Evidence Based Strategies:
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

NAFEPA
National Association of Federal Education Program Administrators
March 2015

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

@thpawloski @CenterofExcel

#changethebrain #teachersmattermore #actionresearch
You probably have a lot of thoughts about poverty.

Tell someone nearby what you ‘think’ about poverty.
Teaching Children of Poverty

<table>
<thead>
<tr>
<th>THINK</th>
<th>WONDER</th>
<th>LEARNED</th>
</tr>
</thead>
</table>

T

W

L
You probably have a lot of questions about poverty.

Tell someone nearby what you ‘wonder’ about poverty.
<table>
<thead>
<tr>
<th>Teaching Children of Poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>THINK</strong></td>
</tr>
<tr>
<td><strong>WONDER</strong></td>
</tr>
<tr>
<td><strong>LEARNED</strong></td>
</tr>
</tbody>
</table>
Essential Questions

• Who are our families and children in poverty?

• Why does poverty matter and what must districts, schools, and teacher do?
<table>
<thead>
<tr>
<th>Size of Family Unit</th>
<th>Estimated Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 person</td>
<td>$11,888</td>
</tr>
<tr>
<td>2 people</td>
<td>$15,142</td>
</tr>
<tr>
<td>3 people</td>
<td>$18,552</td>
</tr>
<tr>
<td>4 people</td>
<td>$23,834</td>
</tr>
<tr>
<td>5 people</td>
<td>$28,265</td>
</tr>
<tr>
<td>6 people</td>
<td>$31,925</td>
</tr>
<tr>
<td>7 people</td>
<td>$36,384</td>
</tr>
<tr>
<td>8 people</td>
<td>$40,484</td>
</tr>
<tr>
<td>9 people or more</td>
<td>$48,065</td>
</tr>
</tbody>
</table>
## 2014-15 Free & Reduced Lunch Eligibility

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

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

For each additional household member:

| Add | 5,278 | 7,511 | 440 | 626 | 220 | 313 | 203 | 289 | 102 | 145 |

| Add | 5,278 | 7,511 | 440 | 626 | 220 | 313 | 203 | 289 | 102 | 145 |
Percent in Poverty
All Ages, by State (2013)
Percent in Poverty - All Ages, by County
High Poverty Schools in America

National School Lunch Program Participation
By Meal Type Provided, 2012

68%

US Department of Agriculture
http://febp.newamerica.net/background-analysis/federal-school-nutrition-programs
How do you make ENDS MEET?

WATCH THE POVERTY USA TOUR

Povertyusa.org
Teachers generally are aware of basic poverty data.

1. True

2. False
Search “SAIPE”

Small Area Income and Poverty Estimates

Main  About SAIPE  Data  Methodology  Publications  Related Sites  Contact Us
http://playspent.org/

SPENT

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

PROVE IT

ACCEPT THE CHALLENGE
Essential Questions

• Who are our families and children in poverty?

• Why does poverty matter and what must districts, schools, and teacher do?
MYTHS
and
MISCONCEPTIONS
Poverty DOES NOT Matter!
Teachers clearly understand why poverty can matter.

1. A few understand
2. Some understand
3. Many understand
4. Most understand
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
What actions might YOU take?
BIRTH and LIFE without resources can have a significant impact on brain development and school achievement.
Birth without resources.

More likely to:

• be premature

• be low in birth weight

• have disabilities such as asphyxia and fetal alcohol syndrome

Bradley and Corwyn, 2002
Brain weight at 35 weeks is only 2/3 of that at full term gestation.

Source: March of Dimes
What actions might YOU take?
There is good news for children born in poverty!
Nearly a 2-1 advantage of environment over genetics!

Devlin, B., Daniels, M., & Roeder, K., 1997
DNA defines the outer limits of potential.

Environmental influences define the extent to which one utilizes that potential.
LIFE WITH RESOURCES

Access to

Early ‘Extras’:  
✓ quality child care  
✓ stimulating toys  
✓ books

Later ‘Extras’:  
✓ team uniform costs  
✓ school supplies  
✓ team travel costs  
✓ scouts or summer camp  
✓ music/dance lessons

(Posner & Vandell, 1999; Sherman, 1994).
POVERTY

The extent to which an individual does without resources that help one to be successful.
But what if a child lives in an environment... What are the risks?
Early experiences dictate neural pathways.

From birth to five, the brain downloads the world.
Poverty is more influential than gestational exposure to cocaine!

