



Challenges and Opportunities: Why Poverty Matters and What Schools and Teachers Must Do

Francis Marion University School of Education

Center of Excellence

to Prepare Teachers of Children of Poverty

**National Title One Conference – Salt Lake City, UT
February 2015**

Tammy Pawloski, Ph.D.
Francis Marion University
tpawloski@fmarion.edu



Want to participate in polls and follow on your device?

EVERYSLIDE.COM/ _____

Who are we?

1. Teachers

2. School Leaders

3. District Leaders

4. Counselors / Psychologists

5. Others

Today I want more

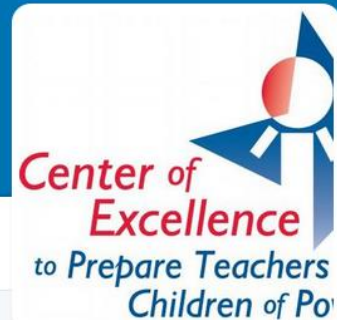
1. Content

2. Interactive Discussion

**tweeting
today?**

**@thpawloski
@CenterofExcel**

**#changethebrain
#teachersmattermore
#actionresearch**



FMU Center of Excel
@CenterofExcel

Mission: Solve the problems inherent in educating children of poverty by developing expertise in those that work with under-resource children every day.

📍 Florence, SC

🌐 fmucenterofexcellence.org

 Tweet to FMU Center of Excel



***Change the experience, and
you'll change the brain!***





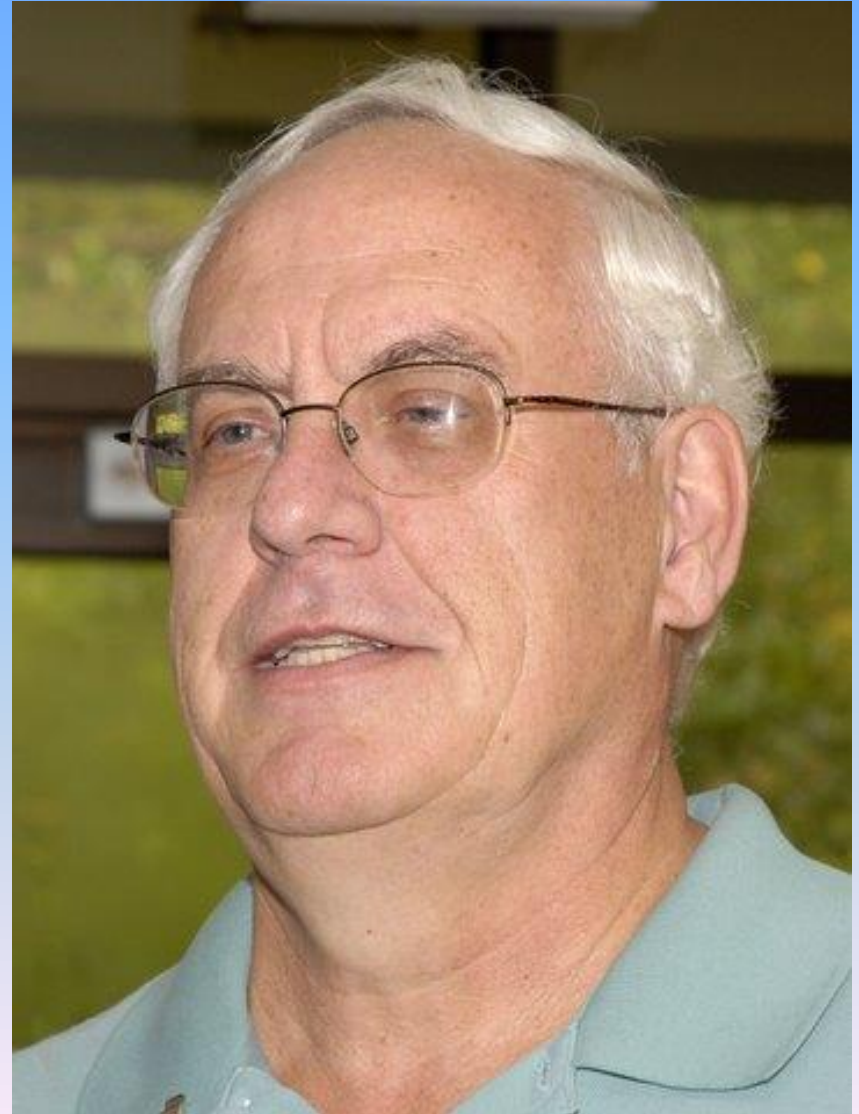
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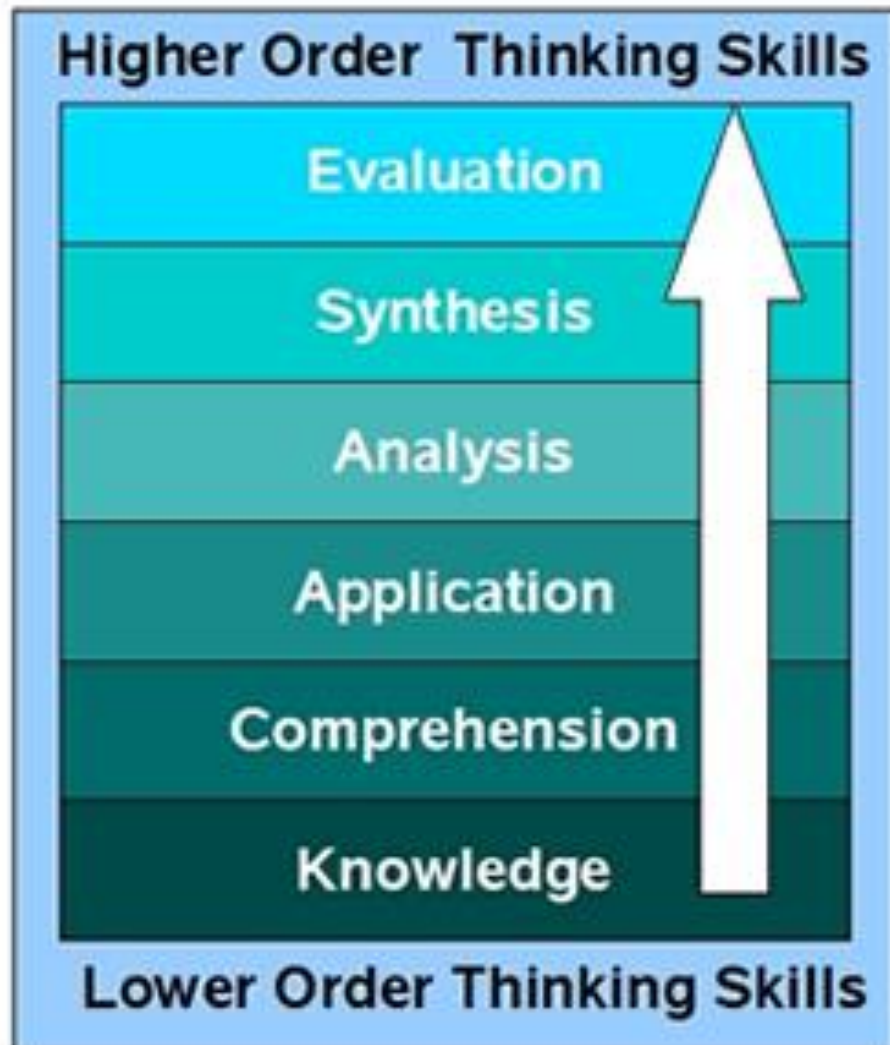
Established 2004

Important Work:

The Vision
of
Lorin
Anderson



Bloom's Taxonomy



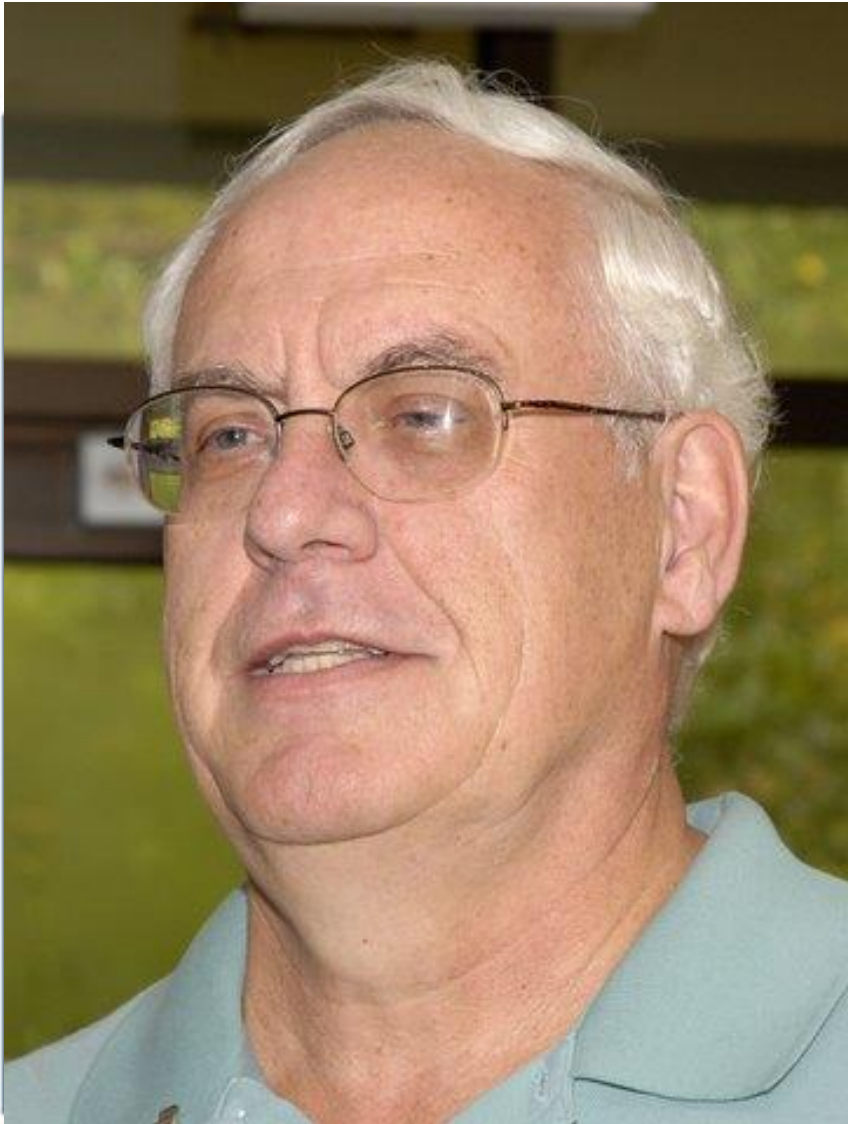


Dr. Bloom

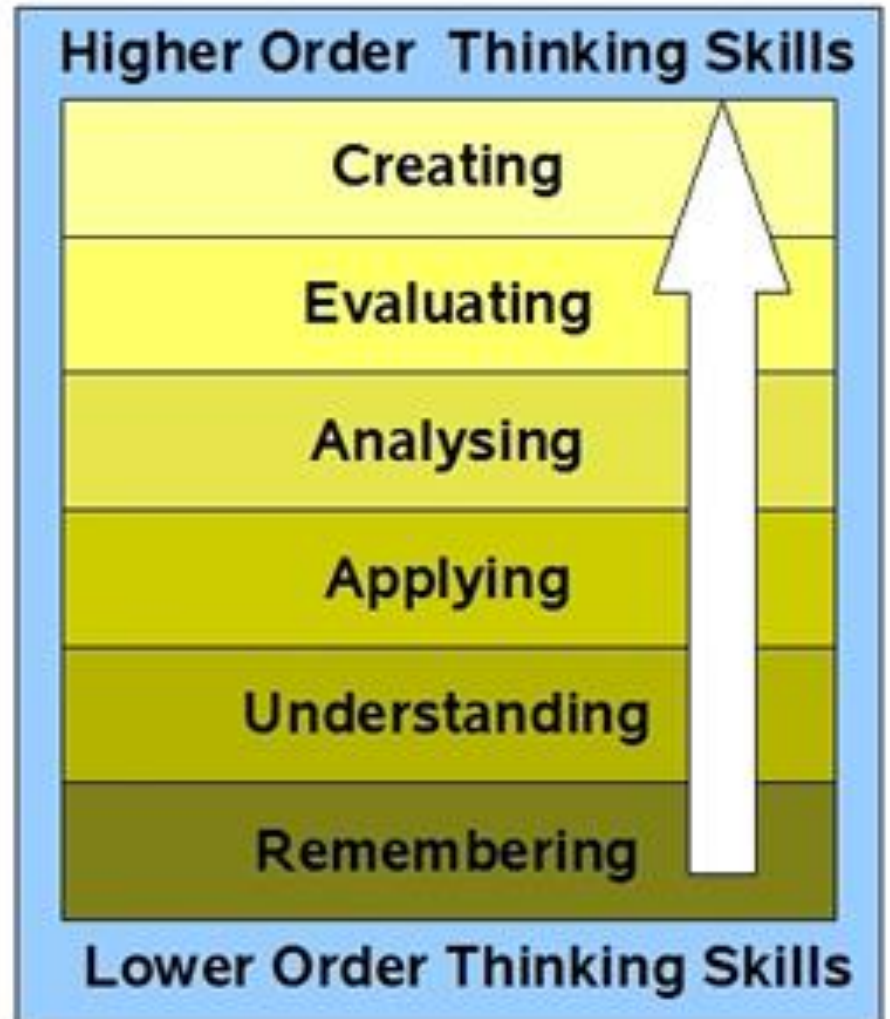
Dr. Anderson

Circa 1971

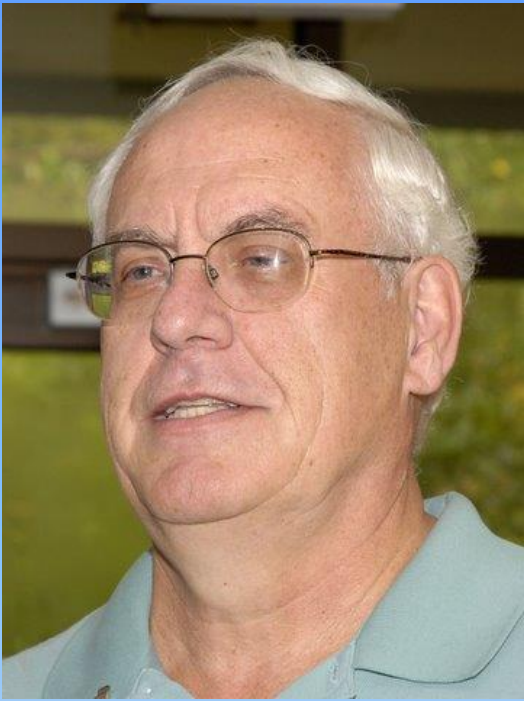
“RBT”



Bloom's Revised Taxonomy



The Vision of Lorin Anderson



Abbeville v. SC

1993-2005

Equitable Funding
for all South Carolina Schools

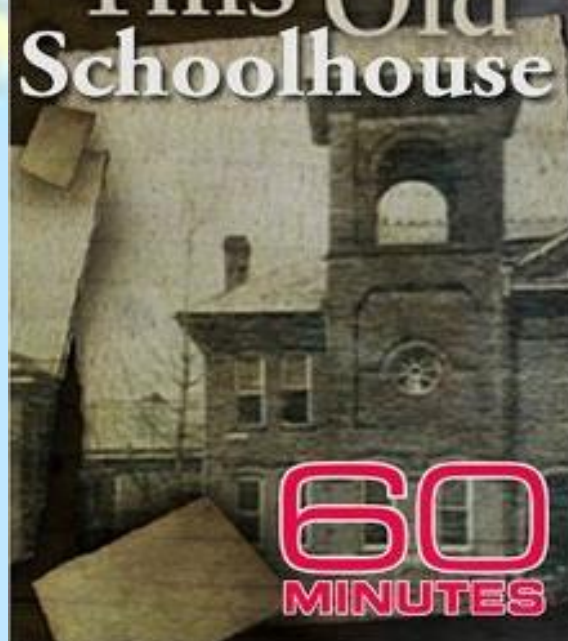


CORRIDOR OF SHAME

THE NEGLECT OF
SOUTH CAROLINA'S
RURAL SCHOOLS



This Old Schoolhouse



60
MINUTES

Plaintiff's Case



- Facilities
- Teacher Recruitment and Retention
- Student Achievement
- Pupil Transportation





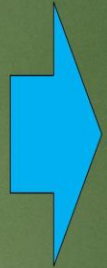
HUMAN CAPITAL
most important

I QUIT

Stress

Why Teachers Leave...

Next Career Steps



Why do teachers leave?

