

Solvay UFSD

2017-18 Instructional Update

February 12, 2018
Eric Larison, ASI



Agenda

- **Accountability**
- **Instructional Improvement**
- **Collaboration**
- **The “Known Unknowns”**
- **Questions**



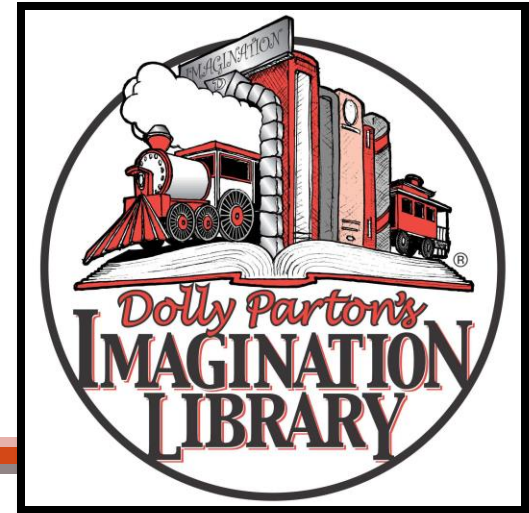
Accountability

- District and all schools are in “Good Standing” for 2017-18
- Despite the “Good Standing” status, SMS was identified to complete a “Local Assistance Plan” (LAP) based on 2015-16 MATH results.
- School and District Report Cards for 2016-17 became available on January 11, 2018. Further portions will continue to be released. High School Graduation Rate was released on Wednesday, February 7, 2018.
- <http://data.nysed.gov>

AYP Slide

Including Graduation Rate for district and SHS

Areas Supporting Improvement



“Instructional improvement comes through collaborative learning.”

- Focus on Early Childhood Education (PreK-2)
- Effective use of data (using the Data Wise protocols)
- Lesson Study
- Community Schools: funding for 2016-17, 2017-18, and 2018-19
- 21st Century Community Learning Center Grant (21CCLC)
- County Support including the 2 Promise Zone Specialists; 1 Family Support Specialist; Health Homes; and a Mental Health Clinician.

Supports for Collaboration

- **Data Wise use and support**
- **Cognitive Coaching**
- **Adaptive Schools including use of “Norms of Collaboration”**
- **AFTs Center for School Improvement Leadership Institute**
- **Training in the Sheltered Instructional Observation Protocol (SIOP) coupled with training in “language acquisition”**



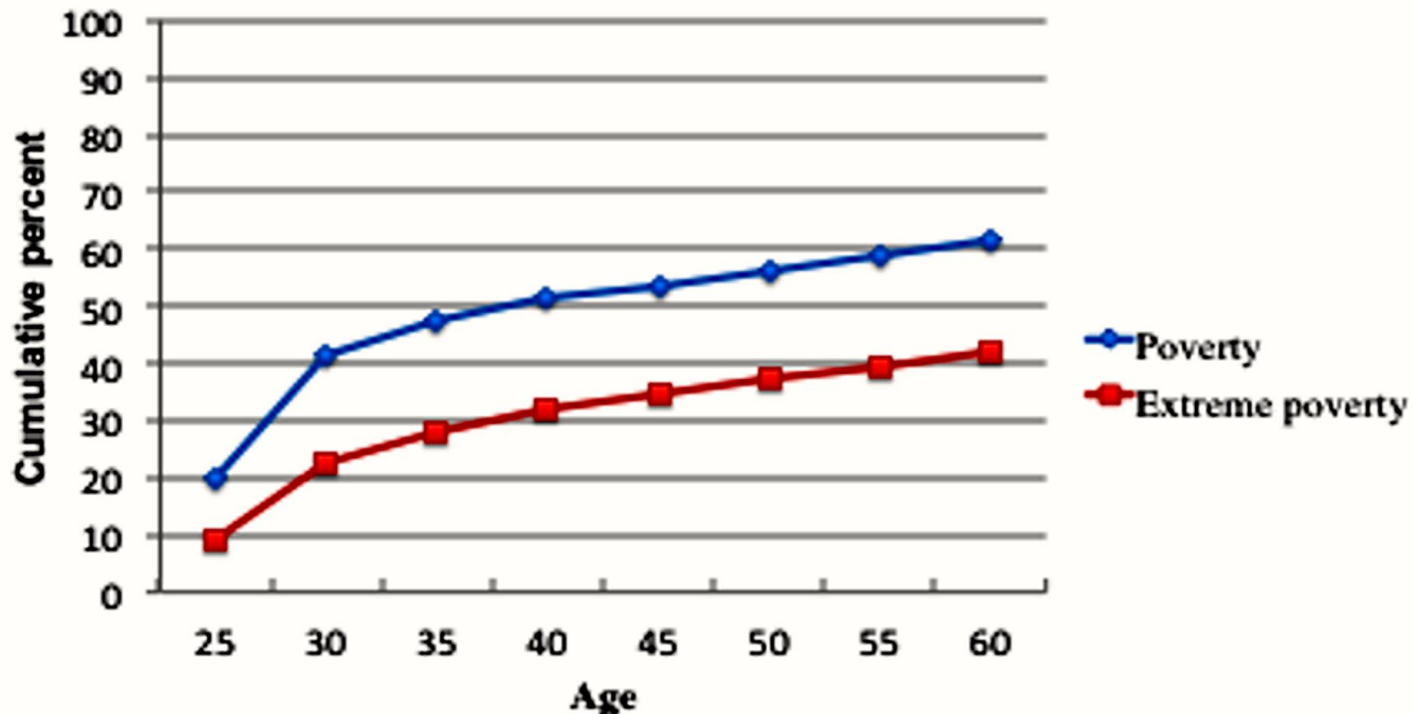
Challenges Going Forward: The “Known Unknowns”

