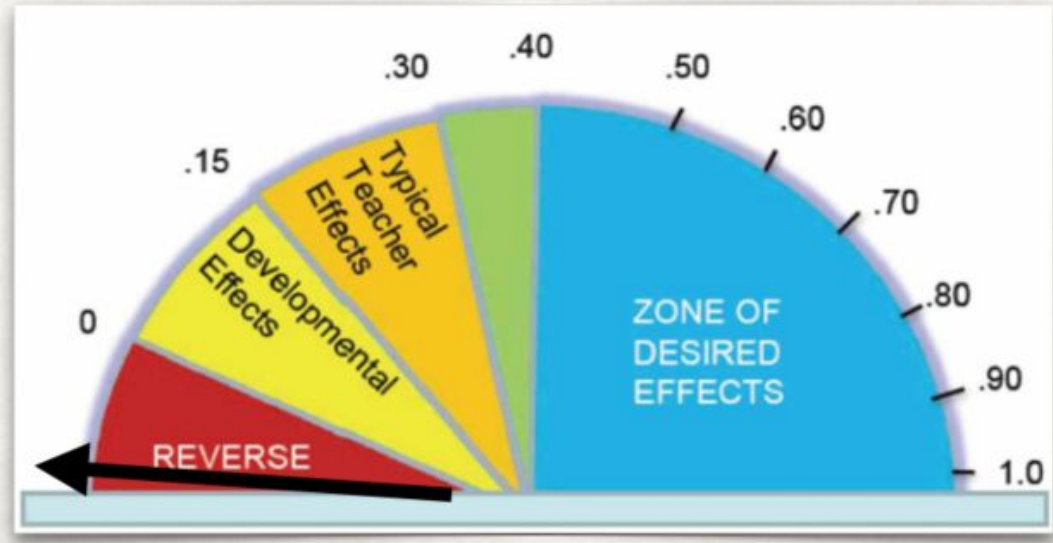
Hattie's Barometer of Influence



TRADITIONAL TEACHING STRATEGIES

NEGATIVE OR LOW EFFECT SIZE

Television = -0.18



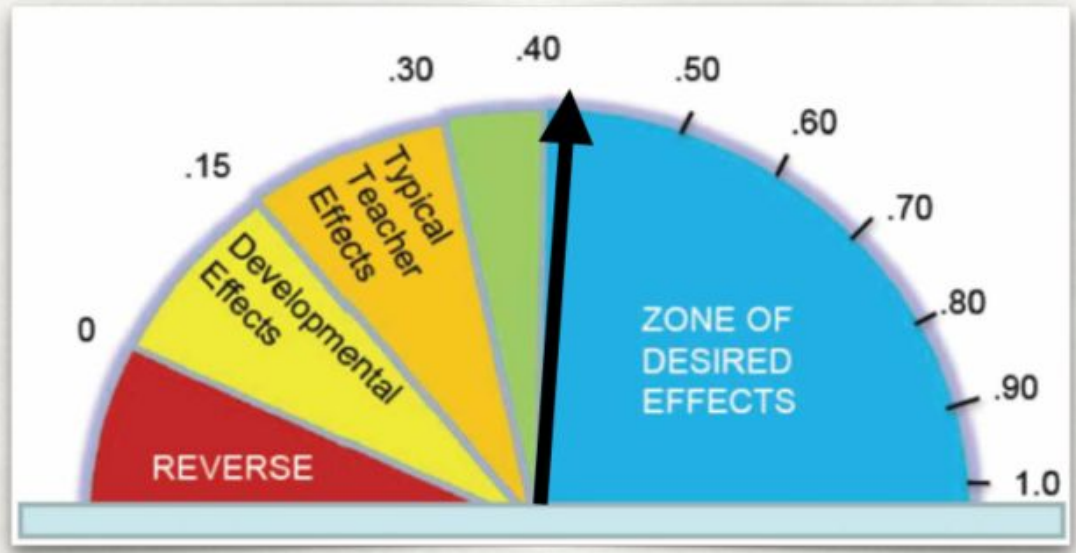
Hattie's Barometer of Influence



TRADITIONAL TEACHING STRATEGIES

MEDIUM EFFECT SIZE

Teacher Expectations = 0.43



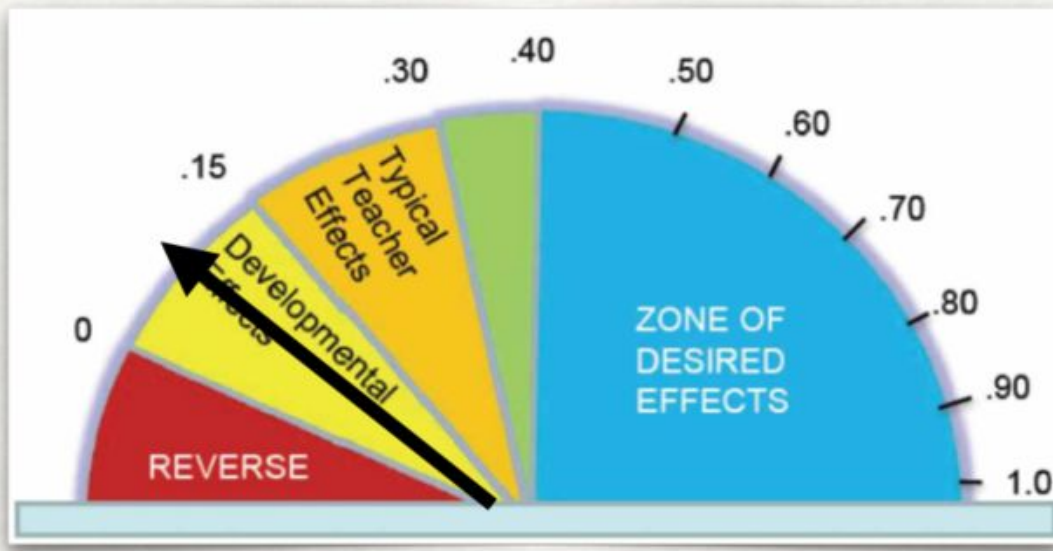
Hattie's Barometer of Influence