Issues at work leading to long term sick & then an agreement to leave
Ofsted, paperwork, levels, levels, levels
Behaviour and management by head teacher
Stress, bullying, too much direction
Bullying and intimidation by Head

Work/Life balance and intense scrutiny
The hours, the marking, the lack of promotion
overload of paperwork, stressful observation processes
No further career path

Stress

Lack of Creativity, innovation, trust in me from SLT despite great track record + endless paperwork/ observations + long hours

BULLYING

Bureaucracy, workload original reason for teaching lost amongst the ever changing politics

Politics & paperwork
bullying, workload, stress, administration,

Work in administration
Own business

Educational consultant
Vicar
Software engineer
Stay at home Parent
Translation
Nursing
Journalist
Programme management at an educational charity
Benefits advisor
Private tutoring
Librarian
Coaching and sports consultant
Sales
Unemployment
Respondent Locations

Therapist
Art Licensing
Business
Banking
police officer
Childcare
Freelance
Creative practitioner
Film Industry
Construction
Unemployment
Respondent Locations

UKED CHAT



ND CREATED BY

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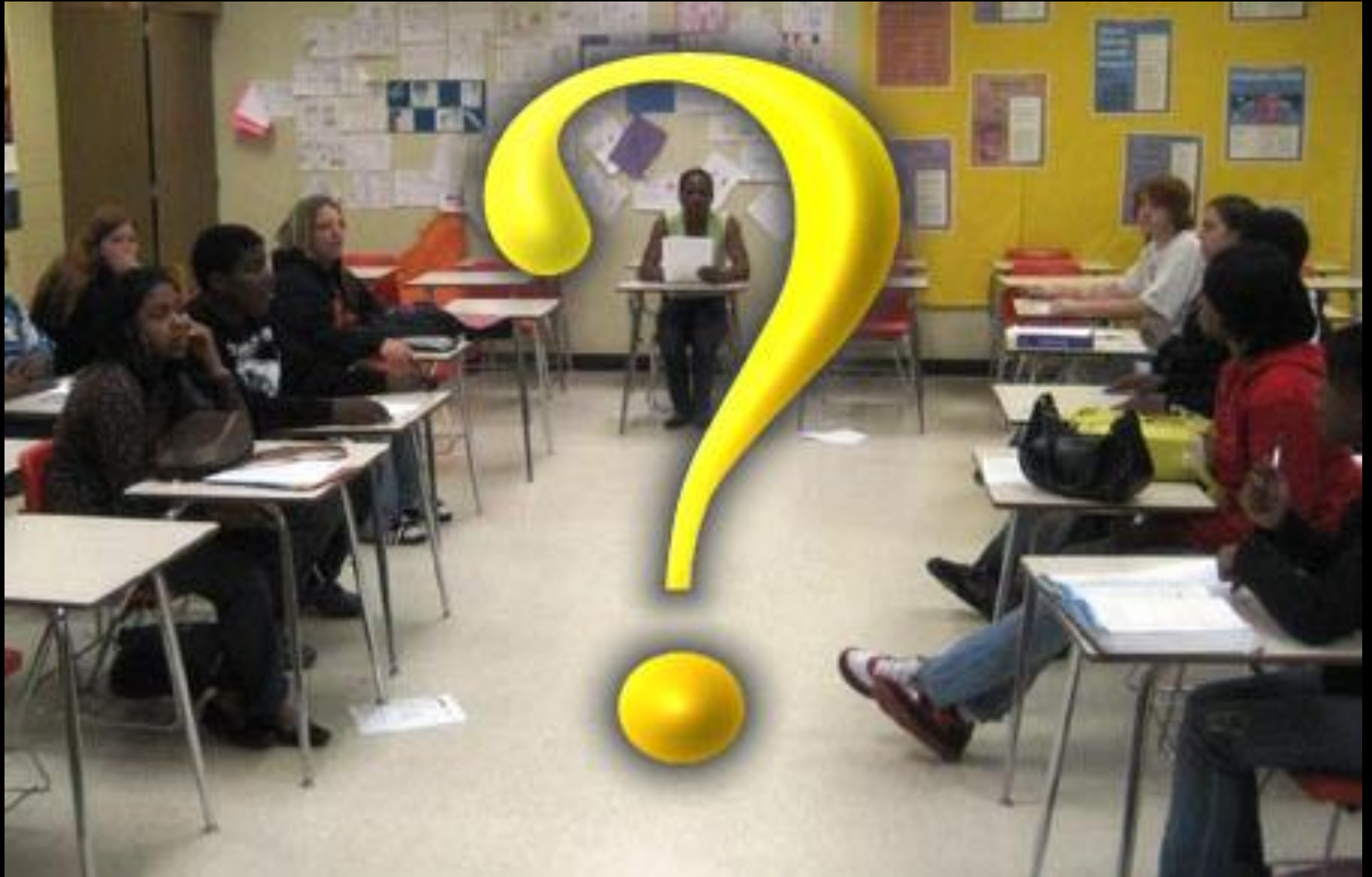
Credits & Full story via www.ukedchat.com

Does one size fit all?



Teacher Preparation Programs

Are special skills needed?



Does one size fit all?



2003

**Little popular discussion
about the effects of life in
poverty on school success.**





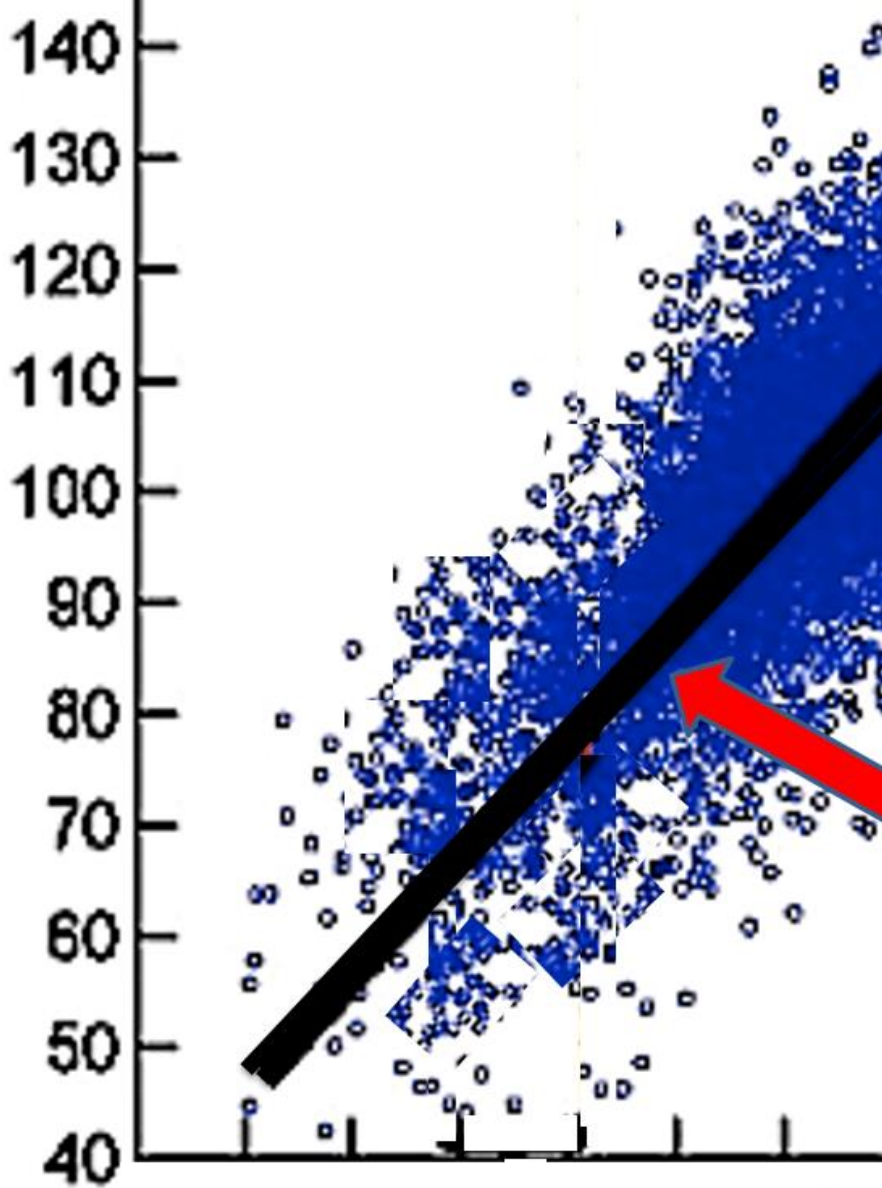
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*Center of Excellence
to Prepare Teachers of Children of Poverty*

Established 2004

ADAPTED FROM: Mehrabian, Albert, (2002) Beyond IQ: Broad-based measurement of individual success potential or "emotional intelligence". Genetic, Social, & General Psychology Monographs, May 126(2), 133-239.

Achievement

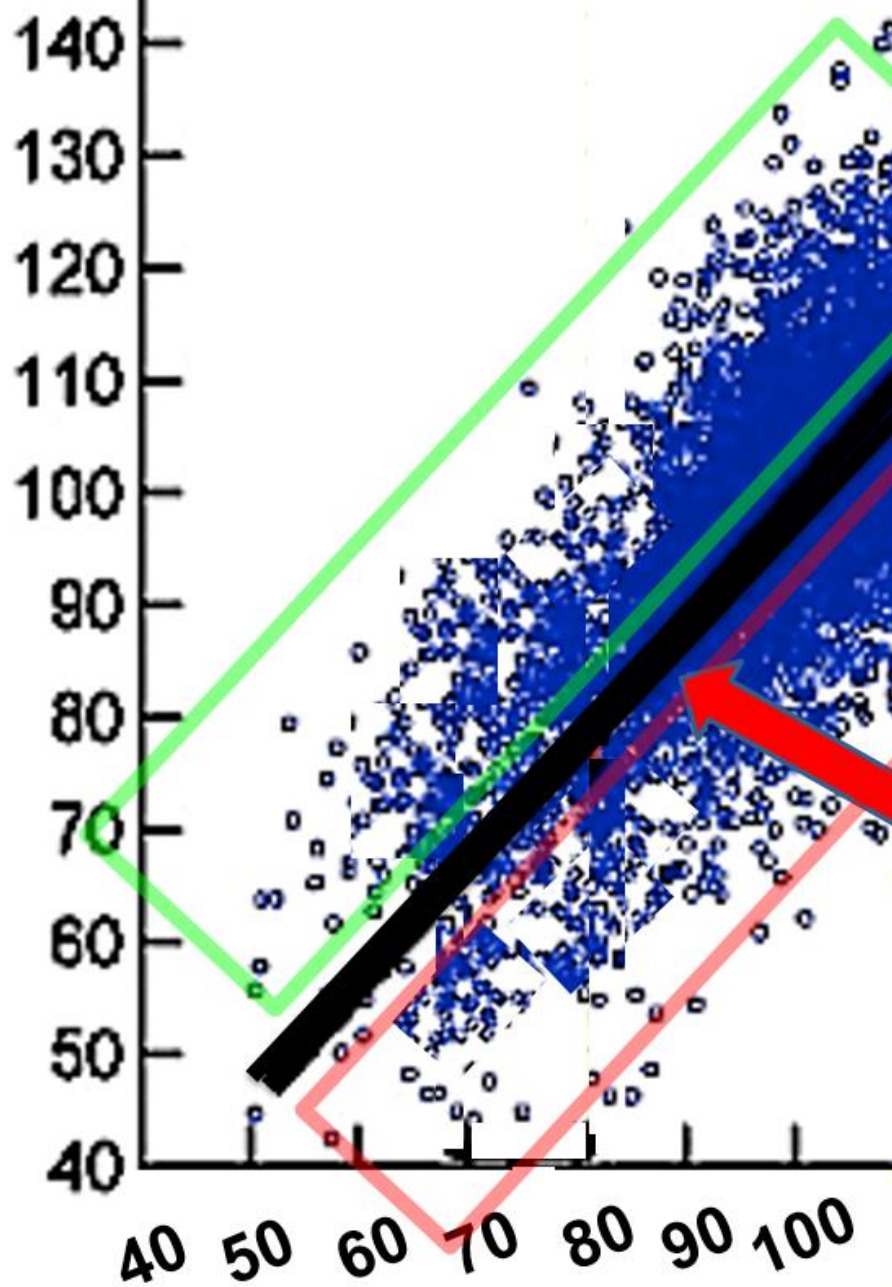


Expected Trajectory

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IQ

Achievement



Why did these students overperform?

Why did these students underperform?

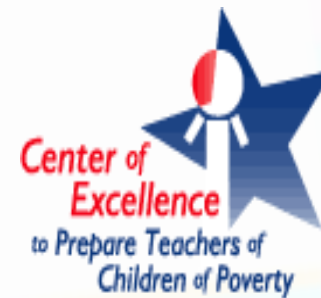
Expected Trajectory

IQ

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Challenges
and
Opportunities



What yields biggest returns?



BIG IMPACT!

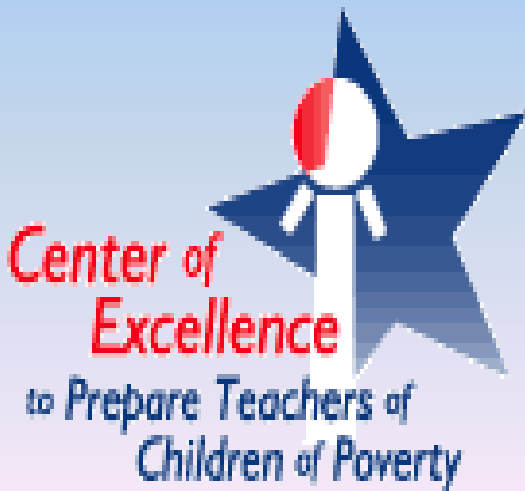


- Relationships
- Health-related supports
- Family and community partnerships
- Motivation
- Background knowledge
- Alignment
- Purposeful instruction
- Leadership

**8 Categories
of Strategies**

25

**Research-based,
High-yield Strategies**



**Center of
Excellence**
to Prepare Teachers of
Children of Poverty

HIGHLIGHTS:

- ❖ Life in poverty can have a significant negative impact on brain development and school achievement.
- ❖ But...brains can and do change every day.
- ❖ Schools can make the difference in how brains develop and how successful children of poverty can be.

★ How? **Develop high-quality, meaningful relationships.**

1. Build relationships.
2. Decrease stress.
3. Increase status.
4. Instill a sense of hope.
5. Use effective proactive guidance strategies.
6. Employ 'ME-oriented' best practices all day every day.
7. Understand the goals of student behaviors.

★ How? **Understand and support the health needs of students.**

8. Support health needs with enrichment maximizers.

★ How? **Cultivate family and community partnerships.**

9. Implement a results-driven partnership plan.

★ How? **Align classroom instruction and assessment with required, tested standards.**

10. Use the RBT or Webb's DOK to unpack standards and to align instruction.

★ How? **Motivate students' interest in learning.**

11. Motivate the unmotivated – Increase value and expectancy of success.
12. Promote a growth mindset rather than a fixed mindset.

★ How? **Build background knowledge.**

13. Build background knowledge in all content areas.
14. Cultivate prefrontal cortex skills.
15. Build memory trace.
16. Teach soft skills and cultivate healthy emotional brains.
17. Teach the hidden rules of school.

★ How? **Design and deliver purposeful instruction.**

18. Purposefully teach – know the goal and reach rigor through active, deep and engaging activities.
19. Explicitly teach specific skills—use formats, templates, models, and rubrics.
20. Make learning fun; capitalize on the power of dopamine.
21. Accommodate.
22. Include the ARTS.
23. Use (formative) feedback and data to drive instruction.
25. Hold high expectations for all students – *all means ALL!*

★ How? **Benefit from strong and supportive school leadership.**

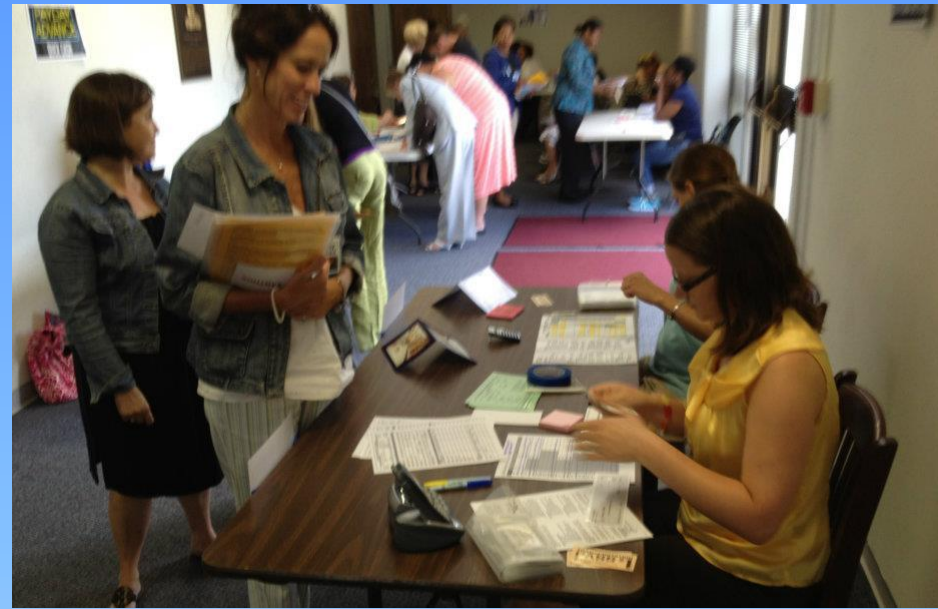
24. Be a leader (or a follower).

FINAL THOUGHTS:

- ❖ Kids from poverty (or any kids) are not stuck the way they are.
- ❖ Everyone who works with low SES kids needs to be on the same page.
- ❖ The brain is designed to change and to adapt to experiences.
- ❖ The experience and you'll change the brain.



Poverty Simulations



I have previously participated in a poverty simulation.

- True

- False

<http://playspent.org/>

Firefox

SPENT

playspent.org

Google

SPENT

Urban Ministries of Durham serves
over 6,000 people every year.
But you'd never need help, right?

PROVE IT

ACCEPT THE CHALLENGE

Teaching Children of Poverty Add On Certification

Two Tiers:

- **Endorsement**

(two courses – introduction & one other)

- **Add-On Certification**

(four courses)

Fieldwork required in all courses.



Legislatively Mandated – June 2012



My state offers specific coursework for teachers of children of poverty.

- True
- False



Summer Institutes



Center of Excellence
Research Consortium
COERC



Francis Marion University School of Education
to Prepare Teachers of Children of Poverty

Home About COE Activities Poverty Resources Partners National Network of Partnership Schools Registration

COE Research Consortium
Principles of Data Literacy
Speaker: Jan Morrison
Date: March 12, 2013
Time: 11:00 am - 2:00 pm
Location: Erin Dining Hall
Francis Marion University
Click [HERE](#) to register now!



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Center of Excellence to Prepare Teachers of Children of Poverty



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Education
A teacher affects eternity; he can never tell where his influence stops. —Henry Adams

About



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Center of Excellence to Prepare Teachers of Children of Poverty

Center of Excellence-High Poverty Schools

The FMU Center of Excellence to Prepare Teachers of Children of Poverty works to solve problems inherent in high poverty schools by developing the expertise of teachers and school leaders.