- District Demographics



61.8 %

of the population will experience relative poverty between ages 25-60



Hirschl, Tom & Rank, Mark R. (2015) The Likelihood of Experiencing Relative Poverty over the Life Course. PLoS ONE10(7): e0133513. <https://doi.org/10.1371/journal.pone.0133513>

Poverty by the numbers:

- Federal Poverty Threshold defines a family of 4 with income less than \$24,008 as impoverished (NCCP, 2016).
- Child poverty declined last year (2016) to one million fewer than in 2015, BUT children remain the poorest age group in the nation. AND 18% child poverty rate is still too high (U.S. Census Bureau, September 12, 2017).
- More than 22% children experience homelessness in America each year, living on streets, motels, shelters, or other families (2016 Annual Homeless Assessment Report, AHAR).
- 12.9 million children lived in households that are food-insecure – having limited or uncertain access to adequate food – at some point during the year of 2016 (Feeding America, Sept. 2017).

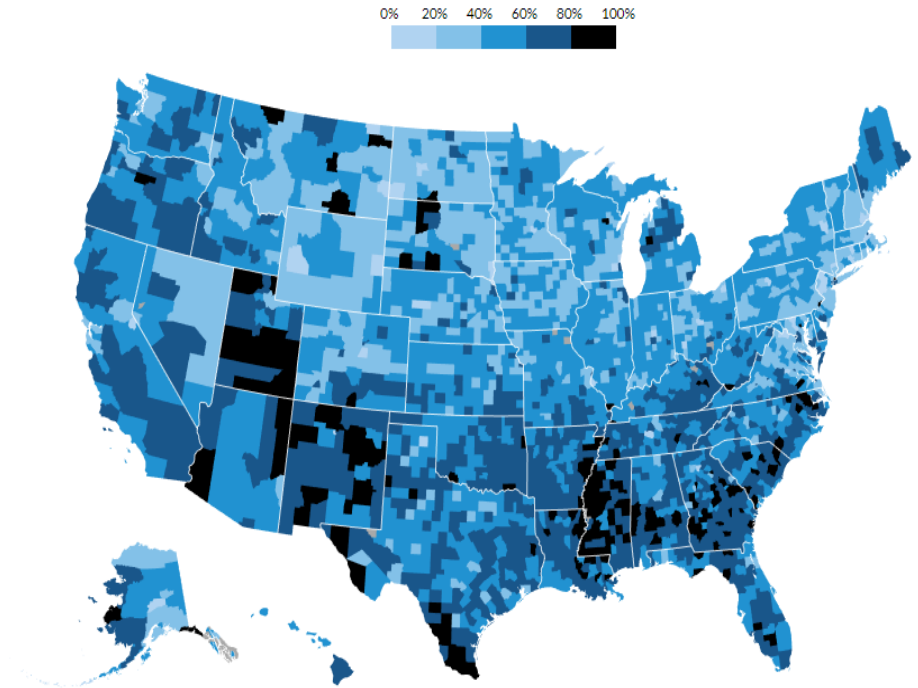
www.urban.org

Match the percent of children from low-income families in public schools:

Onondaga County - ___

Cortland County - ___

Madison County - ___



43%

36%

39%

Updated Solvay Free and Reduced Numbers Will Go Here

Challenges Going Forward

The “*Known Unknowns*”



- **District Demographics**
- **NYSED’s implementation of ESSA.**
 - Approved by USDOE
- **Changes to NYS Assessments (esp. grades 3-8 ELA and math)—slated for 2019-20**
- **NY’s Next Generation Learning Standards released in the Fall of 2017.**
- **Learning and incorporating instructional practices that give us the greatest gains—the GAP FILLERS**

“Background Knowledge”

Helping students increase their background knowledge at all levels will lead to improved:

- **Vocabulary knowledge**
- **Reading comprehension**
- **Knowledge acquisition**
- **Problem solving strategies**
- **Academic and vocational success**

