

The Impoverished Brain

Feeding Poverty Students Strategies for Success

Angela Johns
CRESC 2018

Desired Outcomes

At the end of this session, participants will be able to:

- Detail the impact poverty has on the brain and learning.
- Utilize the SHARE factors to promote successful school experiences for students of poverty.



Today's Agenda

8:30-8:40 -- About Me

8:40-8:50 -- Poverty Statistics / Definition of Poverty

8:50-10:00 -- How Poverty Affects the Brain

10:00-10:15 -- Break

10:15-11:00 -- Engaging the Poverty Brain

11:00-12:00 -- Lunch

12:00-1:30 -- Engaging the Poverty Brain

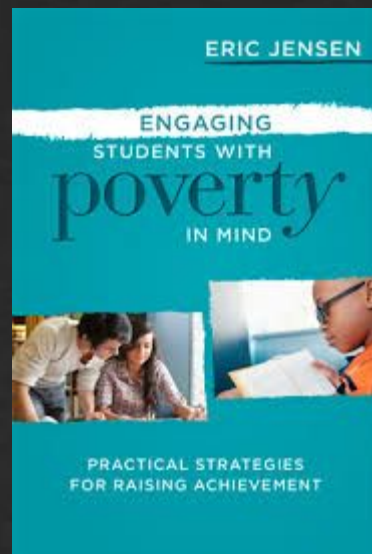
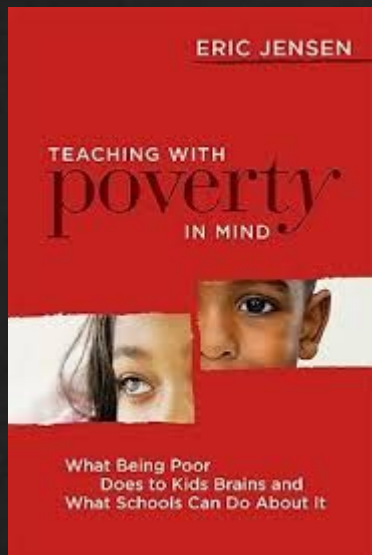
1:30-1:40 -- Break

1:40-2:30 -- SHARE Factors

2:30-3:00 -- Quiz and Reflection



Resources





My Story



Poverty Statistics

Poverty Statistics

United States

- U.S. Poverty Rate -- 14.5%
- 45.3 million live in poverty
- 33% are low-income; 97.3 million
- Poverty line: \$11,982; \$23,836 for family of four
- 1 in 5 children live in poverty (21.8%)

Poverty Statistics

Arkansas

- Population: 2,873,340
- Number in Poverty: 565,469
- 19.7% in poverty
- 21.8% of children in poverty

Poverty Statistics

Arkansas -- By County

- Craighead: 20.6%
- Poinsett: 28.1%
- Cross: 17.4%
- Mississippi: 24.9%
- Crittenden: 26.3%

“Our nation must address, and treat poverty, a condition that erodes our future and impedes any attempts at educational reform.”



~ Theresa Capra, *Poverty and Its Impact on Education: Today and Tomorrow*, The NEA Higher Education Journal

Poverty Defined

What is Poverty?

- “The **extent** to which an individual does without **resources.**” (Ruby Payne)
- “A **chronic** condition affecting **mind, body, and soul** resulting from multiple adverse synergistic **risk factors.** (Eric Jensen)

Poverty: How is it Defined?

- Many different life situations.
- Generational
- Working Class
- Immigrant
- Situational



The Effects of Poverty

Emotional and Social Challenges

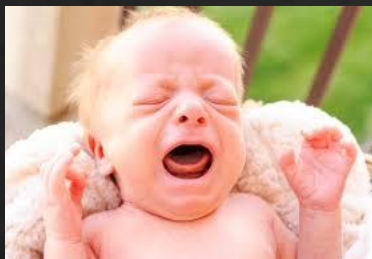
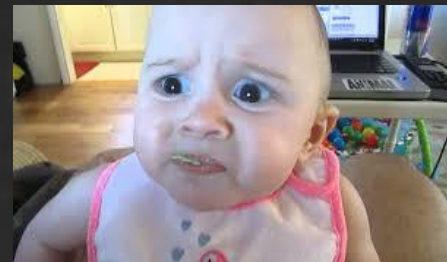
- Instability
- Insecurity
- Higher prevalence of:
 - teen motherhood
 - depression
 - inadequate health care
 - drug and alcohol abuse