Florence, South Carolina



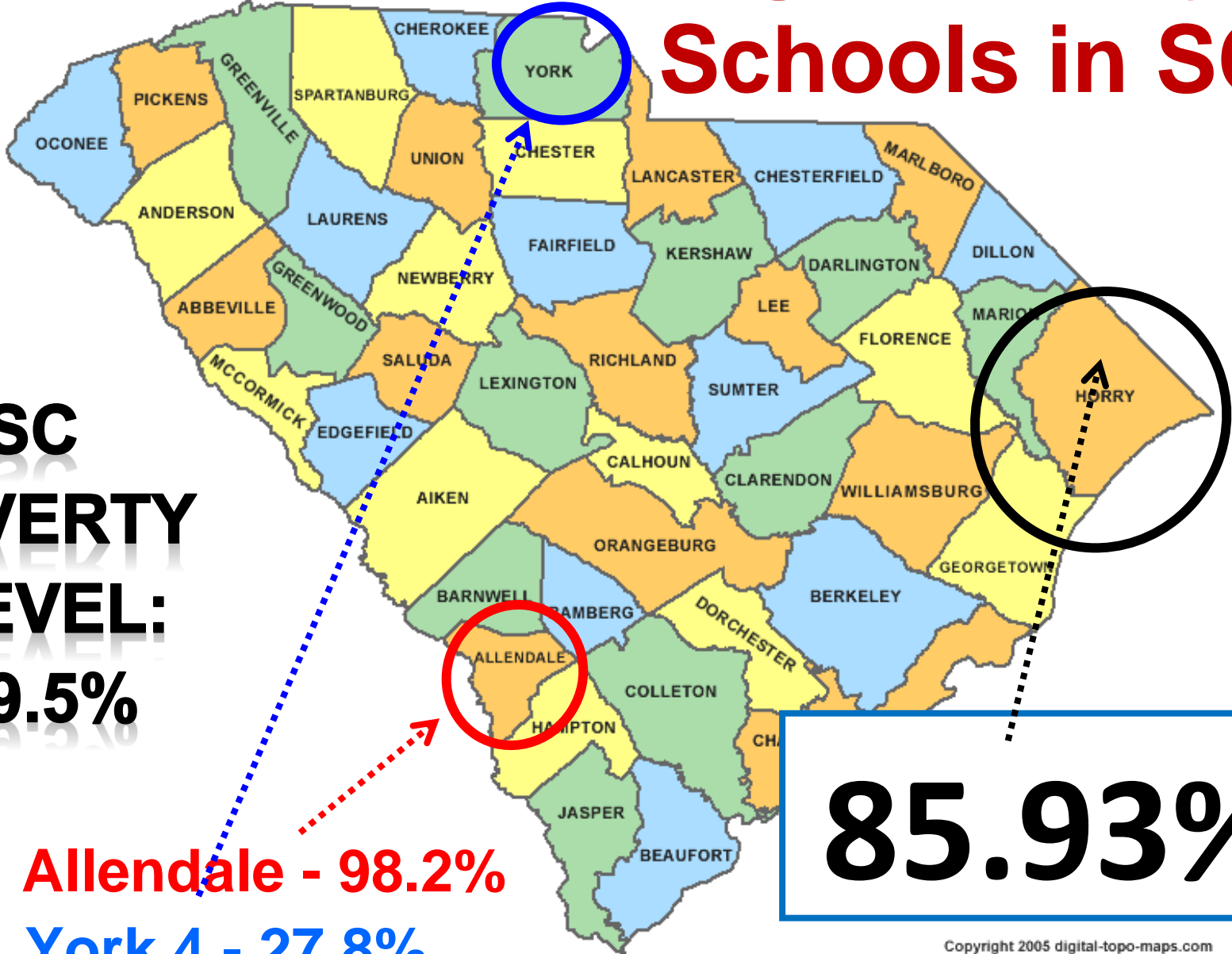
Center of Excellence to Prepare Teachers of Children of Poverty





Outreach to Districts and Schools

High Poverty Schools in SC



**SC
POVERTY
LEVEL:
69.5%**

85.93%

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F

***ESEA
Waiver***

POVERTY



What yields biggest returns?



What yields biggest returns?

IMPLEMENTATION OF

Research-based strategies

STUDIED THROUGH

Sustained professional learning

USING AN

Action research model

GUIDED BY

Unrelenting school leaders

Program Format

- **Extended
Introductory Session**
- **8 Monthly Sessions**

What yields biggest returns?

IMPLEMENTATION OF

Research-based strategies

STUDIED THROUGH

Sustained professional learning

USING AN

Action research model

GUIDED BY

Unrelenting school leaders

Instructional staff will grow in their understanding that poverty can matter, and teachers and schools can matter more.



Project Goal

THRESHOLD

INDEX

INDEX

POVERTY

INDICATOR

MARKER

RATE

LEVEL

Teachers generally are aware of the free/reduced price eligibility figures.

• True

• False

WEIGHTED AVERAGE POVERTY THRESHOLDS FOR 2013

Size of Family Unit

Estimated Threshold

1 person

\$11,888

2 people

\$15,142

3 people

\$18,552

4 people

\$23,834

5 people

\$28,265

6 people

\$31,925

7 people

\$36,384

8 people

\$40,484

9 people or more

\$48,065

High Income

Middle Income

**Poverty
and
Low Income**

Low Income Line

Up to 200%
above
Poverty Line

Low Income

Poverty Line

\$ 11,888
*for 1 person
household*

Poverty

2014-15 Free & Reduced Lunch Eligibility

The federal income eligibility guidelines for July 1, 2014 through June 30, 2015 are listed below:

HOUSEHOLD SIZE	ANNUAL		MONTHLY		TWICE PER MONTH		EVERY TWO WEEKS		WEEKLY	
	Free	Reduced Price	Free	Reduced Price	Free	Reduced Price	Free	Reduced Price	Free	Reduced Price
1	15,171	21,590	1,265	1,800	633	900	584	831	292	416
2	20,449	29,101	1,705	2,426	853	1,213	787	1,120	394	560
3	25,727	36,612	2,144	3,051	1,072	1,526	990	1,409	495	705
4	31,005	44,123	2,584	3,677	1,292	1,839	1,193	1,698	597	849
5	36,283	51,634	3,024	4,303	1,512	2,152	1,396	1,986	698	993
6	41,561	59,145	3,464	4,929	1,732	2,465	1,599	2,275	800	1,138
7	46,839	66,656	3,904	5,555	1,952	2,778	1,802	2,564	901	1,282
8	52,117	74,167	4,344	6,181	2,172	3,091	2,005	2,853	1,003	1,427
For each additional household member:										
Add:	5,278	7,511	440	626	220	313	203	289	102	145

Search "SAIPE"

[Census.gov](#) > [People and Households](#) > [SAIPE Main](#) > [SAIPE Data](#) > Interactive SAIPE Data and Mapping Tool

Small Area Income and Poverty Estimates

- Main
- About SAIPE
- Data
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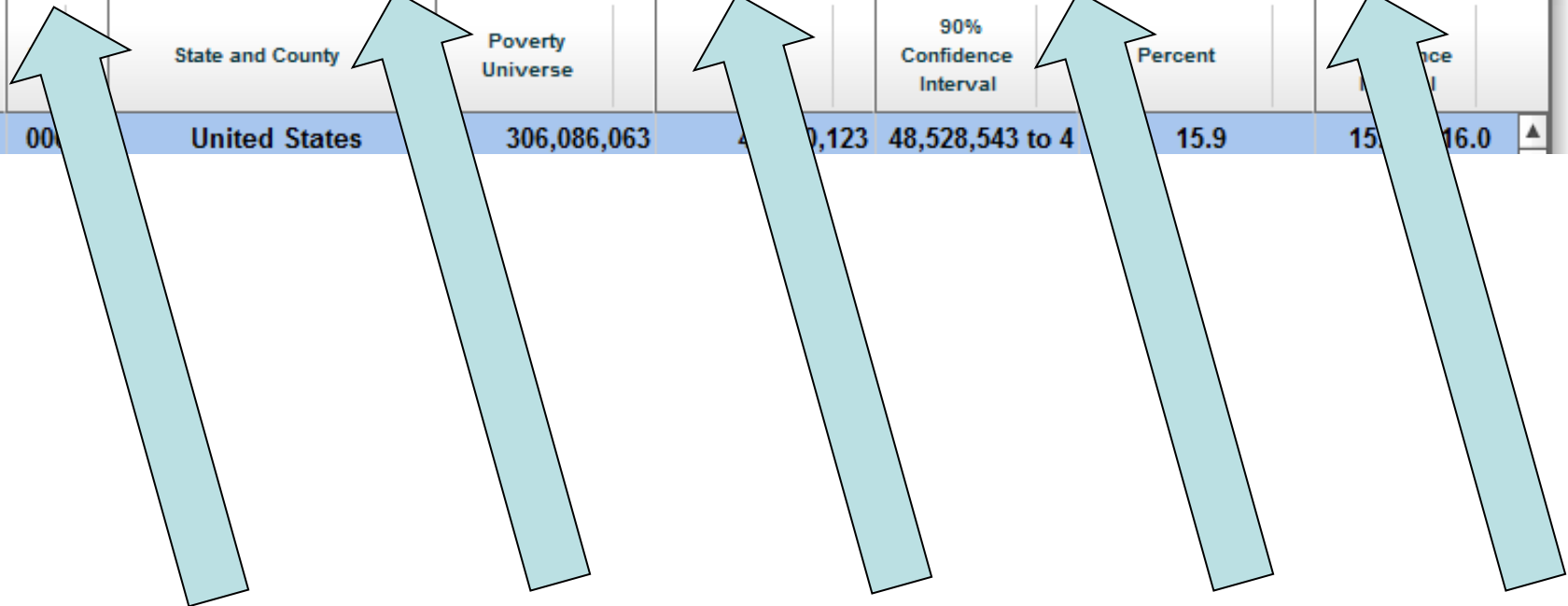
Small Area Income and Poverty Estimates

- State And County
- School Districts
- Mapping
- Trends
- JPG
- Printer
- CSV
- PDF
- Share
- Map
- Help

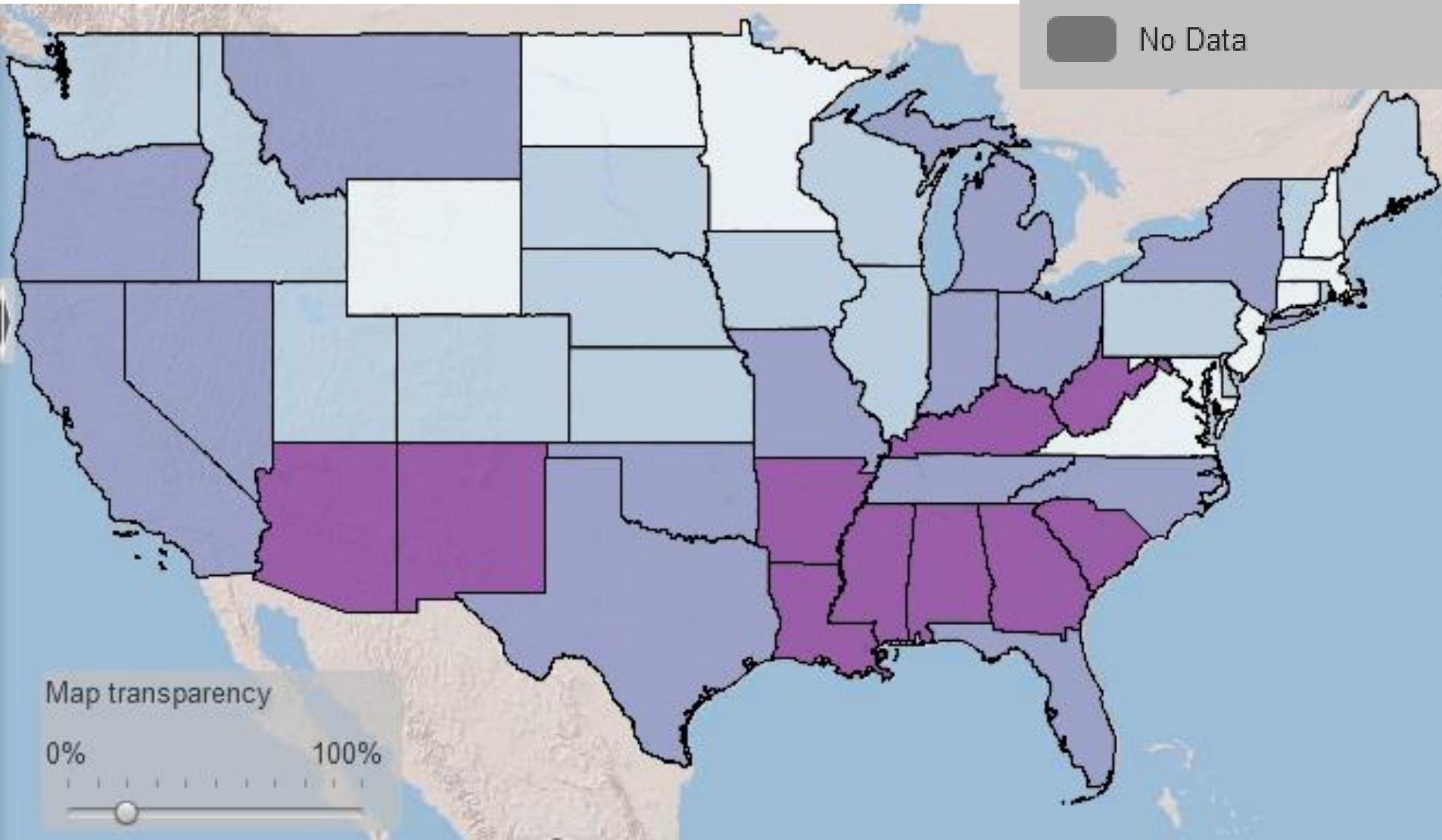
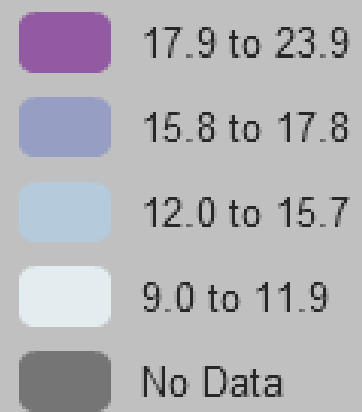
- State And County
- School Districts
- Mapping
- Trends
- JPG
- Printer
- CSV
- PDF
- Share
- Map
- Help

- All Ages in Poverty
- Under Age 18 in Poverty
- Ages 5-17 in Families in Poverty
- Under Age 5 in Poverty
- Median Household Income, in ...

Year	State and County	Poverty Universe	90% Confidence Interval	Percent	Percent
2012	00 United States	306,086,063	48,528,543 to 4	15.9	15.9 to 16.0



Percent in Poverty All Ages, by State (2013)

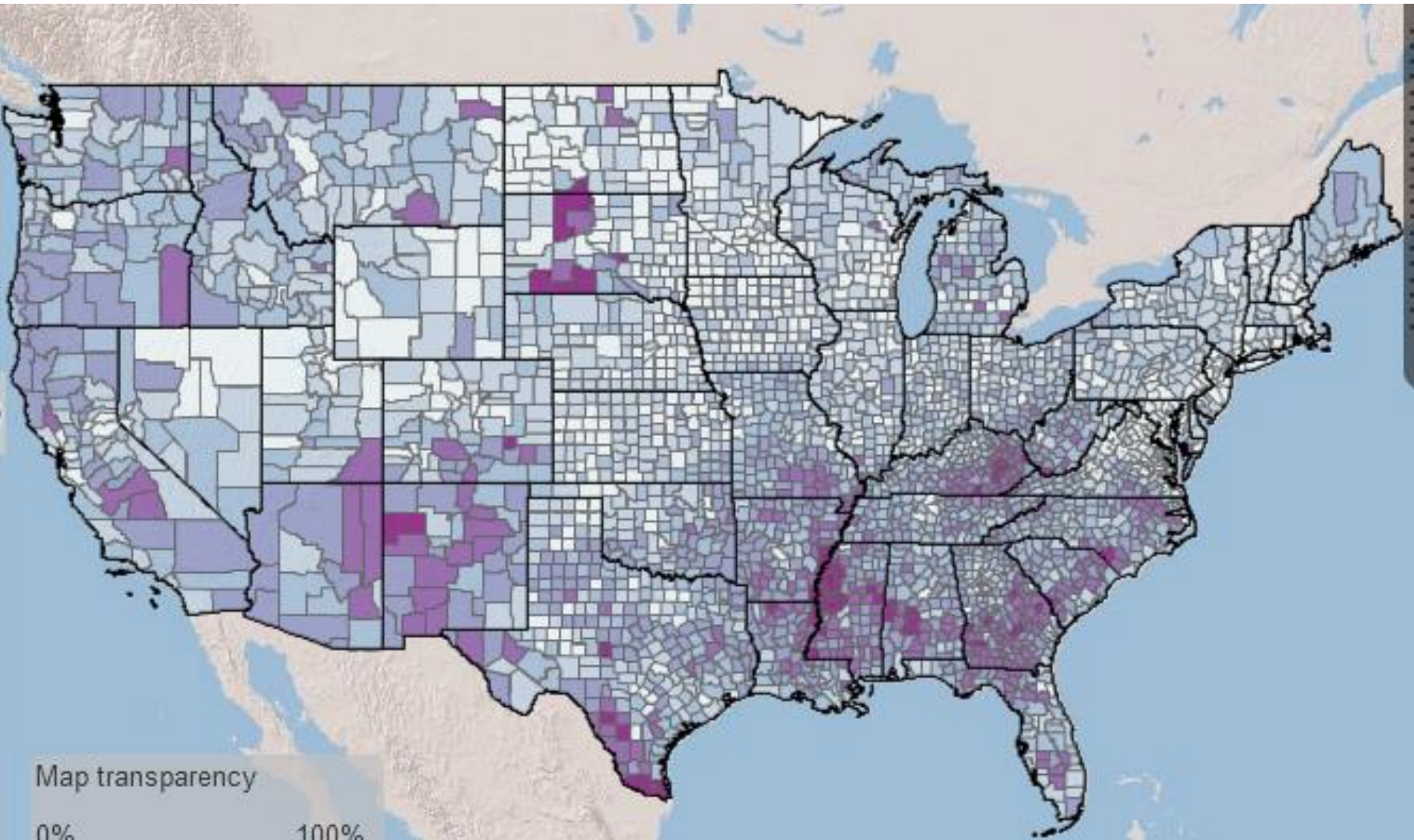


Map transparency

0% 100%

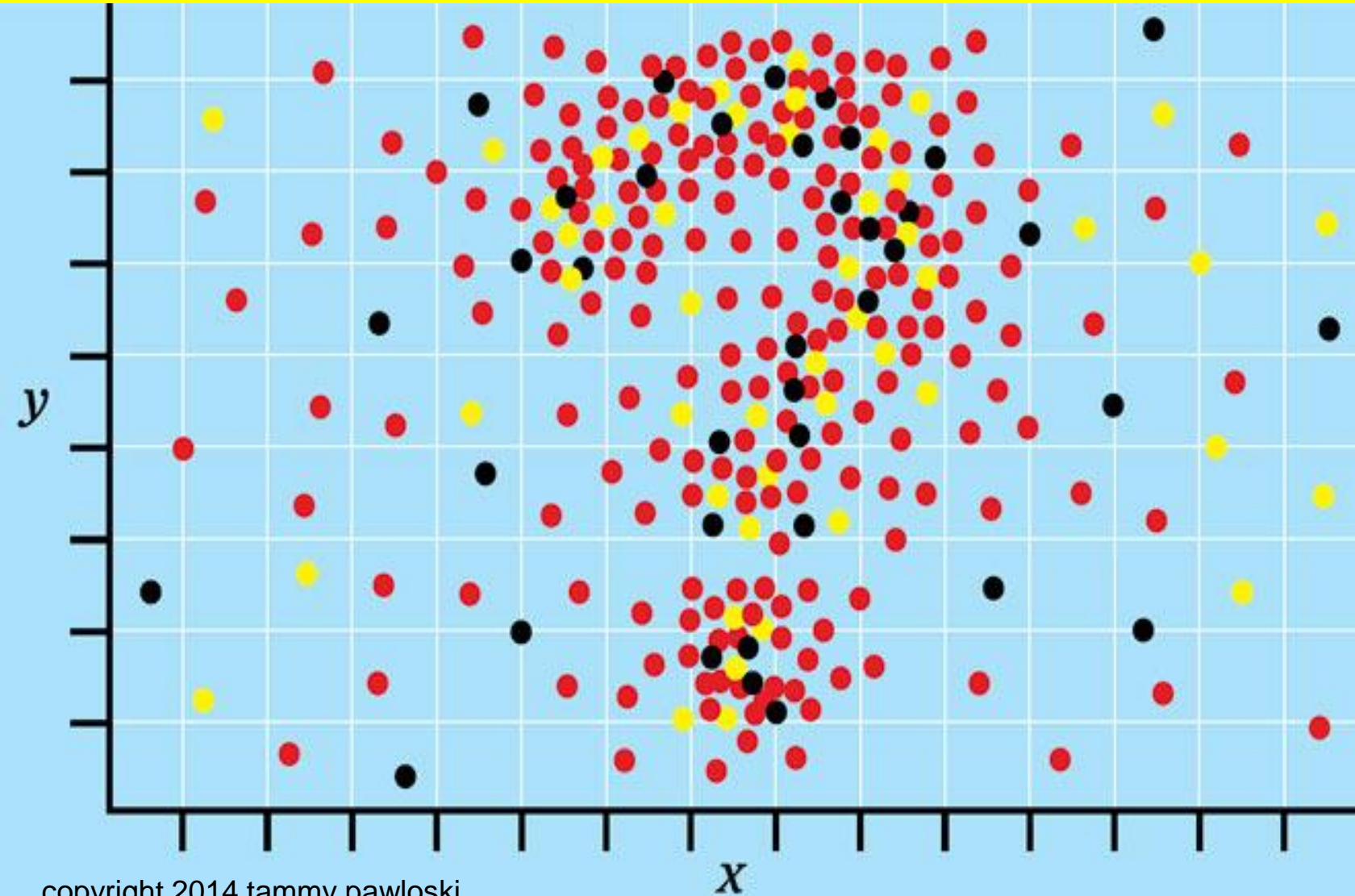


Percent in Poverty - All Ages, by County



Statistically, why does

poverty matter?