TRADITIONAL TEACHING STRATEGIES

NEGATIVE OR LOW EFFECT SIZE

Teacher Subject Matter Knowledge = 0.09



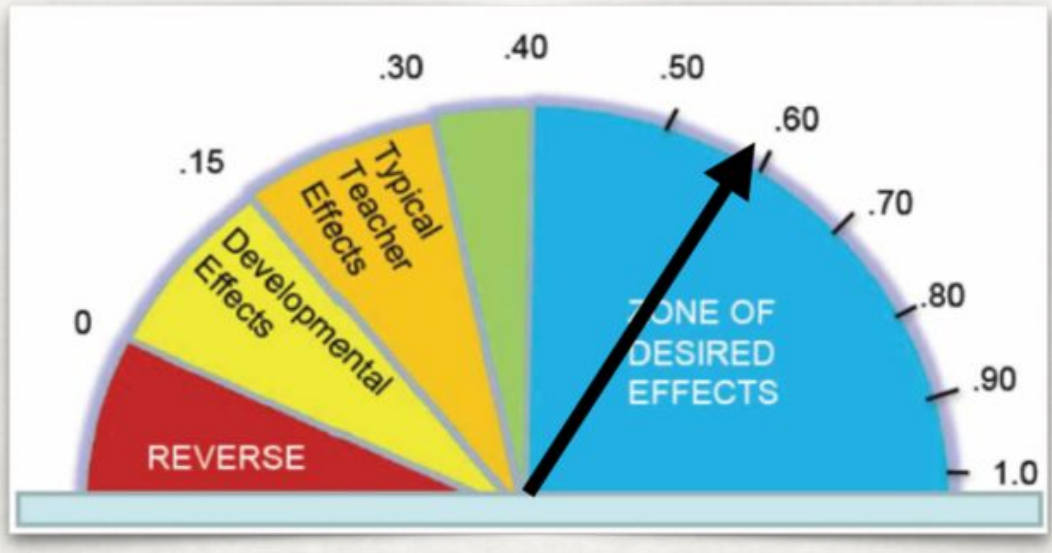
Hattie's Barometer of Influence



TRADITIONAL TEACHING STRATEGIES

MEDIUM EFFECT SIZE

Direct Instruction = 0.59



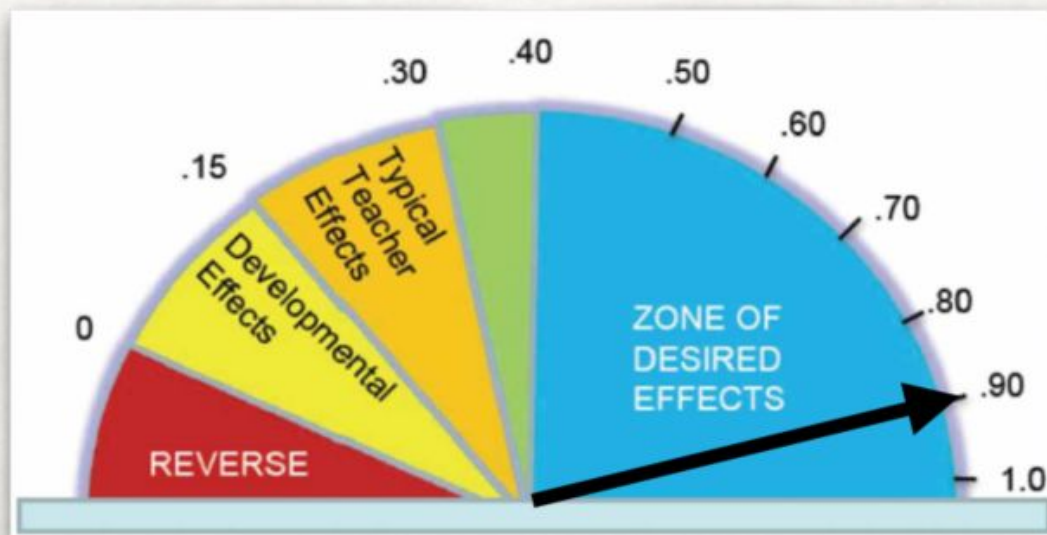
Hattie's Barometer of Influence



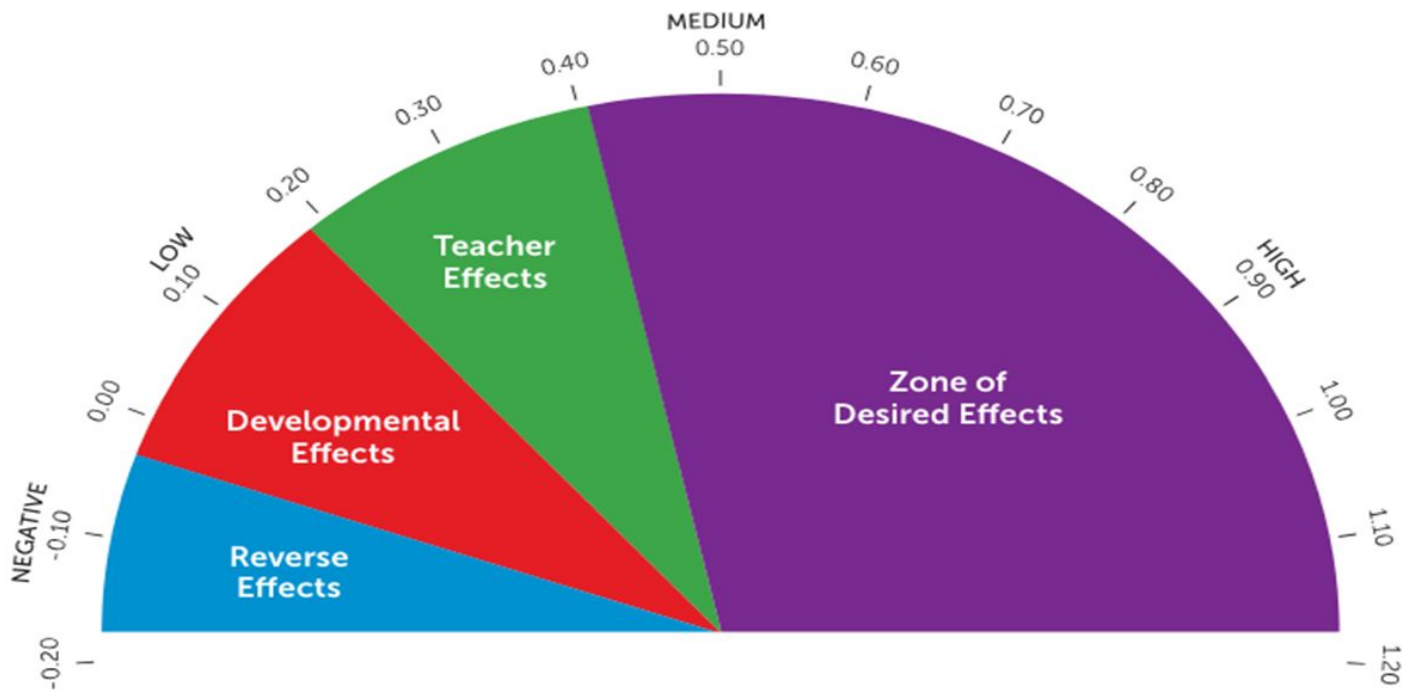
TRADITIONAL TEACHING STRATEGIES

HIGH EFFECT SIZE

Teacher Credibility in Eyes of the Students = 0.90



The Barometer of Influence*



* John Hattie, et al. (2017). *Visible Learning for Mathematics: What works best to optimize student learning*. Thousand Oaks, CA: Corwin Mathematics.

* See also: [Hattie Ranking: 252 Influences and Effect Sizes Related to Student Achievement](#)



Fo

Curiosity is
the fuel for
discovery,
inquiry,
and
learning.