The 5 Most Likely Brain Disorders for Low SES Kids

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

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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.

Center on the Developing Child HARVARD UNIVERSITY
Chronic Stress & Threat Alters Blood Flow in the Brain

Drevets, W. C., Raichle, M. E.
How will you respond?
How does stress change YOU?
Major Effects of Stress on Body

DISEASE STATUS

- 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
  - WEAK ORGANS AFFECTED

ADRENAL GLANDS
- ALPHA, BETA RECEPTORS

AUTONOMIC NERVOUS SYSTEM
- ADRENERGIC
- CHOLINERGIC

SENSORY NERVES
- SKIN

NEURO-PEPTIDE P
- OTHER CHEMICAL MEDIATORS

PHYSICAL, BIOLOGICAL, PSYCHOLOGICAL AND OTHER STRESSORS

STRESS RESPONSE

CEREBRAL CORTEX
- HYPOTHALAMUS
- PITUITARY
- OTHER ENDOCRINES

GLAND
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.*
STRESS NEGATIVELY AFFECTS:

- IQ
- Attendance
- Attention, focus, and concentration
- Cognition, creativity, and memory
- Social judgment skills
- Lifelong health
Healthy Brain Stress Response

Normal vs. Distress Responses (Cortisol Activations)

Repeated "Hits" OR Trauma

Physiologic Response

Healthy

Activity Recovery

Prolonged Response

Inadequate Response

Stress Stimuli

No Recovery

No Recovery Needed
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
How do these change performance?
Which combinations is best for performance?

- Cortisol HIGH - Testosttorone HIGH
- Cortisol LOW - Testosttorone LOW
- Cortisol HIGH - Testosttorone LOW
- Cortisol LOW - Testosttorone HIGH
Which combinations is best for performance?

- **Cortisol HIGH** - **Testostorone HIGH**
- **Cortisol LOW** - **Testostorone LOW**
- **Cortisol HIGH** - **Testostorone LOW**
- **Cortisol LOW** - **Testostorone HIGH**
What can change these levels?
CORTISOL stress and TESTOSTERONE dominance
CORTISOL and TESTOSTERONE
stress dominance

Ann Cuddy’s TED TALK
Search: ‘YouTube posture and brain’
POWER POSE
just 2 minutes!

Ann Cuddy
Search: YouTube posture and brain
What actions might YOU take?
The 5 Most Likely Brain Disorders for Low SES Kids

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

ATTACHMENT DISORDERS

3 Year Old Children

Normal

Extremely Neglect

Child Trauma Academy

1997 Bruce D. Perry, M.D., Ph.D.
Harlow’s Rhesus Monkey Studies
why relationships matter for kids

Maslow’s Hierarchy

Self-Actualization
The Aesthetic Needs
The Cognitive Needs
The Esteem Needs
Need for Love and Belonging
The Need for Safety and Security
The Physiological Needs
why relationships matter for teachers
High-quality relationships

31% Fewer discipline problems, rule violations, and other problems

Marzano and Pickering, 2003
How important are relationships?

9 of 10 success stories point to a RELATIONSHIP!

(Payne, 2005)
What actions might YOU take?
The 5 Most Likely Brain Disorders for Low SES Kids

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

Summer Learning – Horizons National
http://www.youtube.com/watch?v=Ahhj3wxkdM
Poverty and Education: Finding the Way Forward
FIGURE 1

2-Year-Olds

Listening Comprehension
- In poverty: 29%
- At or above poverty: 39%

Expressive Vocabulary
- In poverty: 55%
- At or above poverty: 67%

4-Year-Olds

Letter Recognition
- In poverty: 20%
- At or above poverty: 37%

Numbers and Shapes
- In poverty: 45%
- At or above poverty: 72%

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

two cohorts
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.

(Biddle, 2001, p. 6)
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!
The dropout rate for low-income students was five times greater than their high-income counterparts—7.4 percent compared with 1.4 percent.
THE GAP AT AGE 4: 220 HOURS & $30,228
Jack’s family has likely spent 220 more hours reading to him and invested in other educational experiences.

THE GAP AT AGE 5: 1,615 HOURS & $37,785
Kids like Mike access pre-K education at significantly lower levels, losing out on 1,395 hours of learning.