Poverty and Education: Finding the Way Forward

A blurred background image showing a group of people walking in a crowd, likely in an educational or public setting. The image is out of focus, emphasizing movement and a busy environment.

ETS Report

FIGURE 1

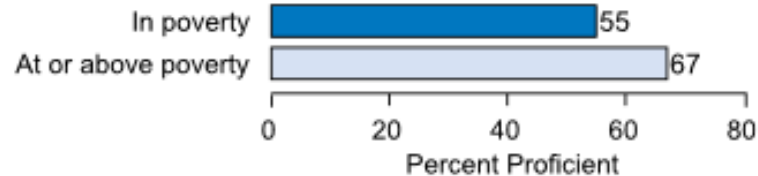
Percentage of Children Demonstrating Proficiency in Various Cognitive Skills by Poverty Status and Age, 2003–04 and 2005–06

2-Year-Olds

Listening Comprehension



Expressive Vocabulary

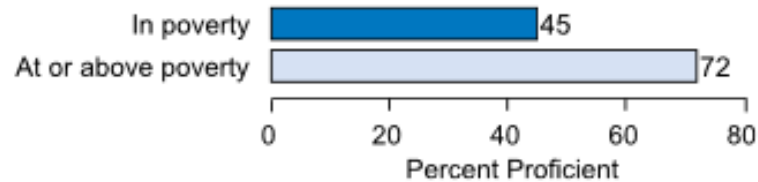


4-Year-Olds

Letter Recognition



Numbers and Shapes



Source: NCES (2009a). Data are from the Early Childhood Longitudinal Study, Birth Cohort.

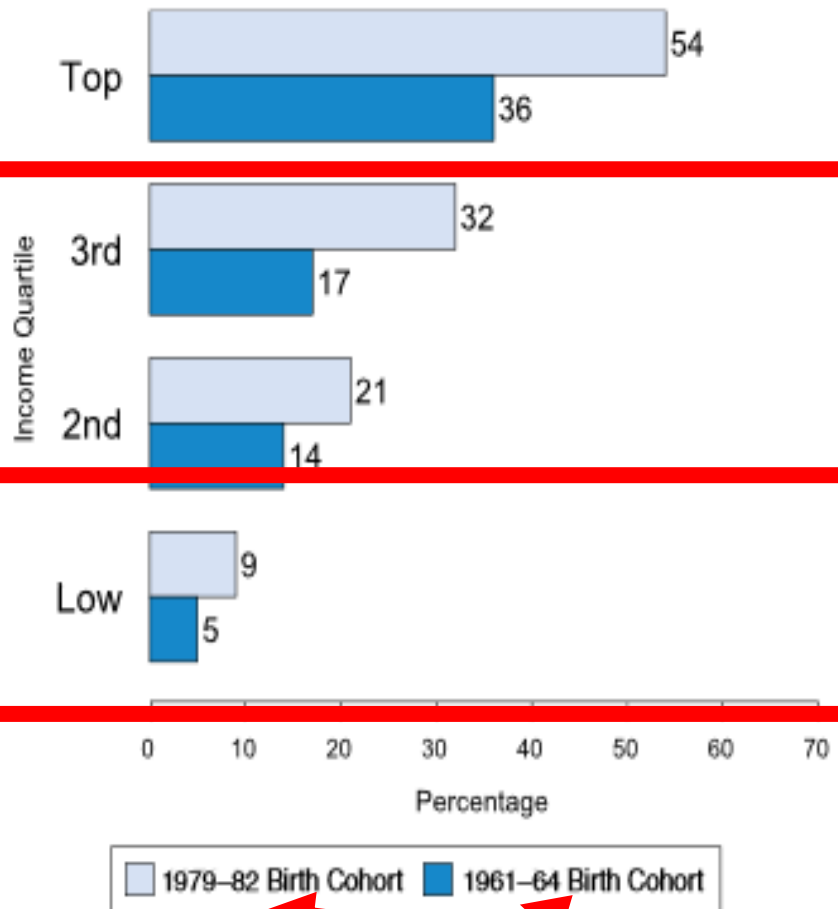
**Highest Income
Quartile (2 cohorts)**

**Lowest Income
Quartile (2 cohorts)**

**College
Completers**

FIGURE 4

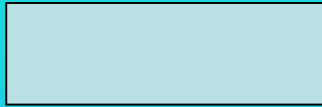
**Percentage of Students Completing College,
by Income Quartile and Birth Cohort**



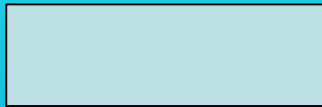
Source: Bailey and Dynarski (2011).

two cohorts

Even when kids are the same on these:



- *ethnic background*



- *level of mother's education*

- *family structure*

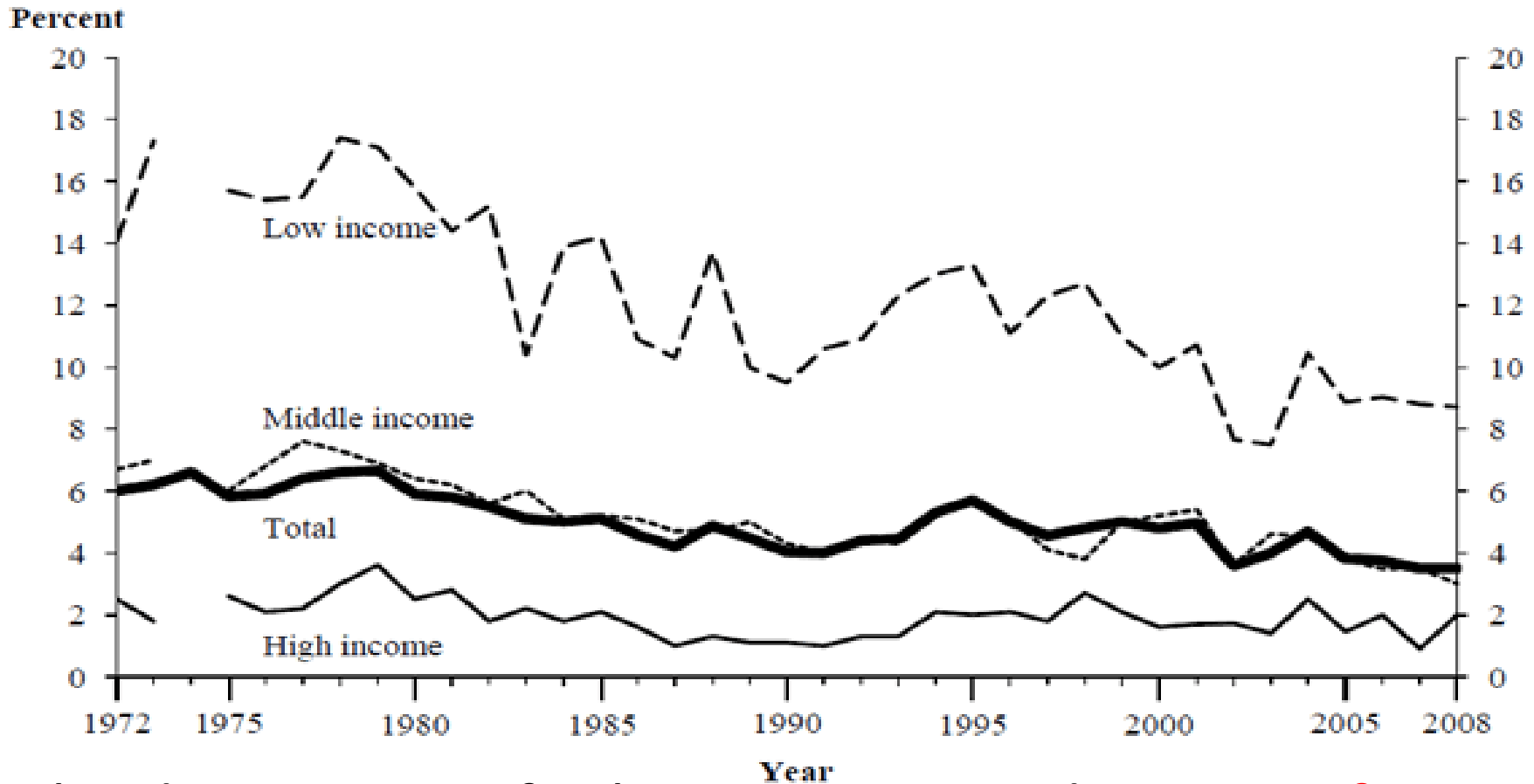
Children of poverty are less than half as likely to do well in school!

EDUCATIONAL IMPACT

Children living in poverty are more likely to:

- **fall behind** their classmates in school,
- be assigned **to lower ‘tracks’** in education,
- be **retained** in grade,
- be **labeled as ‘problem’** students,
- be absent, truant, and to **drop out** of school altogether,
- and—over time—earn **lower scores** in standardized tests of knowledge and achievement.

The Income-Dropout Connection



The dropout rate for low-income students was **five times greater** than their high-income counterparts—7.4 percent compared with 1.4 percent.

Poverty is more influential than gestational exposure to cocaine!



Betancourt, L. M., et. al. (2011). Adolescents with and without gestational cocaine exposure: Longitudinal analysis of inhibitory control, memory and receptive language. *Neurotoxicol Teratol*, 33/1, 36-46.

Income is the single strongest correlate to academic success in the US, as measured on standardized tests such as the SAT.

Income Range	Cr. Reading	Math	Writing	Total
\$ 0 – \$20,000	435	462	429	1326
\$20,000 – \$40,000	465	482	455	1402
\$40,000 – \$60,000	487	500	474	1461
\$60,000 – \$80,000	500	511	486	1497
\$80,000 – \$100,000	512	524	499	1535
\$100,000 – \$120,000	522	536	511	1569
\$120,000 – \$140,000	526	540	515	1581
\$140,000 – \$160,000	533	548	523	1604
\$160,000 – \$200,000	539	555	531	1625
More than \$200,000	565	586	563	1714

Calculated by FairTest from: College Board, College-Bound Seniors 2013: Total Group Profile Report and College-Bound Seniors 2006: Total Group Profile Report

<http://www.washingtonpost.com/blogs/answer-sheet/wp/2013/10/09/the-bottom-line-on-sat-scores-in-one-chart/>

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Center of Excellence
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Challenges
and
Opportunities



MYTHS

and

MISCONCEPTIONS

MYTH #1

Poverty
DOES NOT
Matter!

Teachers clearly understand why poverty can matter.

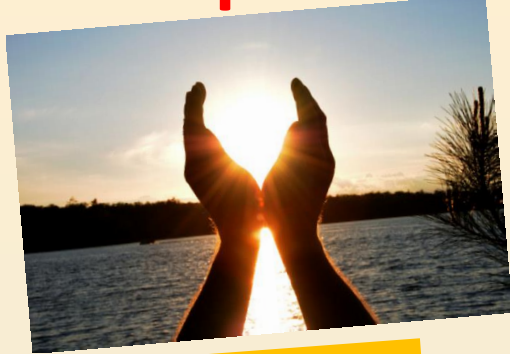
1. A few understand
2. Some understand
3. Many understand
4. Most understand

Support/Role Models



Financial

Spiritual



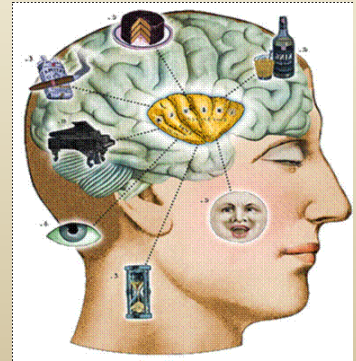
POVERTY
The extent to which an individual does without resources that help one to be successful.

Physical



Emotional

Cognitive



MYTH #2

There is

NO HOPE

for

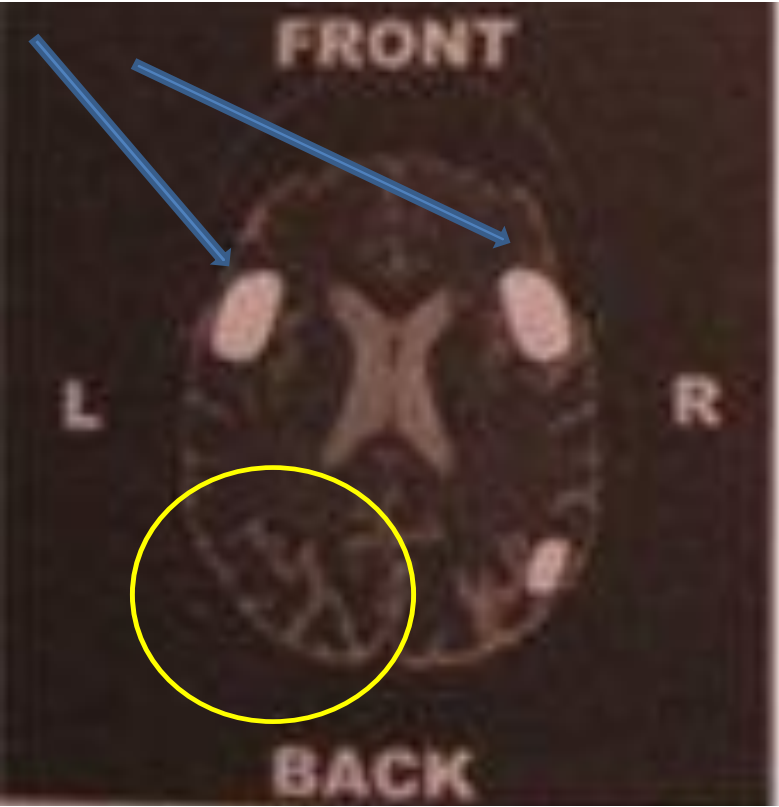
kids of poverty!

How many educators generally believe that there is no hope for children of poverty?

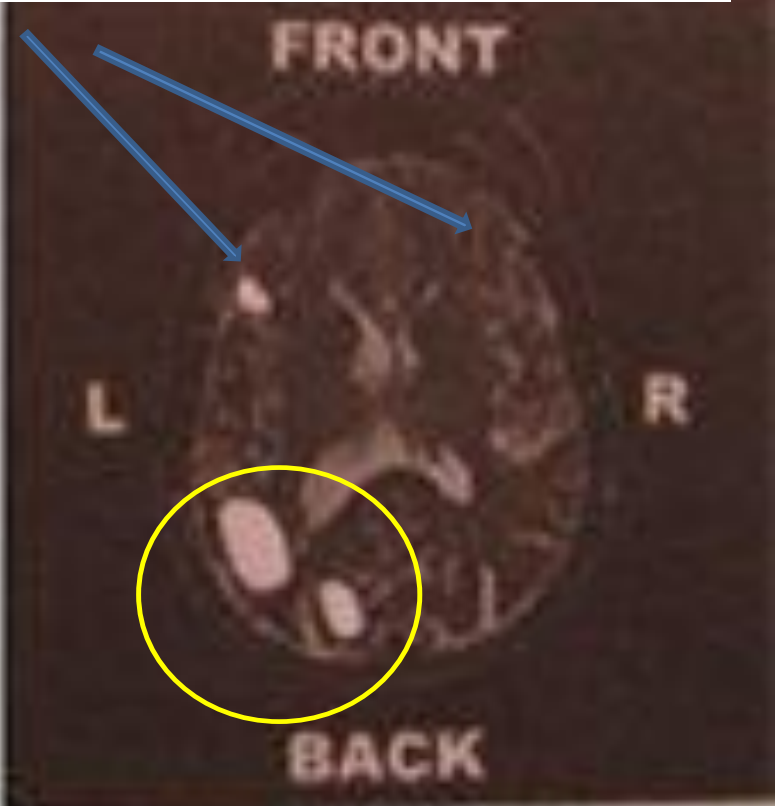
- 1. A few**
- 2. Some**
- 3. Many**
- 4. Most**

How do we know?

functional Magnetic Resonance Images (fMRI)