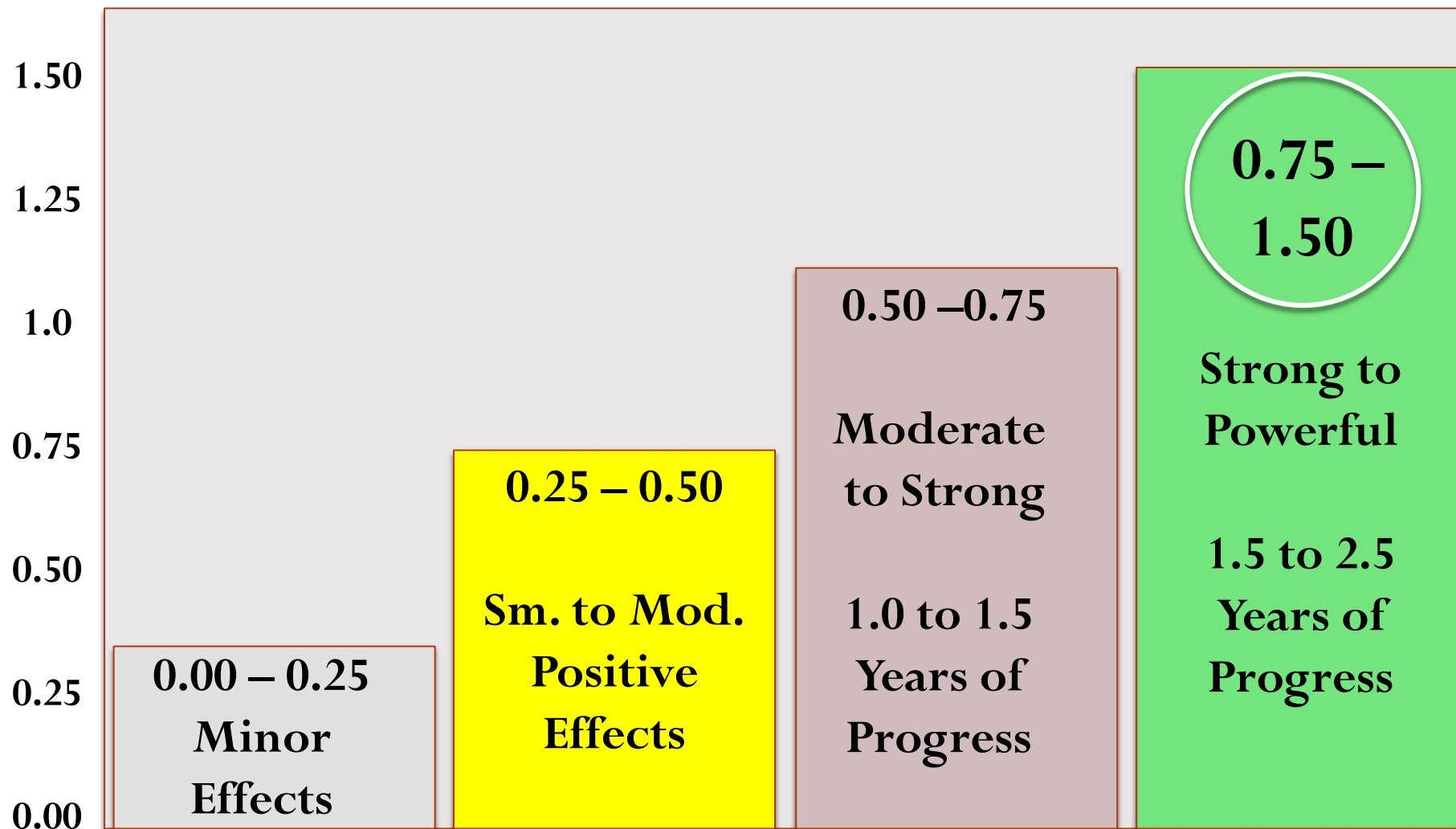
It is the key to achievement because it is “the glue that makes learning stick.”

What is the Effect Size?