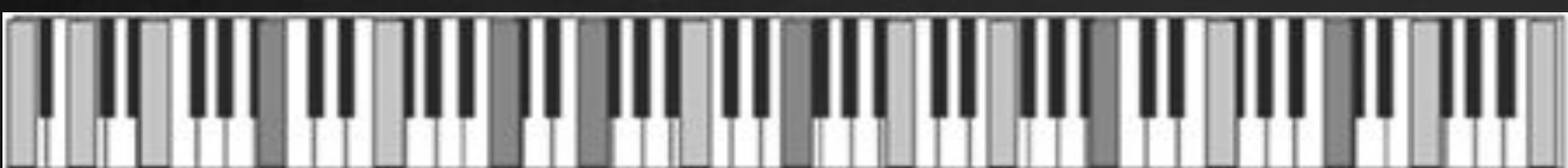
Emotions

At birth, we are hardwired with six emotions:

- Sadness
- Joy
- Disgust
- Anger
- Surprise
- Fear



All others have to be taught



Taught

- Humility
- Forgiveness
- Empathy
- Optimism
- Compassion

Hardwired

- Sadness
- Joy
- Disgust
- Anger
- Surprise
- Fear

Taught

- Sympathy
- Patience
- Shame
- Cooperation
- Gratitude

The emotional brain can be represented by a keyboard on which children from poverty use fewer keys than well-off children. The six responses represented by the darker shading on the keyboard and in the center box are hardwired in our DNA. The responses represented by the lighter shading must be taught.

AWESOME Insight #1

Kids “download” the negatives of chaos, disharmony, poor relationships, foul language, poor manners, and weak vocabulary just as quickly and just as automatically as they would any positive or enrichment input.



Acute and Chronic Stressors

- Leaves devastating imprint on their lives
- Chronic stress is toxic to the brain
- Low SES kids:
 - exposed to more stressors
 - more intense and longer lasting
 - have fewer coping skills



AWESOME Insight #2

50% of all absences are linked to chronic stress...so poor kids are more stressed and therefore miss more school.



Cognitive Lags

- Many poverty students enter school a step behind their well-off peers.
- Standardized intelligence tests show a direct correlation between poverty and lower cognitive achievement:
 - earn below average scores in reading, math, and writing.
- Set in motion a vicious cycle



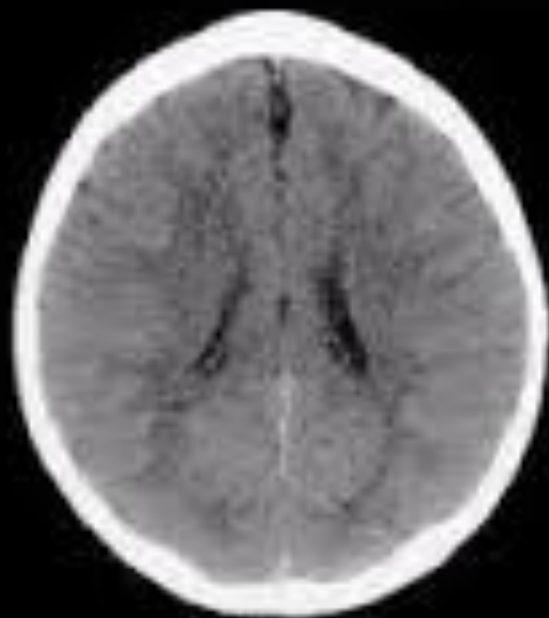
AWESOME Insight #3

By the age of three, children born into low-income families heard roughly **30-million** fewer words than their more affluent peers.



Poverty Brain vs Normal Brain

Is there a difference?



Normal



Extreme Neglect

The Academic Brain



- Kids are not born “A” students.
- Specific skill sets have to be developed.
- Certain experiences need to happen.
- The brain that does well in school has “sculpted by life” over time.

Health and Safety Issues

- Poverty children are more subject to malnutrition, environmental hazards, insufficient health care.
- Health and achievement overlap.
- Have more cells in their body “under siege” than middle and upper class families.
- Immune systems may diminish their ability to concentrate, learn, and behave appropriately.