THE GAP AT AGE 8: 4,675 HOURS & $60,456
Mike is less likely to be able to enroll in enriching extracurricular activities, losing 3,060 more hours in grade school.
THE GAP AT AGE 10: 5,755 HOURS & $75,570
Jack is eight times more likely than Mike to enjoy 1,080 hours of camp or other **summer learning** opportunities.

THE GAP AT AGE 12: 6,000 HOURS & $90,684
Jack has likely spent 245 more hours than Mike taking trips to zoos, museums, or other summer **field trips**.

**THAT’S A**
**6,000-HOUR & $90,684 GAP**

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

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

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

Age 3: 30 MILLION WORD GAP
Students from low-income families are exposed to less oral conversation

<table>
<thead>
<tr>
<th></th>
<th>Professional Families</th>
<th>Working-Class Families</th>
<th>Welfare Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent Utterances Per Hour</td>
<td>487</td>
<td>301</td>
<td>176</td>
</tr>
<tr>
<td>Child’s Recorded Vocabulary Size</td>
<td>1,116</td>
<td>749</td>
<td>525</td>
</tr>
<tr>
<td>IQ Score at Age 3</td>
<td>117</td>
<td>107</td>
<td>79</td>
</tr>
</tbody>
</table>

Source: Adapted from Hart & Risley, 1995, p. 176.

Marzano Research Laboratory, 2013
1st Grade Vocabulary


Mid-SES

Low-SES
2nd Grade Vocabulary Predicts 11th Grade Academic Performance
3rd Grade Vocabulary

Why Can’t I Skip My 20 Minutes of Reading Tonight?

<table>
<thead>
<tr>
<th>Student “A”</th>
<th>Student “B”</th>
<th>Student “C”</th>
</tr>
</thead>
<tbody>
<tr>
<td>reads 20 minutes each day</td>
<td>reads 5 minutes each day</td>
<td>reads 1 minute each day</td>
</tr>
<tr>
<td>3600 minutes in a school year</td>
<td>900 minutes in a school year</td>
<td>180 minutes in a school year</td>
</tr>
<tr>
<td>1,800,000 words</td>
<td>282,000 words</td>
<td>8,000 words</td>
</tr>
</tbody>
</table>

By the end of 6th grade Student “A” will have read the equivalent of 60 whole school days. Student “B” will have read only 12 school days. Which student would you expect to have a better vocabulary? Which student would you expect to be more successful in school...and in life?

(Nagy & Herman, 1987)
What actions might YOU take?
MYTHS and MISCONCEPTIONS
Myth #2

There is NO HOPE for kids of poverty!
Francis Marion University School of Education

Center of Excellence
to Prepare Teachers of Children of Poverty

Challenges and Opportunities
Is there hope?
Absolutely!
Experiences Change IQ

'healthy'
'suitable for adoption'

Average IQ at outset: 84

Average IQ at outset: 64

'Skeels (1966)'

'mentally retarded'
'unsuitable for adoption'
After Two Years:

- Average IQ at outset: 64
  - ‘mentally retarded’
  - ‘unsuitable for adoption’

- Average IQ at outset: 84
  - ‘healthy’
  - ‘suitable for adoption’

+Skeels (1966)
11/13 adopted and later married 9 children; all normal IQs
Median level of education: 12th grade
11/13—homemakers or employed in business or professional work
2/13 employed—domestic service

Median level of education: 3rd grade
4/12 institutionalized
7/12 employed—unskilled laborers

Skeels (1966)
The GOOD news:

Schools can also make the difference in how brains develop and in how successful children of poverty can be.
Each time a brain circuit is activated, it becomes stronger and more permanent.
How do we know?
functional Magnetic Resonance Images (fMRI)

Changes in Brains of Struggling Readers

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
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

Class Size Reduction: 24:1 to 15:1

Teacher Quality Improvement: 25th vs. 75th percentile

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:

- Most Effective: 6 months
- Average: 1 year
- Least Effective: 2 years

Hanushek & Rivkin, 2006
And, students from disadvantaged backgrounds learn at the same rate as advantaged students with effective teachers!

Hamre & Pianta, 2005
As much as 43% of the student’s academic performance can be traced to the quality of the teacher in the classroom.

The
Bottom Line
One’s IQ can (and does!) change with experience.
Why did these students overperform?

Why did these students underperform?

Expected Trajectory
Change the experience, and you’ll change the brain!
Francis Marion University School of Education

Center of Excellence
to Prepare Teachers of Children of Poverty

Established 2004
What yields biggest returns?
Why did these students overperform?