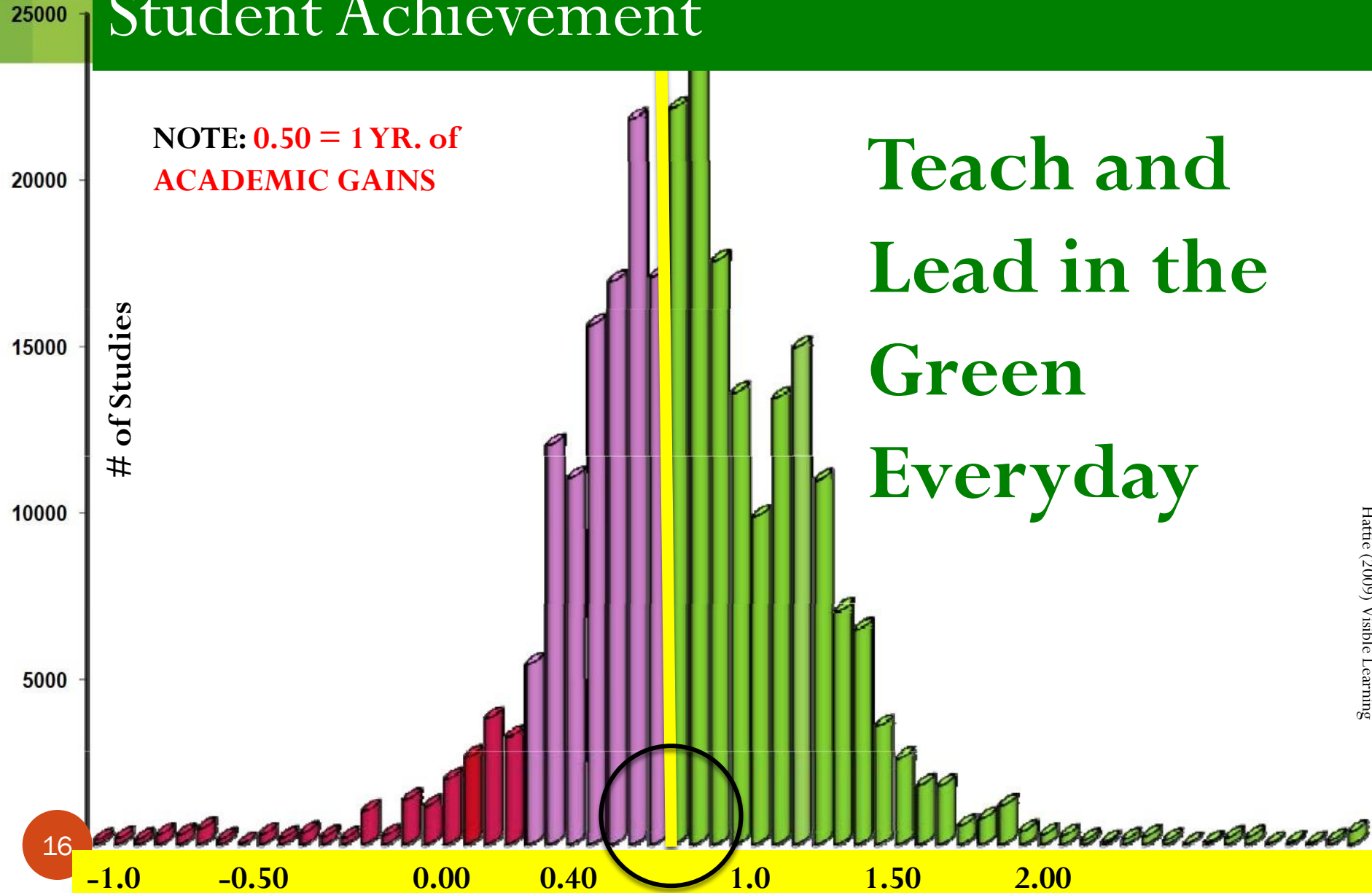


It is *a number* that tells you *the size of the impact* that a particular strategy (or factor) has on student learning. In short, it tells you *to what degree* are you are succeeding with *student learning*.

Effect Sizes Made Practical



Meta-analysis Distribution of 141 Effects on Student Achievement



What Are the Range of Effect Sizes of Two Core Factors on Student Achievement?