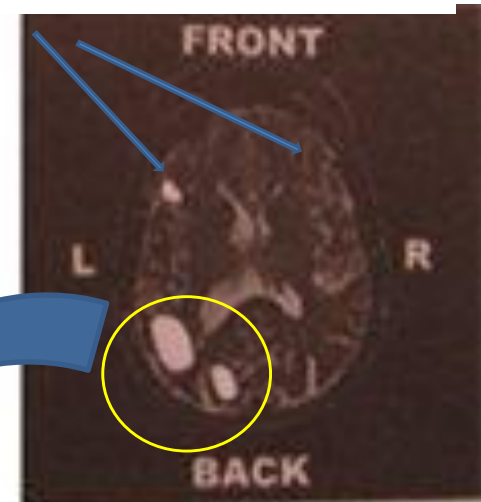
Dyslexic Reader



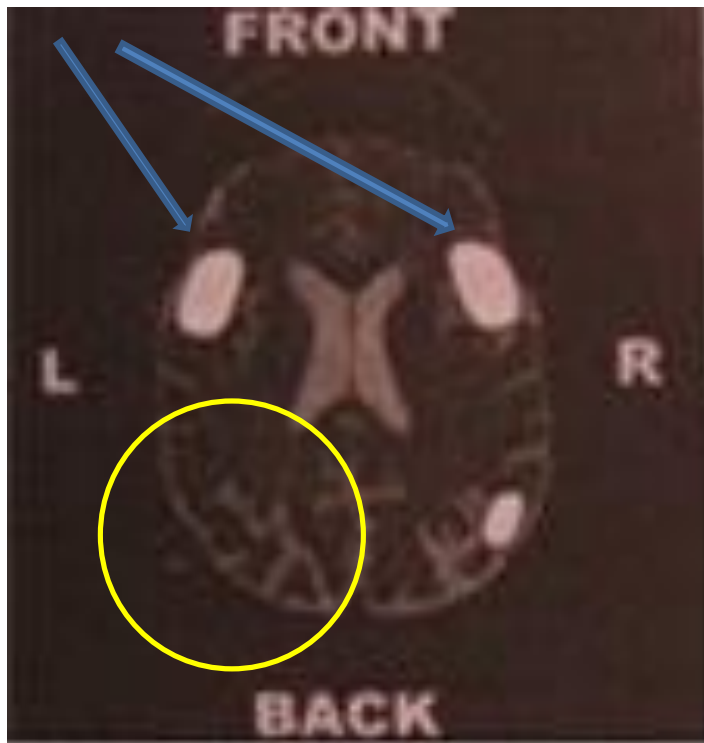
Good Reader

Shaywitz, S. (2003)

Changes in Brains of Struggling Readers



Good Reader



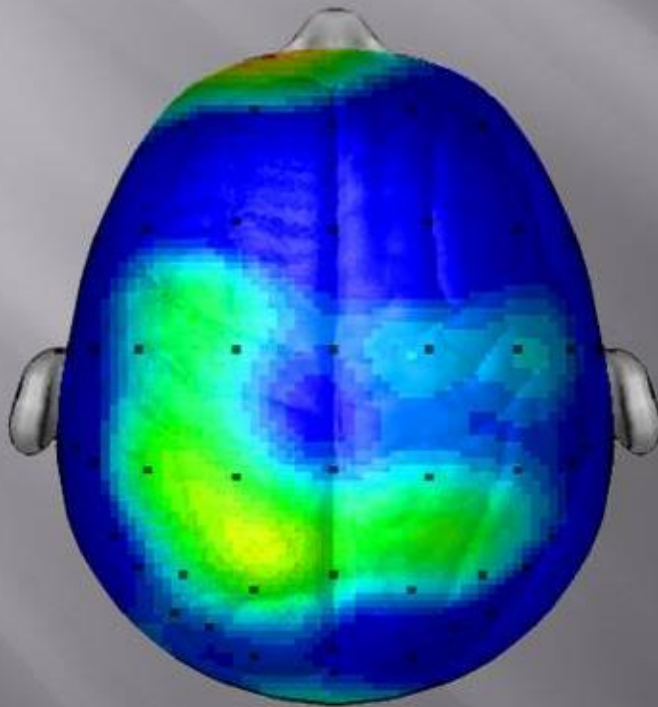
Before Intervention



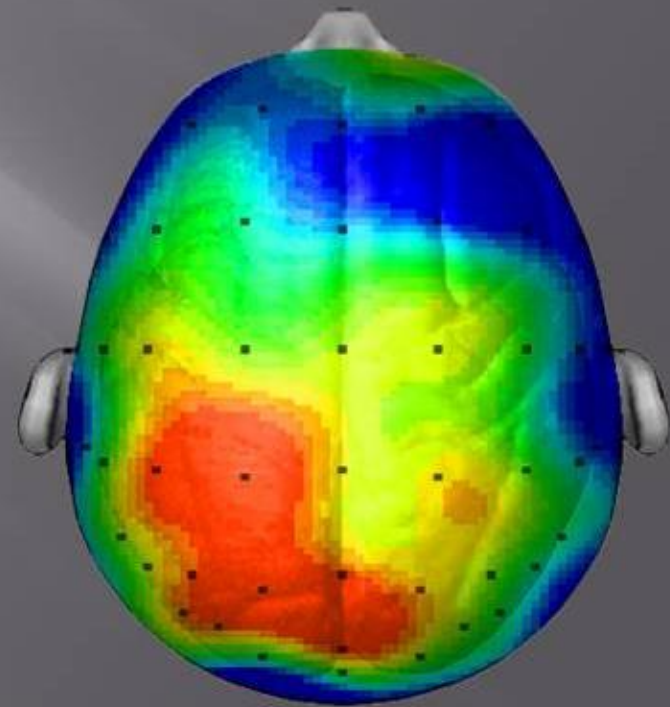
After Intervention

Physical activity changes the brain.

BRAIN AFTER SITTING
QUIETLY



BRAIN AFTER 20 MINUTE
WALK



Research/scan compliments of Dr. Chuck Hillman University of Illinois

Turns out....

Dr. Anderson was right!



HUMAN CAPITAL
most important

What does NOT matter:

Not which school you attend

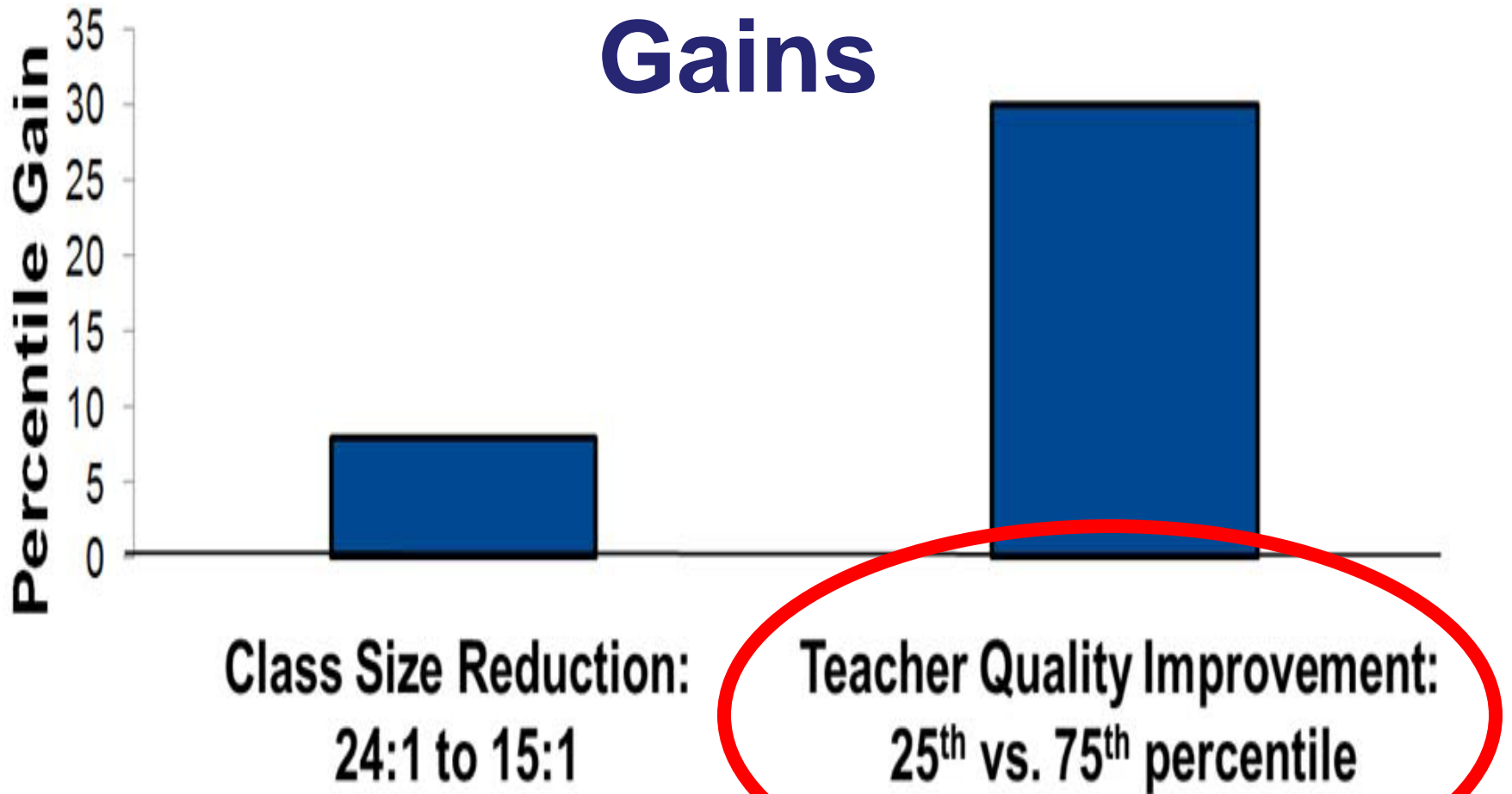
Not between class grouping strategy

Not within-class grouping strategy

BUT....

***IT DOES MATTER WHAT CLASSROOM
YOU ARE IN!***

Annual Student Achievement Gains



2 years with an

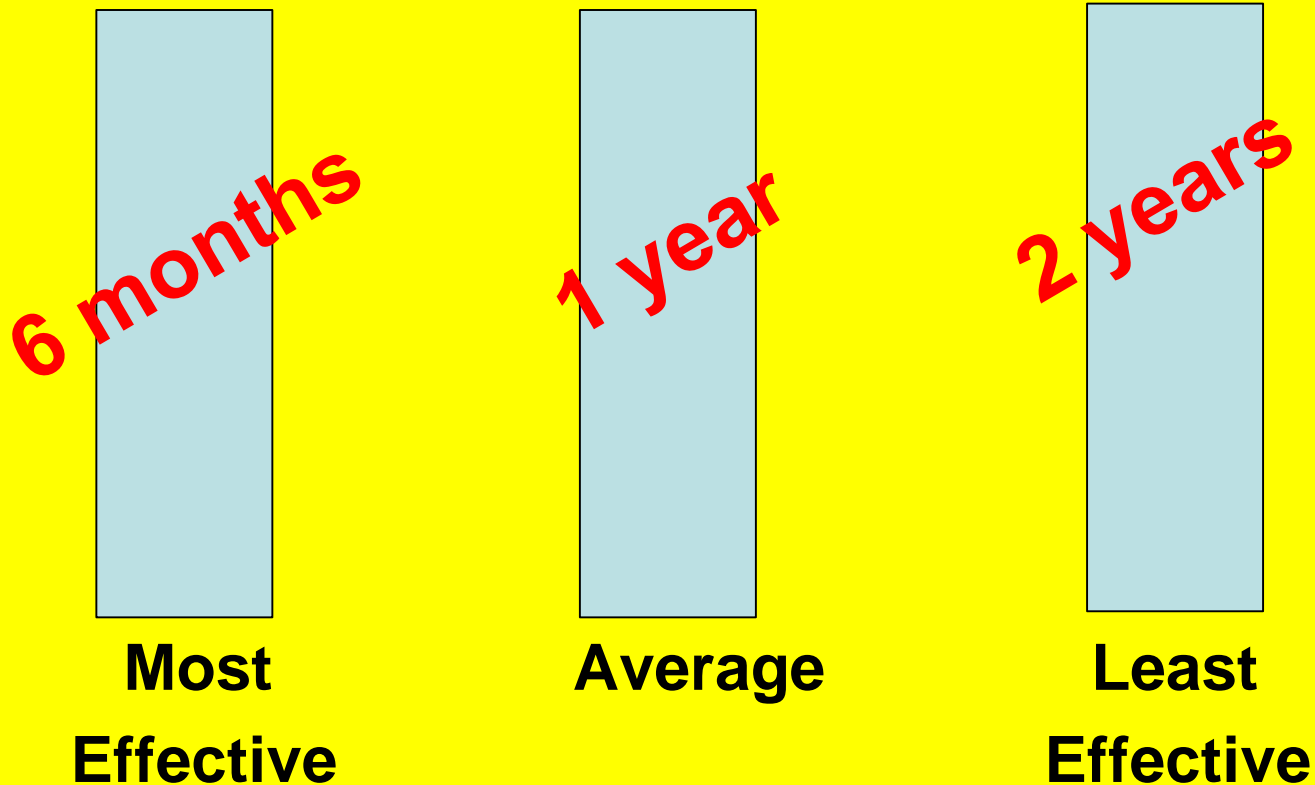
EFFECTIVE
teacher

cannot remediate achievement loss

1 year with a

POOR
teacher

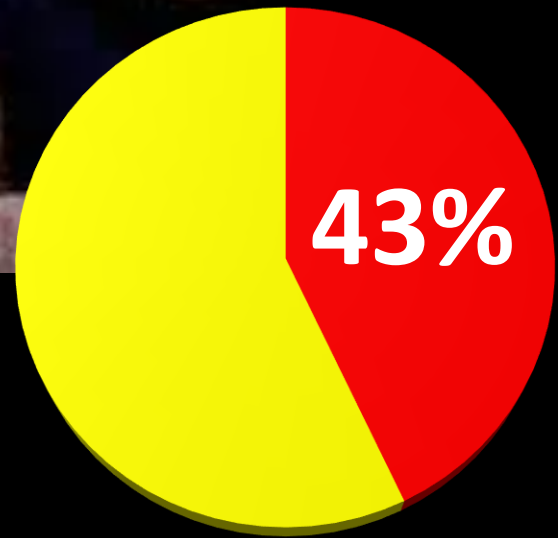
Within a group of 50 teachers, the time required to accomplish the same amount of learning varies:



And, students from disadvantaged backgrounds learn at the same rate as advantaged students with effective teachers!

How much
do teachers
matter?

430%



As much as **43%** of the student's academic performance can be traced to the **quality of the teacher** in the classroom.

How many teachers generally believe in their own power to significantly change a student's trajectory?

- 1. A few**
- 2. Some**
- 3. Many**
- 4. Most**

Instructional staff will grow in their understanding of ways to capitalize on new information from neuroscience to create shifts.

Project Goal



What Actually Changes in Our Brains?

STRUCTURAL

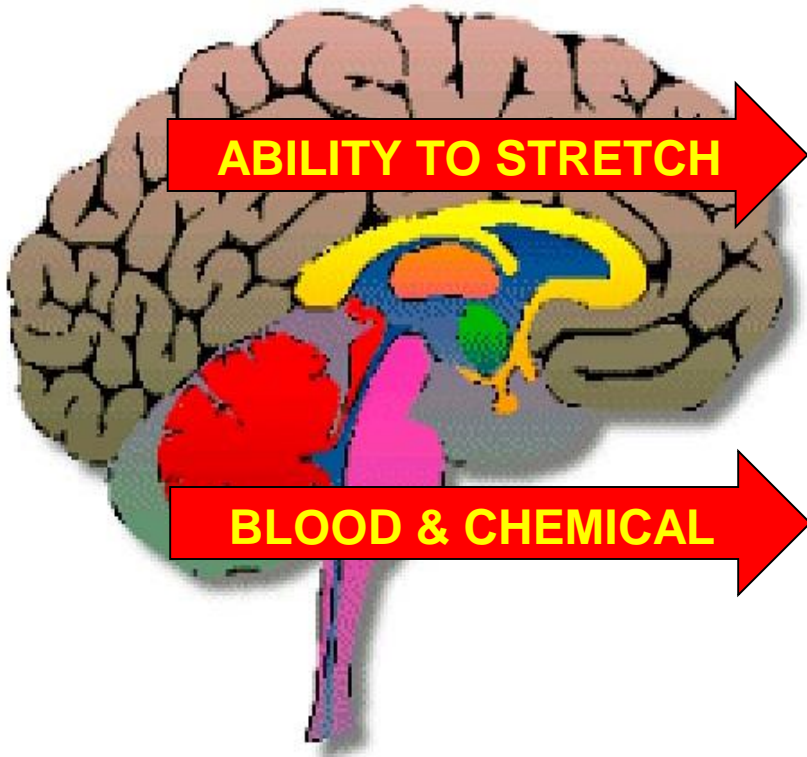
neurogenesis
cell size
cell connectivity
new cell survival
gene expression

ABILITY TO STRETCH

neural plasticity

BLOOD & CHEMICAL

chemical levels
activity distribution
blood flow
glucose metabolism
neural growth factors



Brain Change



Distress
Inactivity
Boredom
Depression

Poor Nutrition
Isolation
Low status

REDUCERS

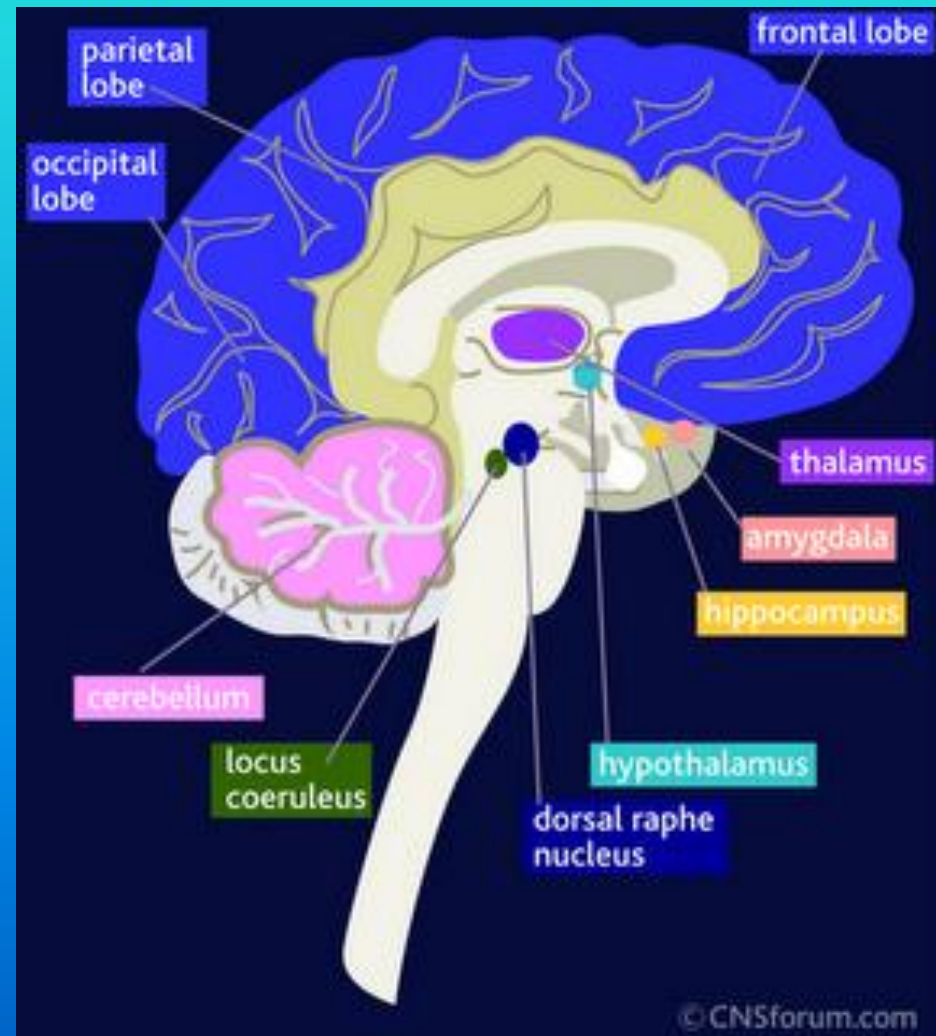
Exercise
Prosocial Contact
Complex Environments

New Learning
Nutrition
Low Stress

ENHANCERS

The 5 Most Likely Brain Disorders for Low SES Kids

1. Stress
2. AD/HD (and ADD)
3. Learning delays
4. Attachment
5. Dyslexia



Jensen, E. , 2010.