Why did these students underperform?

Expected Trajectory
8 Categories of Strategies

- Relationships
- Health-related supports
- Family and community partnerships
- Motivation
- Background knowledge
- Alignment
- Purposeful instruction
- Leadership
25 Research-based, High-yield Strategies


**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 RTI 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.

**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.
22. Include the ARTS.
23. Use (formative) feedback and data to drive instruction.
24. 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 adapt to experiences.*
- *You will change the experience and you’ll change the brain.*
Francis Marion University School of Education

Center of Excellence

to Prepare Teachers of Children of Poverty

Challenges and Opportunities
Center of Excellence to Prepare Teachers of Children of Poverty

www.fmucenterofexcellence.org

Social Media

Pinterest

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.

Pineapple, South Carolina
Poverty Simulations
I have previously participated in a poverty simulation.

• True

• False
http://playspent.org/

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

PROVE IT
ACCEPT THE CHALLENGE
Pre-Service and Graduate Coursework
Six Standards

1. Life in Poverty
2. Language and literacy
3. Family and Community Partnerships
4. Classroom Community
5. Curriculum Design, Instructional Strategies, and Assessment
6. Teachers as Leaders, Learners, and Advocates
Standards in All Programs

Pre-Service
- Early Childhood
- Elementary
- Middle Level
- Art Education
- Secondary English
- Secondary Math

Graduate
- M.Ed. Learning Disabilities
- M.Ed. Instructional Accommodations
- MAT Learning Disabilities
Measuring Outputs and Outcomes

ACADEMIC PROGRAM ASSESSMENTS

- TCOP Attitudes and Beliefs Survey
- TCOP Longitudinal Survey
- TCOP Mastery Assessment
- Focus Groups
- Alumni Survey
- Faculty Investment and Participation
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.

1. True

2. False
Outreach to Districts and Schools
Most Common
School and District Outreach

one day training

half day training

two hour training

one hour training
POVERTY

GAP ANALYSIS
POVERTY

SUSTAINED FOCUS

GAP ANALYSIS
Program Format

• Extended Introductory Session
• 8 Monthly Sessions
Instructional staff will grow in their understanding that poverty can matter, and teachers and schools can matter more.
Program Format

- Extended Introductory Session
- 8 Monthly Sessions

Could not focus on all 25 strategies
The Big Payoff!
From F to A

"One Team, One Goal, No Limits"

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

2012 Points Total – 53.1

2013 Points Total – 90.9
<table>
<thead>
<tr>
<th>YEAR</th>
<th>ABSOLUTE RATING</th>
<th>GROWTH RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>Good</td>
<td>Average</td>
</tr>
<tr>
<td>2012</td>
<td>Average</td>
<td>Below Average</td>
</tr>
<tr>
<td>2011</td>
<td>Average</td>
<td>Below Average</td>
</tr>
</tbody>
</table>

**ABSOLUTE RATINGS OF HIGH SCHOOLS WITH STUDENTS LIKE OURS**

<table>
<thead>
<tr>
<th>EXCELLENT</th>
<th>GOOD</th>
<th>AVERAGE</th>
<th>BELOW AVERAGE</th>
<th>AT-RISK</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>6</td>
<td>17</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

*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

<table>
<thead>
<tr>
<th></th>
<th>Our High School</th>
<th>High Schools with Students Like Ours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2012</td>
<td>2013</td>
</tr>
<tr>
<td>Passed 2 subtests (%)</td>
<td>71.6%</td>
<td>81.4%</td>
</tr>
<tr>
<td>Passed 1 subtest (%)</td>
<td>15.9%</td>
<td>12.8%</td>
</tr>
<tr>
<td>Passed no subtests (%)</td>
<td>12.5%</td>
<td>5.8%</td>
</tr>
</tbody>
</table>

### HSAP Passage Rate (%) by Spring 2013

<table>
<thead>
<tr>
<th></th>
<th>Our High School</th>
<th>High Schools with Students Like Ours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passage Rate</td>
<td>92.1%</td>
<td>86.2%</td>
</tr>
<tr>
<td>% of students scoring 70 or above on:</td>
<td>Our High School</td>
<td>High Schools with Students Like Ours</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-----------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>Algebra 1/Math for the Technologies 2</td>
<td>70.5</td>
<td>67.6</td>
</tr>
<tr>
<td>English 1</td>
<td>73.5</td>
<td>59.3</td>
</tr>
<tr>
<td>Biology 1/Applied Biology 2</td>
<td>70.9</td>
<td>66.4</td>
</tr>
<tr>
<td>US History and the Constitution</td>
<td>51.6</td>
<td>41.3</td>
</tr>
<tr>
<td>All Tests</td>
<td>67.1</td>
<td>58.5</td>
</tr>
</tbody>
</table>
Guided Reflection