- ❖ The effect size of SES is 0.29 – 0.76

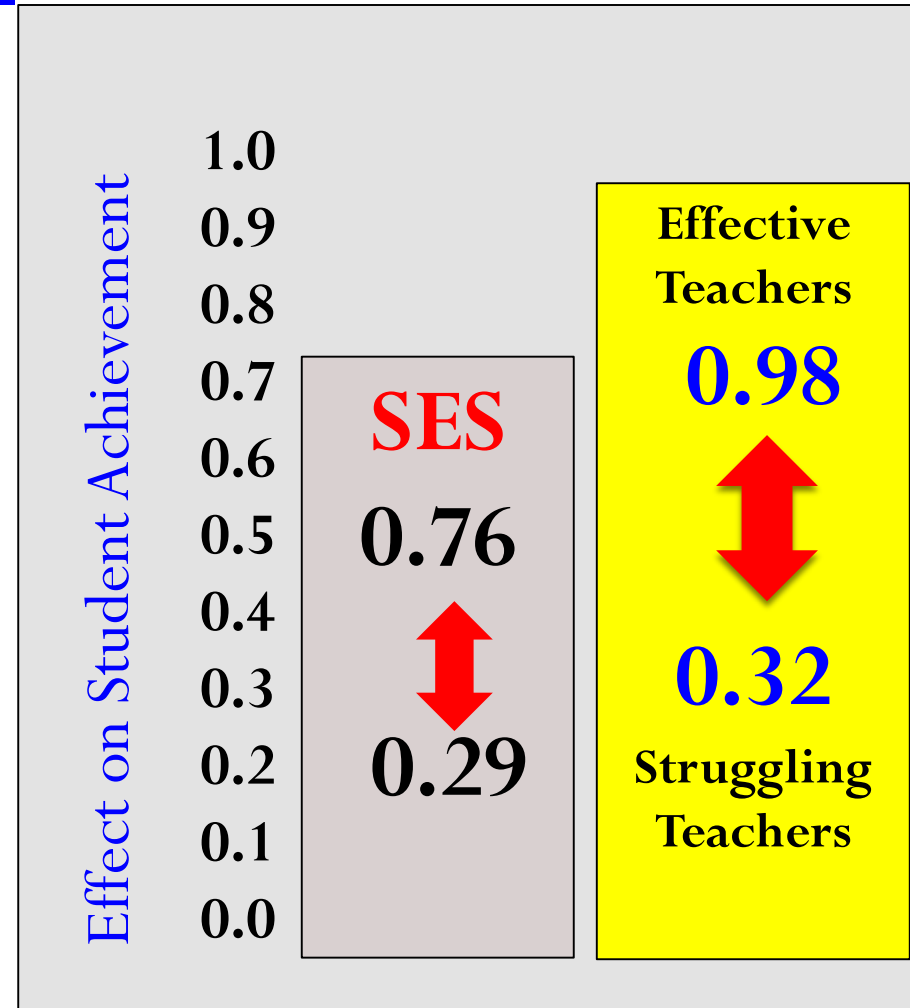
(pg. 61 from, Hattie, 2009, **Ranking of 32nd out of 138** factors) and Sirin, 2005, pg. 438. on 101,157 students.

- ❖ The effect size of 90% of teachers varies 0.32 – 0.98.

(Wenglisky, 2002. Education Policy Archives Analysis)

- ❖ Teacher effect size is even greater at a Title 1 school

Math = +1.4-1.7) and Reading = +1.6-3.7), Konstantopoulos, Nye & Hedges, 2004)



Background Note on Effect Sizes

1. There are *other measures* of strategy effectiveness besides effect sizes.
2. Marzano found that the effect sizes were *fairly consistent* across all grades (K-12).
3. He also discovered some strategies have a *greater effect on higher achieving* students.
4. But, targeted strategies (the ones you're about to get) also have a greater effect *because they're gap-fillers* and work well in all schools, especially those of poverty.

What Research Tells Us About the Effects of Parent Involvement on Student Achievement

Effect size on student achievement when parents do the following:

Participate at all

= 0.51

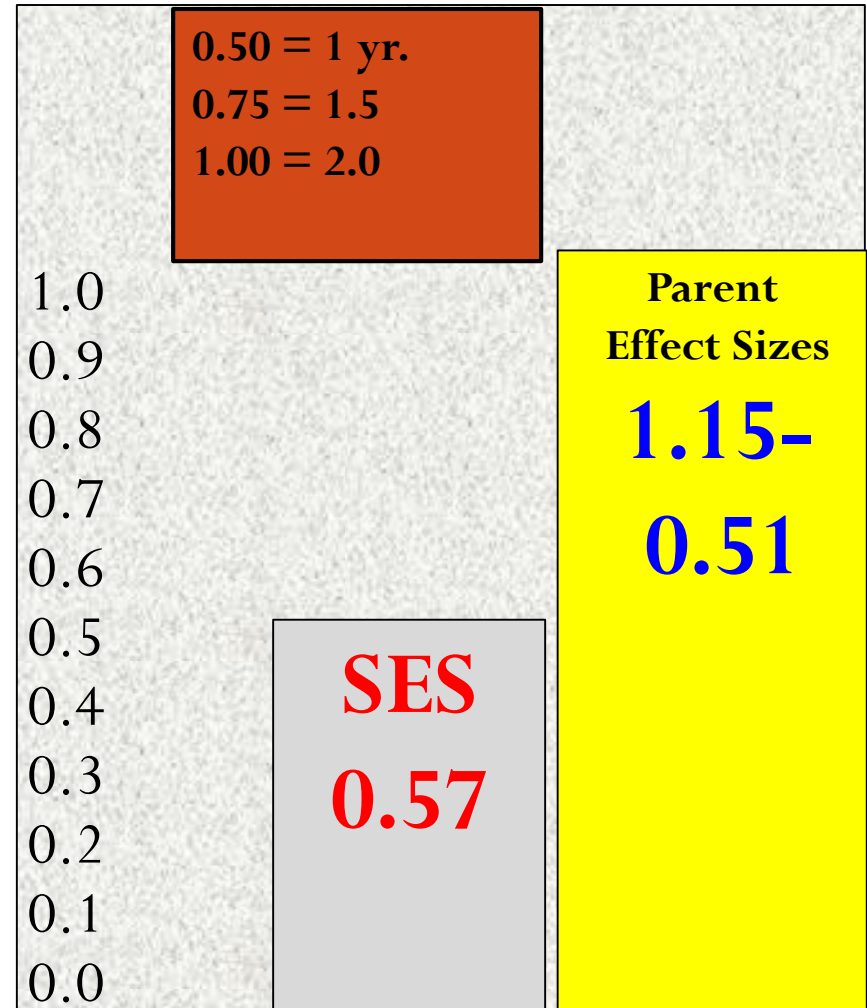
Help w/ homework

= 0.56

Have high academic

expectations = 0.74

Teach literacy = 1.15



Wenglisky, H. (2001) and Hattie, JA (2009)

What Does an Effect Size of 1.0 Mean to You?

- advances learning by two years
- improving the *rate* of learning by 50%
- Students receiving *that* treatment average exceeding 84% of students NOT receiving that treatment.
- two grade leap (e.g. from C to A)
- equal to one full standard deviation



Successful School Factors: Culture and Teams

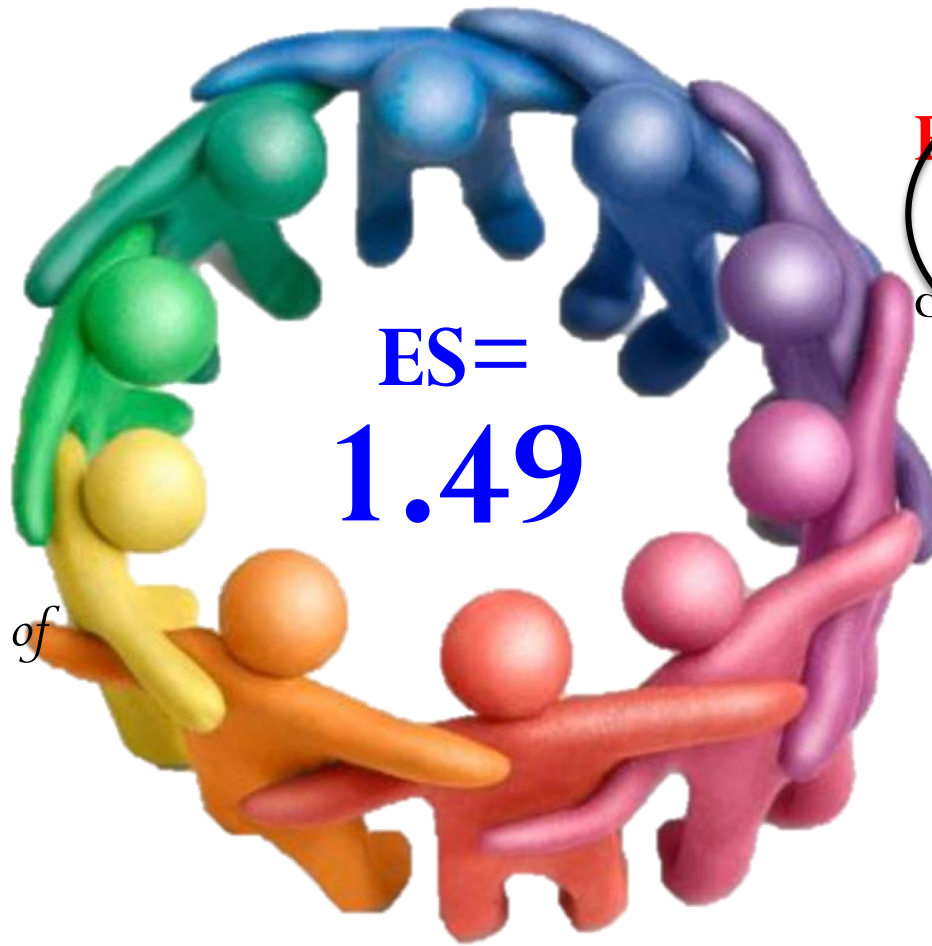


Staff Culture

of Collective
Efficacy

With a common
belief that...