- Instructional staff will grow in their understanding of the importance of relationships as a mitigating factor for under-resourced students.
- Teachers will build stronger and more appropriate relationships with students that lead to greater student and teacher investment in the learning process.

Project Goal



HIGHLIGHTS:

- ❖ Life in poverty can have a significant negative impact on brain development and school achievement.
- ❖ But...brains can and do change every day.
- ❖ Schools can make the difference in how brains develop and how successful children of poverty can be.

★ How? **Develop high-quality, meaningful relationships.**

1. Build relationships.
2. Decrease stress.
3. Increase status.
4. Instill a sense of hope.
5. Use effective proactive guidance strategies.
6. Employ 'ME-oriented' best practices all day every day.
7. Understand the goals of student behaviors.

★ How? **Understand and support the health needs of students.**

8. Support health needs with enrichment maximizers.

★ How? **Cultivate family and community partnerships.**

9. Implement a results-driven partnership plan.

★ How? **Align classroom instruction and assessment with required, tested standards.**

10. Use the RBT or Webb's DOK to unpack standards and to align instruction.

★ How? **Motivate students' interest in learning.**

11. Motivate the unmotivated – Increase value and expectancy of success.
12. Promote a growth mindset rather than a fixed mindset.

★ How? **Build background knowledge.**

13. Build background knowledge in all content areas.
14. Cultivate prefrontal cortex skills.
15. Build memory trace.
16. Teach soft skills and cultivate healthy emotional brains.
17. Teach the hidden rules of school.

★ How? **Design and deliver purposeful instruction.**

18. Purposefully teach – know the goal and reach rigor through active, deep and engaging activities.
19. Explicitly teach specific skills—use formats, templates, models, and rubrics.
20. Make learning fun; capitalize on the power of dopamine.
21. Accommodate.
22. Include the ARTS.
23. Use (formative) feedback and data to drive instruction.
25. Hold high expectations for all students – *all means ALL!*

★ How? **Benefit from strong and supportive school leadership.**

24. Be a leader (or a follower).

FINAL THOUGHTS:

- ❖ Kids from poverty (or any kids) are not stuck the way they are.
- ❖ Everyone who works with low SES kids needs to be on the same page.
- ❖ The brain is designed to change and to adapt to experiences.
- ❖ The experience and you'll change the brain.

Program Format

- Extended Introductory Session
- 8 Monthly Sessions

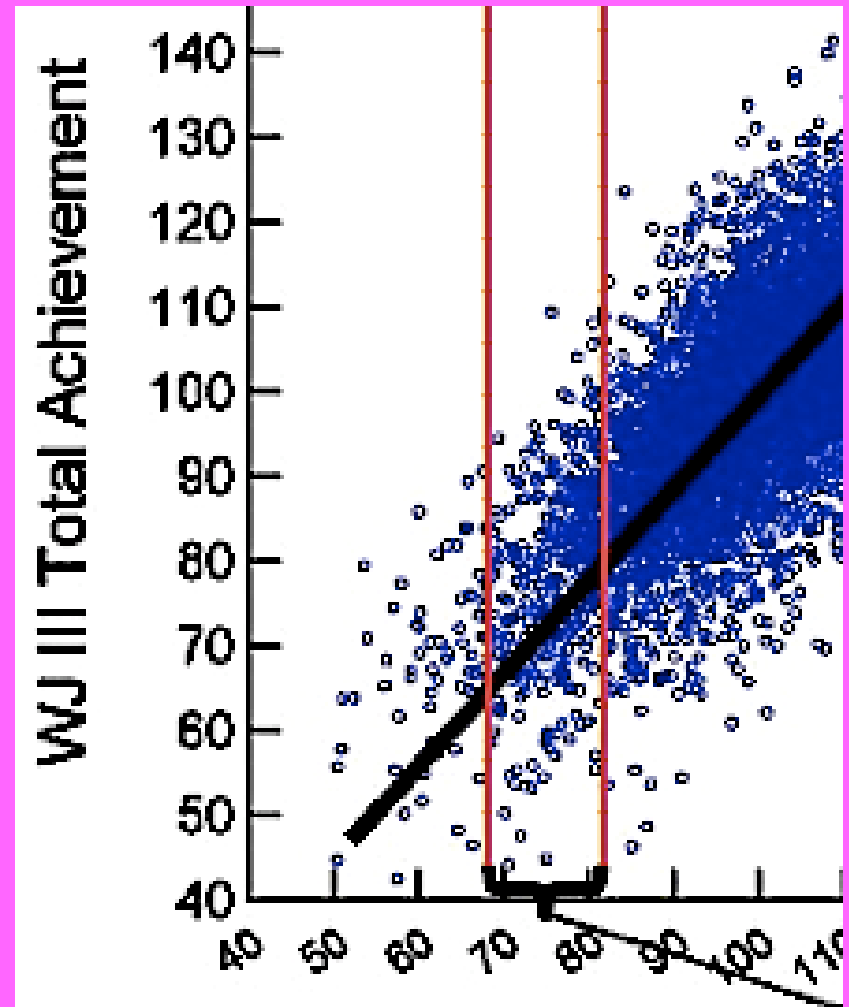
Could not focus on
all 25 strategies



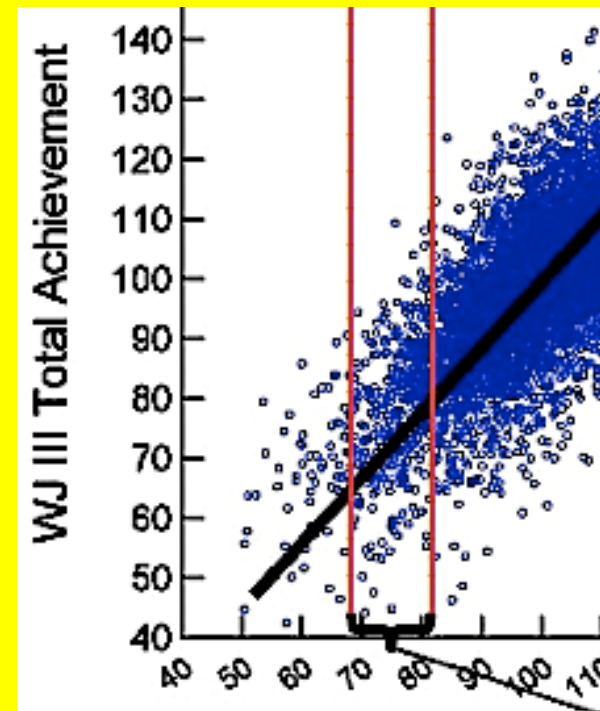
#1

Why

relationships?

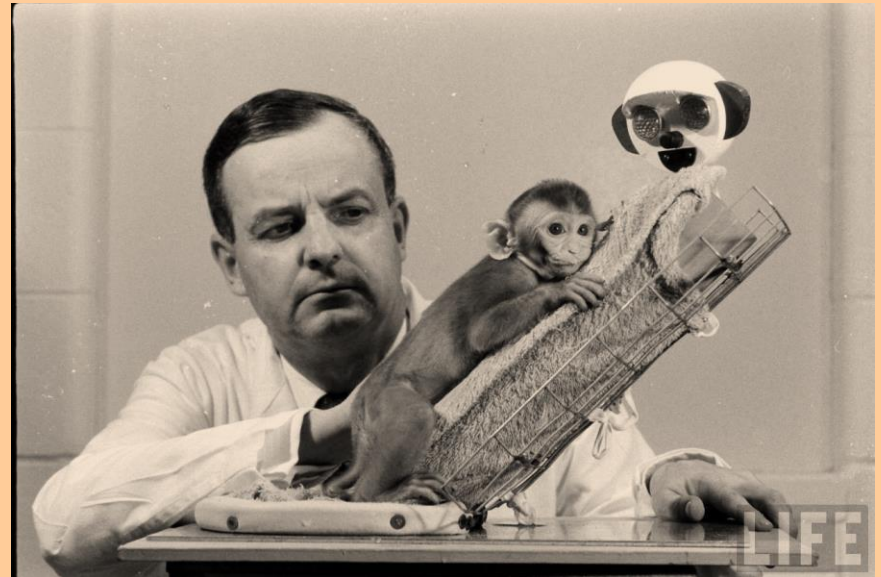


RELATIONSHIPS MATTER!





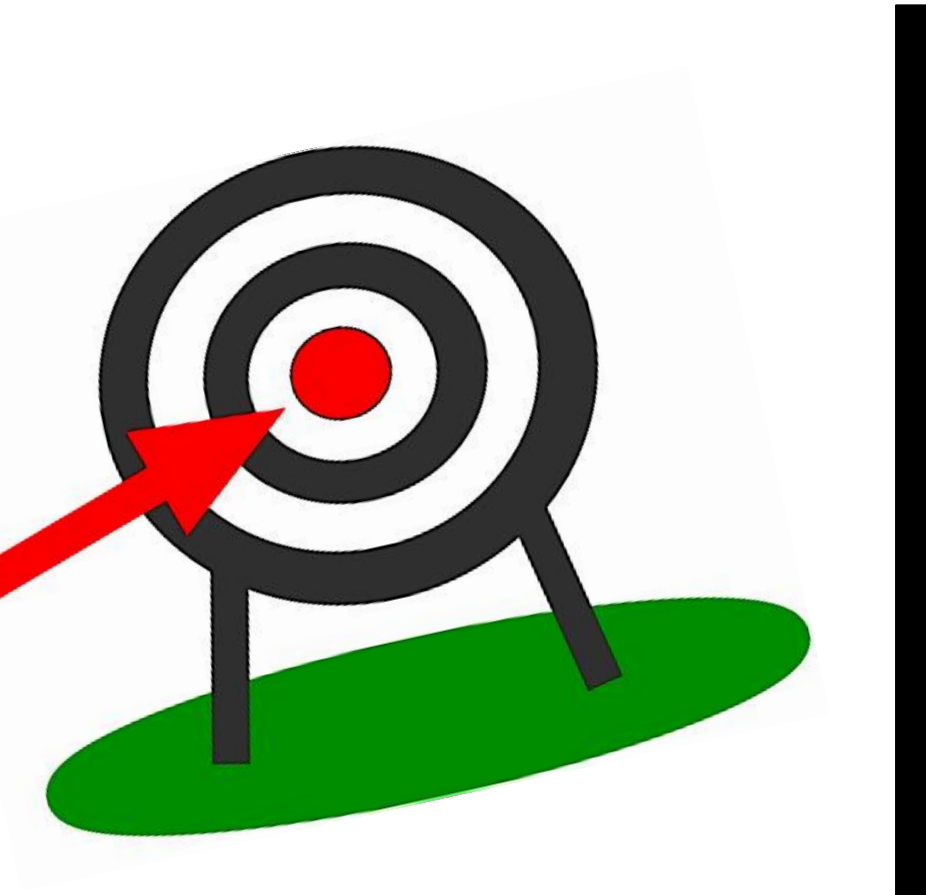
Harlow's Rhesus Monkey Studies



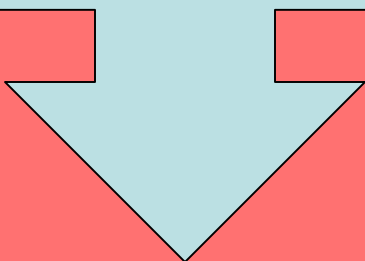
Maslow's Hierarchy



Relationships provide a safety net
for teachers who are not 'teacher-of-
the-year every minute of every day.



High-quality
relationships



31% Fewer

discipline problems, rule violations,
and other problems

How important are relationships?

9 of 10

*success stories
point to a*

RELATIONSHIP!



**(more later on
specific content as
time allows)**

What yields biggest returns?

IMPLEMENTATION OF

Research-based strategies

STUDIED THROUGH

Sustained professional learning

USING AN

Action research model

GUIDED BY

Unrelenting school leaders

Introductory Session

Why poverty matters

- Neuroscience grounding
- Who are our children in poverty?
- Relationships as a mitigating factor

Introduction to Action Research

- Action Planning
- Targeted students

Sustained Model

Monthly PLC meetings (1 -1½ hours)

– Organized loosely by grade levels

- Review of Action Research Data
- Introduction of new topic

Project End Reflection (1 ½ hours)

Focused Exploration

- The impact of poverty and life experiences on the brain and on school achievement
- The unique and specific needs of children of poverty as learners in the school community
- Specific, research-based strategies that can be successfully used to build relationships with students.

Example

March

Action Research Reflection:

- Executive Functions
- Dopamine

New content and plan:

Hidden Rules and Soft Skills

Previous Month's Content

Current Month's New Content

What yields biggest returns?

IMPLEMENTATION OF

Research-based strategies

STUDIED THROUGH

Sustained professional learning

USING AN

Action research model

GUIDED BY

Unrelenting school leaders

Action Research Model

Participants

- Develop goal-based action plans for targeted students or groups of students
- Implement plans
- Collect data (outputs and outcomes)
- Report outcomes for analysis

Action Research Implementation



ACTION PLAN AND IMPLEMENTATION FORMAT

Identify & Explain:	Goal(s):
Planned Strategies:	Actual Outputs:
Outcomes:	Reflection:

- **Data collection document provided during each session**
- **Participants challenged to**
 - *Identify students in need*
 - *Plan action strategies*
 - *Record output and outcome data during intervention period*
 - *Share outcomes in follow-up session*

Action Research Implementation

- Participants worked in small group and whole groups.
- Group work moved participants forward as individual teachers and as members of the school team.
- Common concerns were expressed about students as individuals and as learners.
- Participants regularly personalized group discussions through anecdotal comments.

Action Research Templates

Action Research Template with Prompts

ACTION PLAN AND IMPLEMENTATION FORMAT

Identify & Explain: *Identify challenge and explain how it presents in the classroom or for the student.*

Goal(s): *Specify the goal for your targeted intervention.*

Planned Strategies: *List the strategies you plan to implement.*

Actual Outputs: *List the strategies you actually implemented.*

Outcomes : *Discuss the outcomes that resulted from your targeted intervention. These should relate directly to your goal.*

Reflection: *Reflect on how closely your outcomes matched with the goals you identified before your intervention began. Was your goal met? Why or why not? What other outcomes occurred that you did not expect? What are the implications of this experience for you? For the student?*

Modified Template

<i>Targeted Students or Classes</i>	<i>I will try this....</i>
	<hr/> <i>Results:</i>
	<hr/> <i>Results:</i>

Action Research Model Hurdles

- Limited experience with action research.
- Limited experience with formal data analysis, specifically at the grade or school level.

What yields biggest returns?

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Research-based strategies

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GUIDED BY

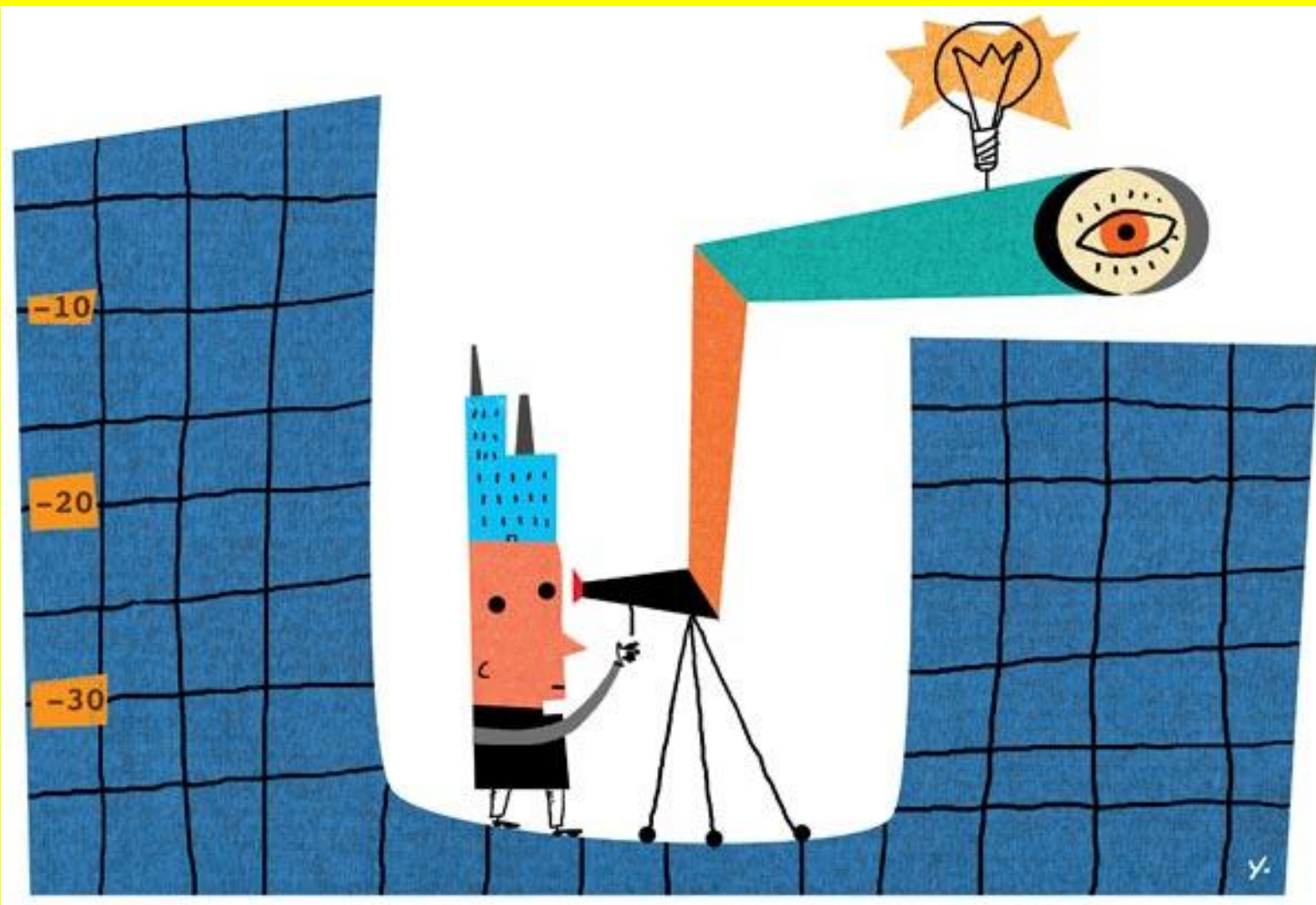
Relentless school leaders

Relentless Leaders!