Can Students from Poverty Succeed?

The Brain

Old Paradigm:

Brains stay the same;
kids stay the same.



New Understanding:

Brains can and do
change everyday, but if
the experiences stay
the same, so will the
brain. We MUST
change things.....

“The reasons things stay the same is because we stay the same. For things to change, we must change.”

~Eric Jensen

TIME 😊
FOR A
BREAK

BACK IN 15 MINUTES

Today's Agenda

8:30-8:40 _ About Me

8:40-8:50 -- Poverty Statistics / Definition of Poverty

8:50-10:00 -- How Poverty Affects the Brain

10:00-10:15 -- Break

10:15-11:00 -- Engaging the Poverty Brain

11:00-12:00 -- Lunch

12:00-1:30 -- Engaging the Poverty Brain

1:30-1:45 -- Break

1:45-2:30 -- SHARE Factors

2:30-3:00 -- Quiz and Reflection



Engaging the Poverty Brain: Part 1

The Gift of Education

- Educators can be a huge gift to students living in poverty.



Jigsaw Activity--“Nine Powerful Strategies”

<https://stantoncommunityschools.wikispaces.com/file/view/Nine+Powerful+Practices-Ruby+Payne.pdf/400792370/Nine%20Powerful%20Practices-Ruby%20Payne.pdf>

- Read and Discuss Assigned Section.
- Identify 3 Salient Points and 1 Strategy to Share (10 minutes)
- Share (10 minutes)



Jigsaw Activity--"Seven Factors of Engagement"

- Read and Discuss Assigned Section.
- Identify 3 Salient Points and 1 Strategy to Share (10 minutes)
- Share (10 minutes)



Lunch



Back in an hour

Today's Agenda

8:30-8:40 — About Me

8:40-8:50 — Poverty Statistics / Definition of Poverty

8:50-10:00 — How Poverty Affects the Brain

10:00-10:15 — Break

10:15-11:00 — Engaging the Poverty Brain

11:00-12:00 — Lunch

12:00-1:30 — Engaging the Poverty Brain

1:30-1:45 — Break

1:45-2:30 — SHARE Factors

2:30-3:00 — Quiz and Reflection



Engaging the Poverty Brain: Part 2

Engagement

“Teaching matters **more than any other factor** in a student’s school years.”



~ Eric Jensen

Engagement

“Research tells us that quality teaching can **completely offset the devastating effects** poverty has on student academic performance”

~Hanushek 2005



Erin Gruwell, *Freedom Writers*

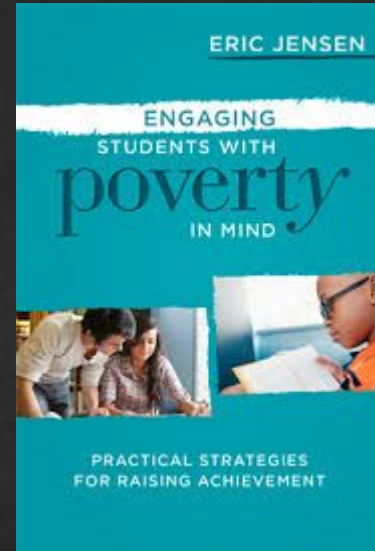
The Seven Engagement Factors

- Before we tackle the solutions, we have to know why so many teachers have problems working with these students.
- What is it that makes these students different or our reaction to them different?

Keep in mind.. All of these things can be **OVERCOME!!!**

The Seven Engagement Factors

1. Health and Nutrition
2. Vocabulary
3. Effort and Energy
4. Mind-Set
5. Cognitive Capacity
6. Relationships
7. Stress Level

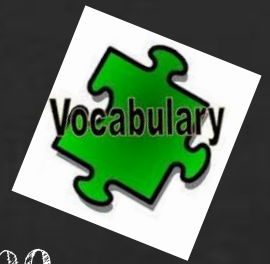


1. Health and Nutrition

- Two primary foods for the brain are oxygen and glucose; oxygen reacts with glucose to produce energy for cell function.
- Have students engage in slow stretching.
- Recess and physical education contribute to greater oxygen intake and better learning (Winter et al., 2007).—**Never withhold recess from students.**
- Physical activity will reduce some of the issues associated with poor nutrition and will build student health.