*“We can succeed in spite of
ALL other factors”*



Effective Teams

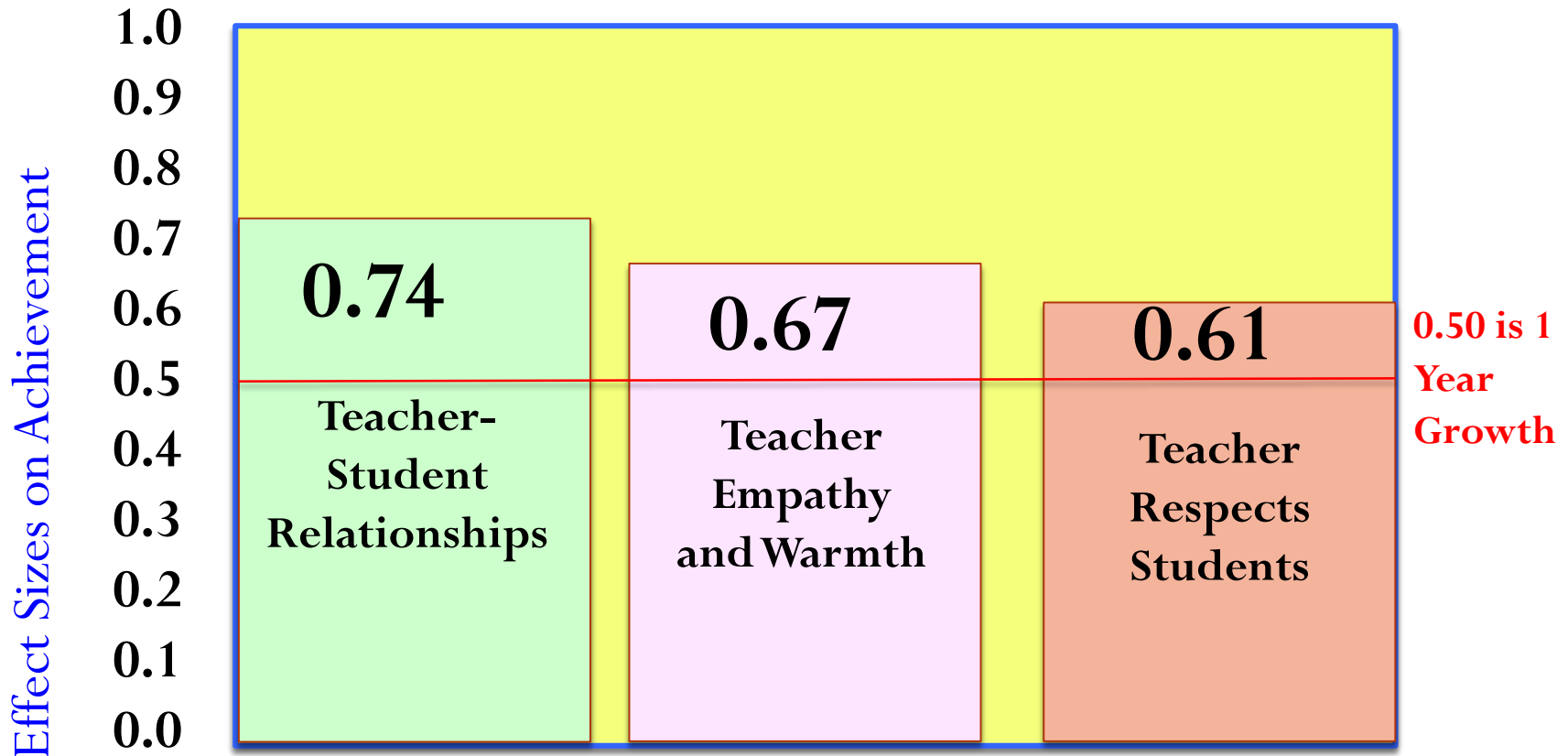
With a
data-driven focus on
both

personalizing
and improving
instruction
with deliberate
practice.

Factors or Strategies?

- Factors are **broad** (feedback, engagement, peer teaching, formative assessment, etc.). The evidence comes from averaging 100's of studies on strategies *belonging to a factor*.
This is what Professor John Hattie uses.
- Strategies are **specific** (e.g. student-generated quizzes). Evidence often comes from specific studies done under conditions or with groups that may not be generalizable. Marzano uses these.
- **EVIDENCE SUGGESTS:** Use well-executed strategies from within the appropriate factors.