Green Sea Floyds High & Middle School





Visionary

**Knows
and
Uses
Data**





**Innovative
Thinker**

Fully Invested





**Strongest
Supporter**



Front and Center

Greatest Cheerleader





© UNICEF/NYHQ2006-1500/Giacomo Pirozzi

Process Partner

An hourglass with golden sand falling through it, set against a black background. The text is overlaid on the hourglass.

ACCOUNTABILITY

IS THE GLUE THAT
TIES COMMITMENT
TO THE RESULT.

-Bob Proctor

WWW.PROCTORGALLAGHERINSTITUTE.COM

**Accountability
Partner**

What yields biggest returns?

IMPLEMENTATION OF

Research-based

OUTCOMES

Research model

GUIDED BY

Unrelenting school leaders

Conclusions

The original project did NOT:

DID NOT include formal evaluation of teachers or teacher behavior.

DID NOT require participants to submit action research plans or data collection and analysis for review at any time.

Conclusions

But some amazing things happened, even without that type of formal accountability in the initial project!

Participant Involvement Analyses

- **Very involved to moderately involved.**
- **Presence of school leader in every session ESSENTIAL!**

Shifts

Changes in group discussions over time were noted, specifically in areas of

- Questions posed by participants
- Reported strategies implemented
- Self-analysis

Analysis: Belief systems about under-resourced students and the importance of related teacher behaviors shifted dramatically.

Shifts

- Share similar concerns and experiences.
- Share concerns about specific students.
- Share knowledge of student's life circumstances in explanation of student behavior or level or engagement.
- Plan together for specific students.

Broader Application

- **School leaders** reported extended discussions of theory and practice beyond monthly sessions.
- **Teachers** self-reported similar information within sessions, in face-to-face conversations, and via email communications with the facilitator.

The Big Payoff!

From
F to A



Congratulations to GSFH
for being recognized as a
Bronze Award winner by the
U.S. News & World Report.

**"One Team,
One Goal,
No Limits"**

PERFORMANCE

Comprehensive detail, including def
as well as school and school district

YEAR	ABSOLUTE RATING	GROWTH RATING
2013	Good	Average
2012	Average	Below Average
2011	Average	Below Average

ABSOLUTE RATINGS OF HIGH SCHOOLS WITH STUDENTS LIKE OURS*

EXCELLENT

6

GOOD

6

AVERAGE

17

BELOW AVERAGE

1

AT-RISK

0

* Ratings are calculated with data available by 11/07/2013. Schools with Students Like Ours are High Schools with Poverty Indices of no more than 5% above or below the index for this school.

HIGH SCHOOL ASSESSMENT PROGRAM(HSAP) EXAM PASSAGE RATE(%): SECOND YEAR STUDENTS

	Our High School		High Schools with Students Like Ours	
	2012	2013	2012	2013
Passed 2 subtests (%)	71.6%	81.4%	70.0%	72.4%
Passed 1 subtest (%)	15.9%	12.8%	16.4%	15.9%
Passed no subtests (%)	12.5%	5.8%	13.5%	13.1%

HSAP PASSAGE RATE (%) BY SPRING 2013

	Our High School	High Schools with Student Like Ours
Passage Rate	92.1%	86.2%

END OF COURSE TESTS - 2013

% of students scoring 70 or above on:

Algebra 1/Math for the Technologies 2

English 1

Biology 1/Applied Biology 2

US History and the Constitution

All Tests

Our High School

70.5

73.5

70.9

51.6

67.1

High Schools with Students Like Ours

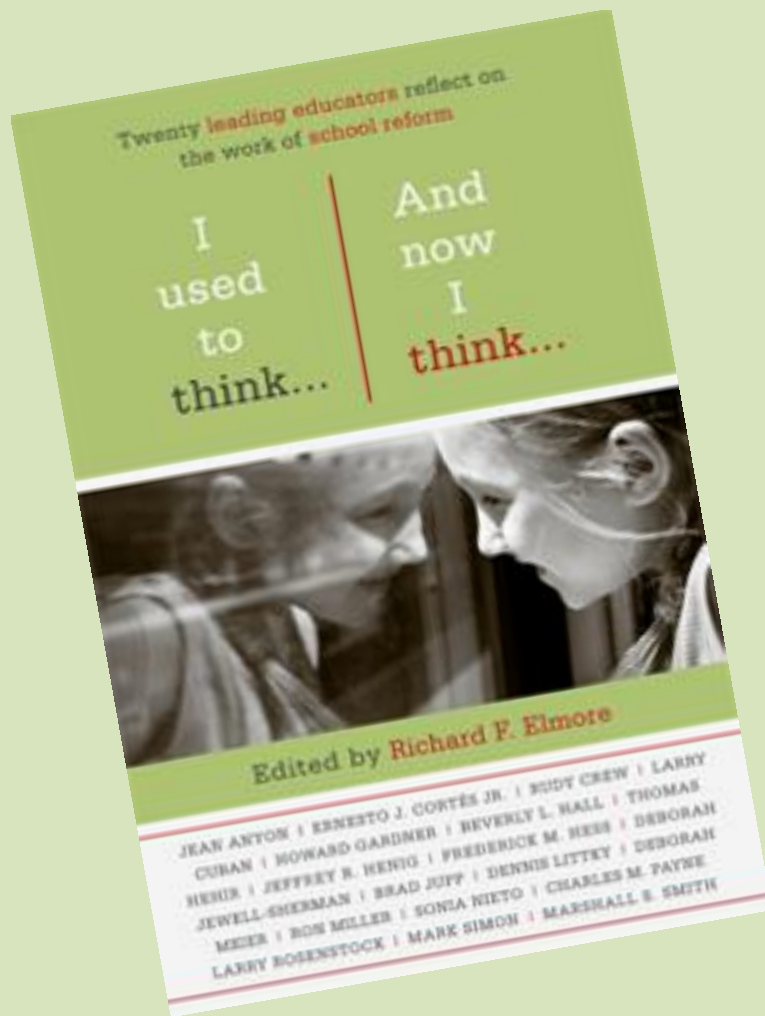
67.6

59.3

66.4

41.3

58.5



Guided Reflection

I used to think...
And now I think...

Anonymous self-reported shifts in pre-and post-experience beliefs.

**More
importantly**

I used to think...

And now I think...

**UNEDITED
REFLECTIONS**

I used to think...

And now I think...

*That students lacked
motivation*

*They lack background
experiences*

I used to think...

And now I think...

People who live in poverty could do better for themselves than they do

They have an extreme time juggling everyday basic needs in order to survive because that is all they are doing is surviving from day to day

I used to think...

And now I think...

Children with behavior problems are just “acting out” for attention

*There is no telling what they have gone through, are going through, or will go through the next day.
EX: no sleep, helping with siblings, has anything to eat, being abused*

I used to think...

And now I think...

Why don't you come to school events, conferences, or answer my phone call?

The parent may be working several jobs or not have the transportation

I used to think...

And now I think...

*Brains stop growing at
some point*

*Brains can and do change
everyday*

I used to think...

And now I think...

*Children learn best when
it is quiet*

Children learn by talking

I used to think...

And now I think...

Parents didn't care if their child did well in school

Parents may not have the means to see that their child can do as well because of time, stress, money, and knowledge



***What
is the
wild
card?***

What yields biggest returns?

IMPLEMENTATION OF

Research-based strategies

STUDIED THROUGH

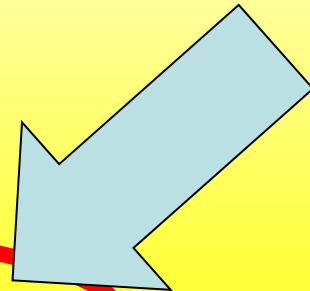
Sustained professional learning

USING AN

Action research model

GUIDED BY

Unrelenting school leaders

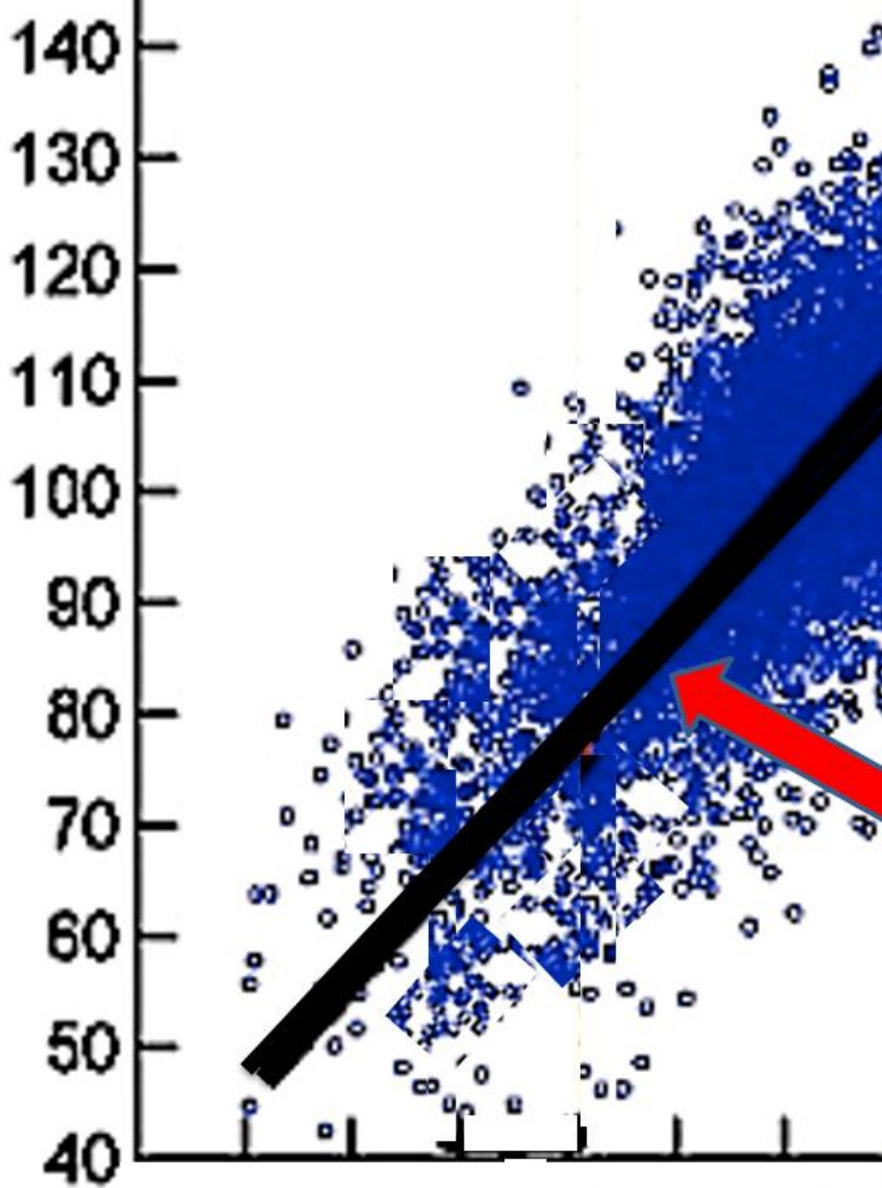


EXPANED IMPACT MEASURES

- **ESEA Waiver Grade Change**
- **Achievement** *(state tests, school report cards)*
- **Attendance** *(teacher and student)*
- **Behavior Referrals** *(minor and major)*

ADAPTED FROM: Mehrabian, Albert, (2002) Beyond IQ: Broad-based measurement of individual success potential or "emotional intelligence". Genetic, Social, & General Psychology Monographs, May 126(2), 133-239.

Achievement



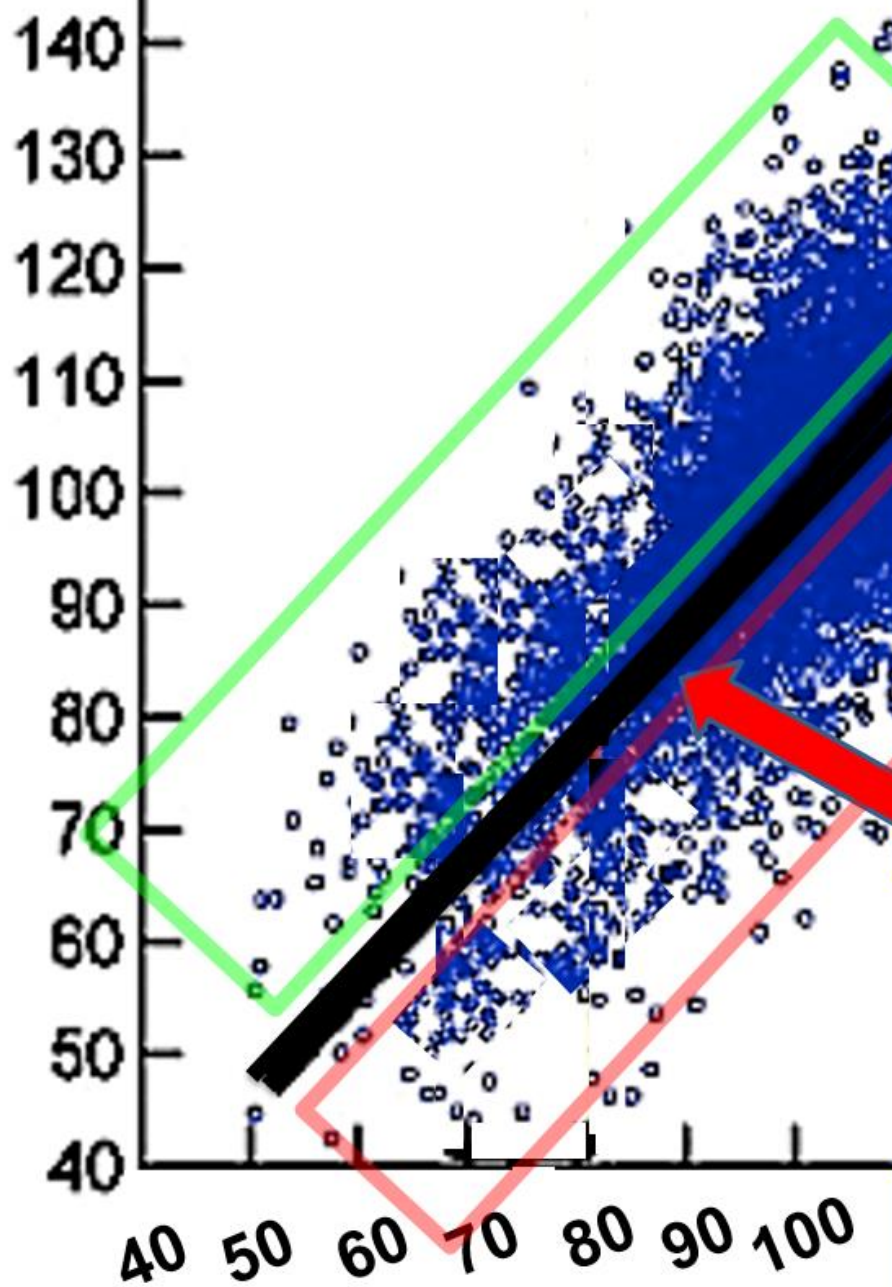
40 50 60 70 80 90 100

IQ

Expected Trajectory

copyright 2014 tammy pawloski

Achievement



Why did these students overperform?

Why did these students underperform?

Expected Trajectory

IQ



***Change the experience, and
you'll change the brain!***



*poverty
matters*



YOU
can matter
MORE

STAND BY
YOUR
KIDS

-Stay in Touch-

Web or Email Social Media

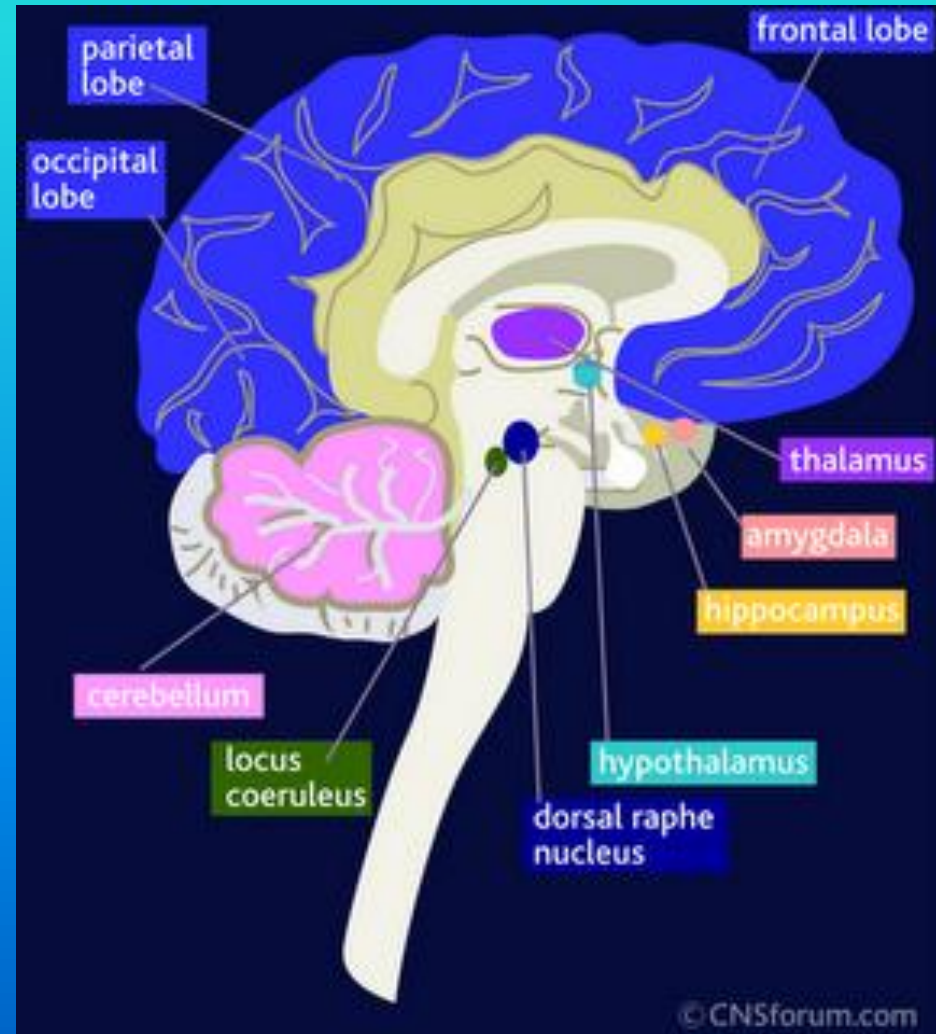


#changethebrain
#teachersmattermore
#actionresearch

@thpawloski
@CenterofExcel

The 5 Most Likely Brain Disorders for Low SES Kids

1. Stress
2. AD/HD (and ADD)
3. Learning delays
4. Attachment
5. Dyslexia



Jensen, E. , 2010.