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

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

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More importantly
<table>
<thead>
<tr>
<th>I used to think...</th>
<th>And now I think...</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAMPLE UNEDITED REFLECTIONS</td>
<td></td>
</tr>
<tr>
<td>copyright 2014 tammy pawloski</td>
<td></td>
</tr>
<tr>
<td>I used to think...</td>
<td>And now I think...</td>
</tr>
<tr>
<td>--------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>That students lacked motivation</td>
<td>They lack background experiences</td>
</tr>
</tbody>
</table>

copyright 2014 tammy pawloski
<table>
<thead>
<tr>
<th>I used to think...</th>
<th>And now I think...</th>
</tr>
</thead>
<tbody>
<tr>
<td>People who live in poverty could do better for themselves than they do</td>
<td>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</td>
</tr>
</tbody>
</table>

copyright 2014 tammy pawloski
<table>
<thead>
<tr>
<th>I used to think...</th>
<th>And now I think...</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Children with behavior problems are just “acting out” for attention</em></td>
<td><em>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</em></td>
</tr>
</tbody>
</table>

*copyright 2014 tammy pawloski*
<table>
<thead>
<tr>
<th>I used to think...</th>
<th>And now I think...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why don’t you come to school events, conferences, or answer my phone call?</td>
<td>The parent may be working several jobs or not have the transportation</td>
</tr>
<tr>
<td>I used to think...</td>
<td>And now I think...</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td><em>Brains stop growing at some point</em></td>
<td><em>Brains can and do change everyday</em></td>
</tr>
<tr>
<td>I used to think...</td>
<td>And now I think...</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td><em>Children learn best when it is quiet</em></td>
<td><em>Children learn by talking</em></td>
</tr>
<tr>
<td>I used to think...</td>
<td>And now I think...</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Parents didn’t care if their child did well in school</td>
<td>Parents may not have the means to see that their child can do as well because of time, stress, money, and knowledge</td>
</tr>
</tbody>
</table>
Why did this program work?
What yields biggest returns?

IMPLEMENTATION OF

Research-based strategies

STUDIED THROUGH

Sustained professional learning

USING AN

Action research model

GUIDED BY

Unrelenting school leaders
What yields biggest returns?

Implementation of research-based strategies studied through sustained professional learning using an action research model guided by unrelentless school leaders.
What yields biggest returns?

IMPLEMENTATION OF

Research-based strategies

STUDIED THROUGH

Sustained professional learning

USING AN

Action research model

GUIDED BY

Unrelenting school leaders
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 PLAN AND IMPLEMENTATION FORMAT

<table>
<thead>
<tr>
<th>Identify &amp; Explain:</th>
<th>Goal(s): Specify the goal for your targeted intervention.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify challenge and explain how it presents in the classroom or for the student.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Planned Strategies:</th>
<th>Actual Outputs: List the strategies you actually implemented.</th>
</tr>
</thead>
<tbody>
<tr>
<td>List the strategies you plan to implement.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outcomes: Discuss the outcomes that resulted from your targeted intervention. These should relate directly to your goal.</th>
<th>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?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Action Research Template with Prompts**
What yields biggest returns?

IMPLEMENTATION OF

Research-based strategies

STUDIED THROUGH

Sustained professional learning

USING AN

Action research model

GUIDED BY

Relentless school leaders
Scaling Up
Framework Non-negotiables

- Sustained professional learning
- Grounded in neuroscience (not strategies alone)
- Action research design (field assignments)
- Defined (and supported) leader actions
- Measures of impact and fidelity
EXPANDED IMPACT MEASURES

- School Report Cards
- Achievement *(state tests, school report cards)*
- Attendance *(teacher and student)*
- Behavior Referrals *(minor and major)*
Other Considerations

- Distance/hybrid presents unique challenges
- Regional centers provide localized support
- Masters degree or pay increases incentivize teacher/leader study
What actions might YOU take?
Change the experience, and you’ll change the brain!
shifts in my thinking

action steps

partner in the process
poverty matters
your impact can matter MORE