Students Perform Better When Teacher is Empathic and Supportive

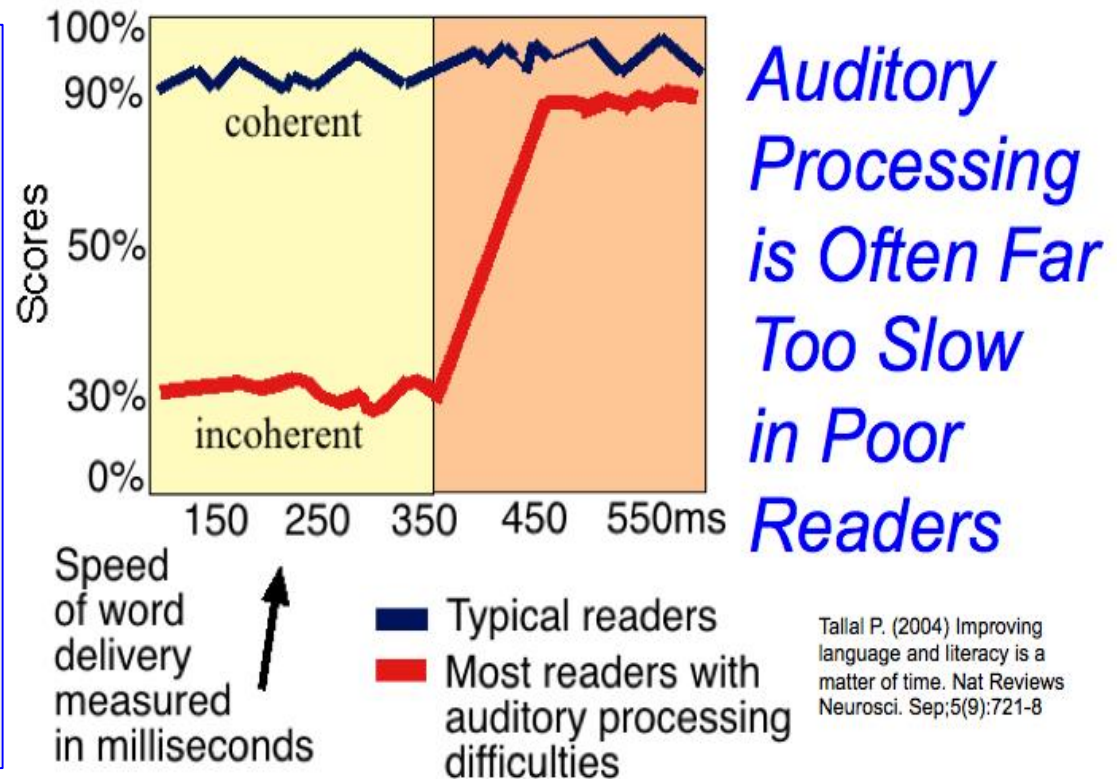


SAMPLE: Located 119 studies from 1,450 findings with 355,325 students from 2,439 schools.

SOURCE: Cornelius-White, J (2007). Learner-Centered Teacher-Student Relationships Are Effective: A Meta-Analysis. Review of Educational Research, 77,113-143. ALSO: Smith, Hattie, Baker & Bond (2008)

The Power of Phonemic Awareness and Phonological Processing

This core skill can have a large effect size on student learning. The studies show a range from $ES = .86$ to 1.57



Phonological training that included reading (combined $d = .88$) (Bus, A.G., & van Ijzendoorn, M.H. (1999). Phonological awareness and early reading: A meta-analysis of experimental training studies. *Journal of Educational Psychology*, 91, 3, 403-414.

The training programs from 10 to 18 hours had a large effect size ($d = .86$); National Reading Panel. (2000). *Teaching Children to Read: An evidenced-based assessment of the scientific research literature on reading and its implications for reading instruction. Reports of the Subgroups.* Available at <http://www.nationalreadingpanel.org/Publications/subgroups.htm>.

$d = 1.57$ effect size in: Van Boden, AF (2011). "The Effect of Phoneme Awareness Instruction on Students in Small Group and Whole Class Settings" (2011). Reading and Language Arts. Syracuse University Reading and Language Arts Dissertations. Paper 19.

What Are the Effect Sizes for Students Learning Vocabulary?

Give students time to do these:

- ✓ Redefine the new terms in their own words = **1.27**
- ✓ Give partners a description of the new terms = **1.53**
- ✓ Work out meaning from context = **1.59**
- ✓ Express words non-linguistically (e.g. gestures, movement, mind maps) = **2.27**

The “WOW” Impact of Cognitive Skill-Building

✓ **Auditory-language strategies (1.18)**

Sencibaugh, JM, 2007

✓ **Teaching general rules, then allow for trial & error (1.17)**

Marzano, et al., 2001

✓ **Mnemonic Instruction (1.62)**

Scruggs & Mastropieri, 2000)

✓ **Graphic organizers (1.2)**

Marzano, et al., 2001

✓ **Reciprocal teaching (0.86)**

Palinscar & Brown, 1984

✓ **Similarities/differences (1.3)**

Marzano, et al., 2001

✓ **Working memory training (0 .74 -1.41)**

Au, Buschkuehl, Duncan & Jaeggi, 2015

What Are “Best Practice” Strategies for Learning Vocabulary in Context?

Give students time on these three:

- ✓ Work out meaning from the context
= 1.59 ES
- ✓ Students give their partners a description in context of the new words = 1.53 ES
- ✓ Allow students to redefine the new terms *in their own words* = 1.27 ES

"Our goal is to get extraordinary things from ordinary children because it is our mission...."

"We develop confident, continual learners who are caring community members."

Questions?