#2

Three Levels of Stress Response

Positive

Brief increases in heart rate,
mild elevations in stress hormone levels.

Tolerable

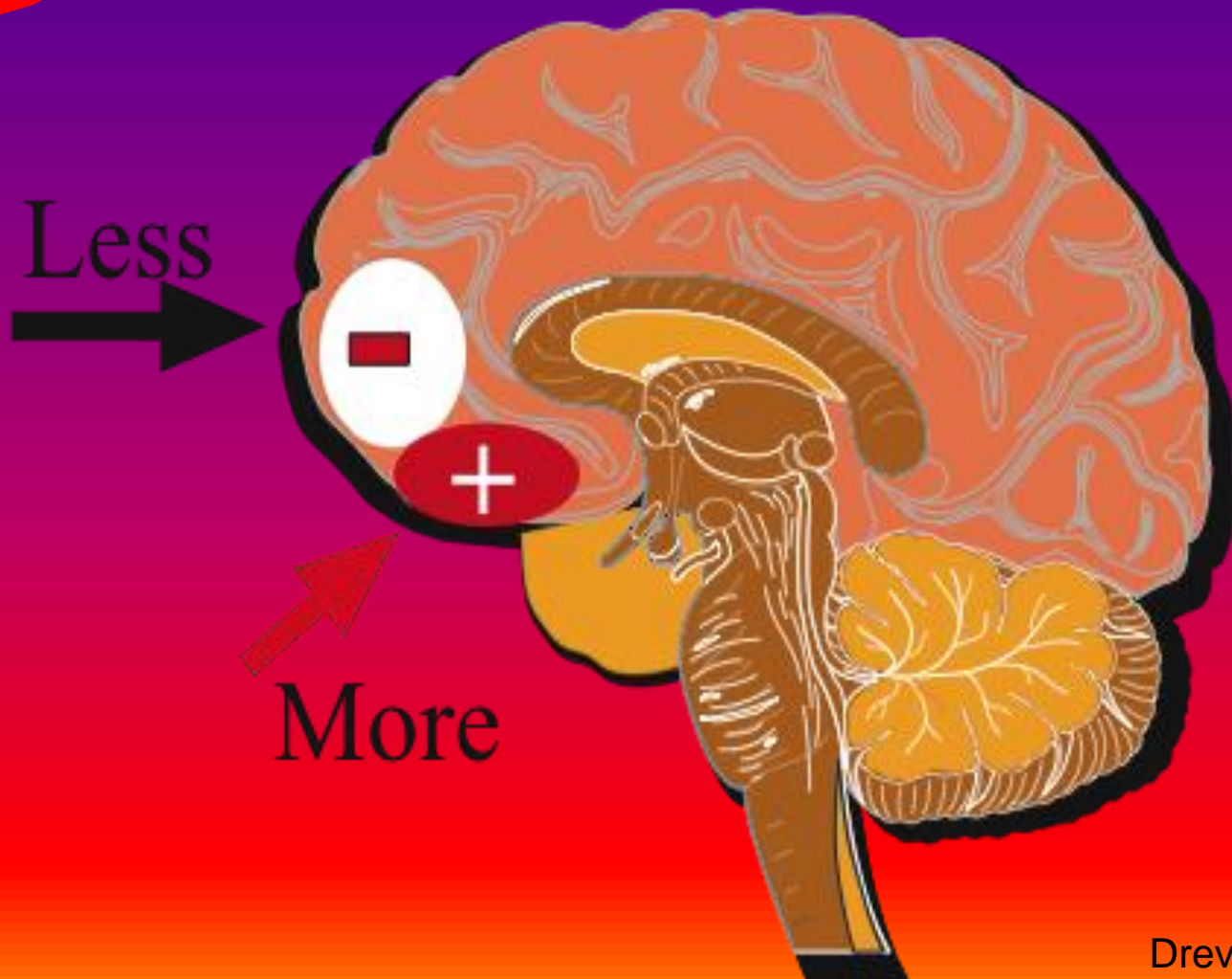
Serious, temporary stress responses,
buffered by supportive relationships.

Toxic

Prolonged activation of stress response systems
in the absence of protective relationships.

Stress Disorders

Chronic Stress & Threat Alters Blood Flow in the Brain





How will you respond?





How does stress change YOU?



PHYSICAL, BIOLOGICAL, PSYCHOLOGICAL AND OTHER STRESSORS

STRESS RESPONSE

CEREBRAL CORTEX
HYPOTHALAMUS PITUITARY OTHER ENDOCRINES
GLAND

EMOTIONS

AUTONOMIC NERVOUS SYSTEM

ADRENAL GLANDS

SENSORY NERVES

ADRENERGIC

CHOLINERGIC

ALPHA, BETA RECEPTORS

SKIN

- Heart Rate
- Respiration
- Sweating
- Blood Pressure
- Gastric Acidity
- Digestion
- Intestinal Movements
- Bronchial Spasm
- Emotional Changes
- Body Metabolism
- Other Changes

THYMUS GLAND

T CELLS

REDUCED IMMUNE STATUS

NEURO-PEPTIDE P
OTHER CHEMICAL MEDIATORS

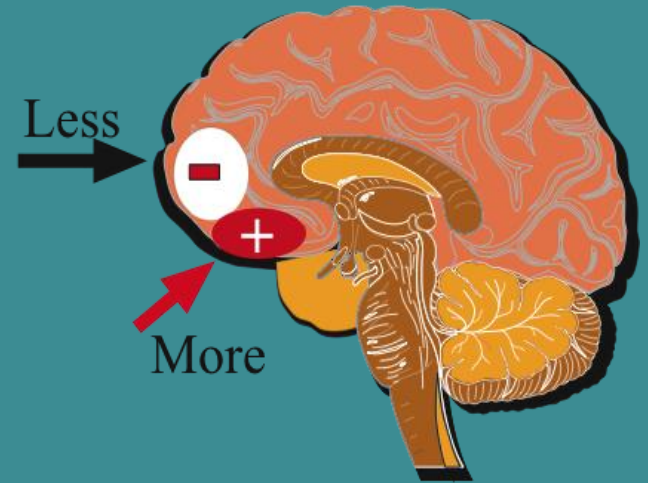
WEAK ORGANS AFFECTED

Major Effects of Stress on Body

DISEASE STATUS

Stress and Distress

- Chronic stress **alters blood flow to the brain**
- Poor children are exposed:
 - to more stressors
 - more intense stressors
 - longer lasting stressors
- *They have fewer coping strategies than their higher SES counterparts.*



social judgment skills

lifelong health

STRESS NEGATIVELY AFFECTS:

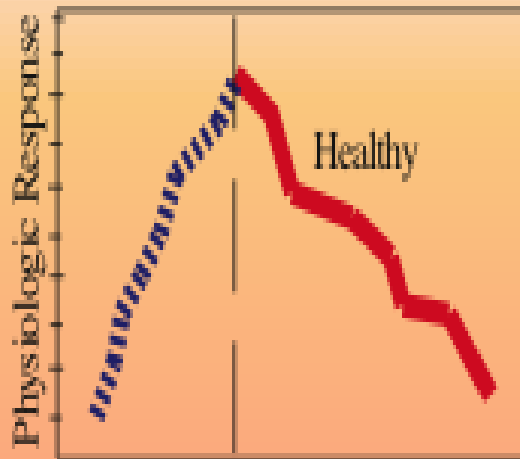
IQ

attendance

attention, focus and
concentration

cognition, creativity, and memory

Healthy Brain Stress Response

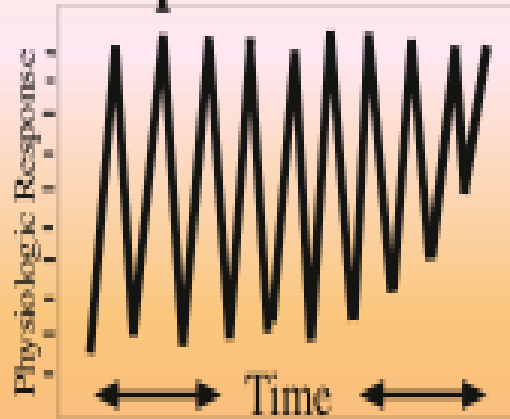


Activity

Recovery

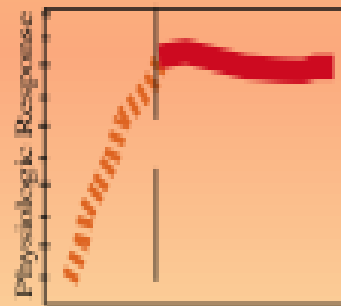
NORMAL vs. DISTRESS RESPONSES
(Cortisol Activations)

Repeated "Hits"



Trauma

OR

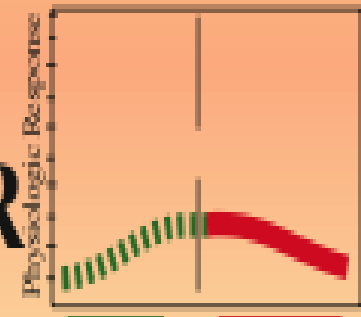


Same Stimulus

No Recovery

Prolonged
Response

OR



Same Stimulus

No Recovery Needed

Inadequate
Response

Chronic Stress Effects... T or F?

1. Creates emotional problems (T or F)

(Burgess et al., 1995)

2. Lowers IQ, reading scores (T or F)

(Delaney-Black, et al. 2002)

3. Drastic memory loss (T or F)

(Lupien, et al. 2001)

4. Shortens dendrites (T or F)

(Cook and Wellman, 2004), (Brown, et al. 2005)

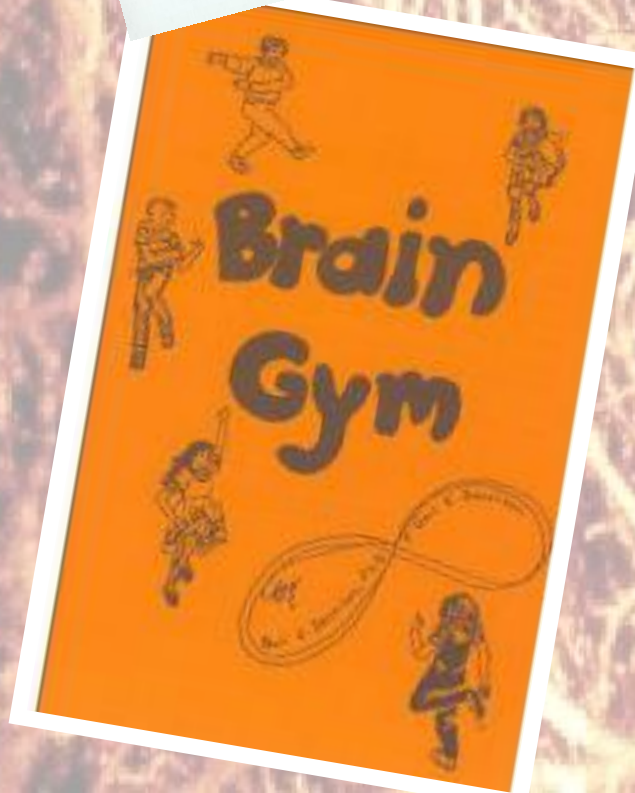
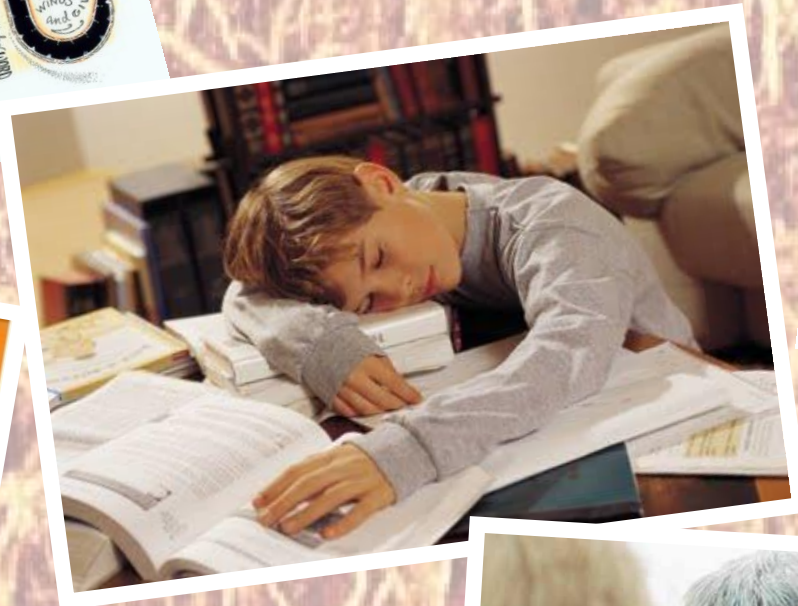
5. Causes neuron death (T or F)

(De Bellis, et al.,2001)

6. Fosters inappropriate attachments (T or F)

(Schore, A. 2002)

Good blood flow?



**POWERFUL
BRAIN-BASED
STRATEGY**

CORTISOL
stress

and

TESTOSTORONE
dominance

How do these change performance?

CORTISOL
stress

and

TESTOSTORONE
dominance

Which combinations is best for performance?

Cortisol HIGH - Testostorone HIGH

Cortisol LOW - Testostorone LOW

Cortisol HIGH - Testostorone LOW

Cortisol LOW - Testostorone HIGH

CORTISOL
stress

and

TESTOSTORONE
dominance

Which combinations is best for performance?

Cortisol HIGH - Testostorone HIGH

Cortisol LOW - Testostorone LOW

Cortisol HIGH - Testostorone LOW

Cortisol LOW - Testostorone HIGH

CORTISOL
stress

and

TESTOSTORONE
dominance

What can change these levels?

CORTISOL
stress

and

TESTOSTORONE
dominance



CORTISOL
stress

and

TESTOSTORONE
dominance



Ann Cuddy's TED TALK
Search: 'YouTube posture and brain'

CORTISOL
stress

and

TESTOSTORONE
dominance

POWER POSE

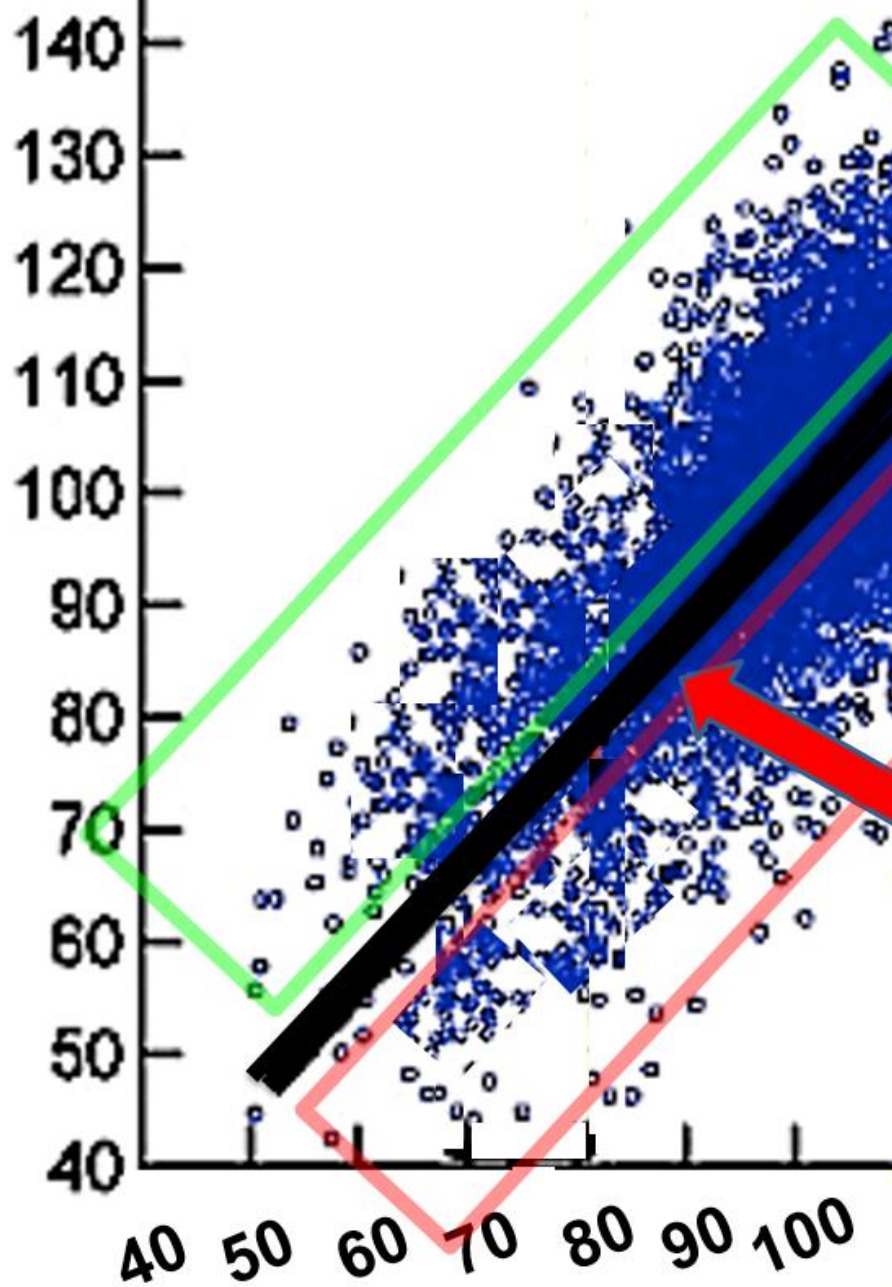
just 2 minutes!

Ann Cuddy

Search: YouTube posture and brain



Achievement



Why did these students overperform?

Why did these students underperform?

Expected Trajectory

IQ



***Change the experience, and
you'll change the brain!***



*poverty
matters*



YOU
can matter
MORE

STAND BY
YOUR
KIDS

-Stay in Touch-

Web or Email Social Media



#changethebrain
#teachersmattermore
#actionresearch

@thpawloski
@CenterofExcel