2. Vocabulary



- By age 3, children of professionals have twice the vocabulary of those living in poverty.
 - 30 million more words (Hart and Risley)
- Toddlers use more words talking to their upper/middle class parents, than low-SES moms use with their own children.
- Vocabulary **MUST** be a part of what you do for kids at school, especially with academic vocabulary.
- Strategies

3. Effort and Energy



- No one inherits the “lazy” gene.
 - Poverty students are often seem unmotivated--unmotivated states of mind
- Lack of hope and optimism.
- When teachers don't/won't connect with them personally they don't trust them.
 - “Kids don't learn from people they don't like.” Rita Pierson
- The teacher has the power.
- Waiting for Superman

4. Mind-Set

- “Smarts” are not set at a fixed amount from birth.
- When the teacher and student have a positive attitude about learning capacity, growth occurs.
- “Mental strength” or GRIT



5. Cognitive Capacity

- IQ is not fixed
 - Brains CAN and DO change
- Performance is lower because of environmental factors and issues early on
- These brains are ripe for engaging!



6. Relationships

- There is a need for positive adult relationships
- In homes of those from poverty, children commonly get twice as many reprimands as positive comments.
- Absent parents
- Stressed caregivers
- Instead of punishing bad behavior you will have to teach appropriate behavior.
 - Stop **TELLING** students what to do and start **TEACHING** them how to do it.

7. Stress Level

- Bills, family violence, overcrowding, harsher discipline
- Small amounts of stress are healthy, acute and chronic stress—known as distress—is toxic.
 - As toxic as substance abuse
- Leads to aggression
- Detachment and hopelessness
- Prevents the growth of new brain cells



Remember, students in poverty are not broken or damaged. In fact, human brains adapt to experiences by making changes—and your students can change.



The Five Rules for Engagement

1. Upgrade your Attitude
2. Build Relationships and Respect
3. Get Buy-In
4. Embrace Clarity
5. Show your Passion

Rule 1: Upgrade Your Attitude

- It is attitude and strategy
 - “I will have 100% of students engaged everyday!”
- Use affirmations
 - Carol Dweck has found that students who believe intelligence is a fixed quality are more likely to avoid challenging tasks, while students who believe intelligence can be developed with effort tend to be more successful.
 - Showing up on time, being seated on time, contributing to the class
- Small engagers
 - Get students up and moving
- Failure happens

Rule 2: Build Relationships and Respect

- Students don't care how much you know until they know how much you care.
 - You have the ability to engage every student every day.
- Share a bit of yourself everyday.
- Show them respect.
 - Even if you don't always get it in return—model, model, model!
- Upgrade your interactive language.
 - Make eye contact and affirm the good in them.

Rule 2: Build Relationships and Respect

- Teacher-student relationships have a whopping **0.72 effect size** when it comes to student achievement (Hattie, 2008)
- Students who have positive relationships with their teachers experience less stress, behave more appropriately, and feel more excited about learning.

Rule 3: Get Buy-In

- One of the most critical skills teachers can learn is never taught to them. **This skill is salesmanship.**
- Use the “bigger kid” challenge
- You need to “sell” learning to students
- Offer an incentive
- Start a competition
- Pique curiosity
- Lower the stakes
- Use their imagination

Rule 3: Get Buy-In

- Student motivation counts for a strong 0.48 effect size toward student achievement (Hattie, 2008).
- Highly effective teachers raise their odds of success by ensuring that students *want* to participate, *will* engage, and *choose* to learn.
- The best strategy to get buy-in is to create a hook that pulls the students in enough to at least try the next step.

Rule 4: Embrace Clarity

- Plan with a purpose
 - Not for the test
- Use fewer words
 - Speak with intention; pause instead of adding more words
- Say what you DO want, not what you DON'T want
- Give clear simple directions
 - Ranks #10 of all student achievement factors

Rule 5: Show Your Passion

- Be excited
 - You can make anything exciting!
 - https://www.youtube.com/watch?v=NRsa2pkU_Lk
- Change your voice
- Stay active
- Keep your eyes on them
- Be positive

TIME 😊
FOR A
BREAK

BACK IN 10 MINUTES

SHARE Factors

Schoolwide

*“The best way to launch an improvement effort is to increase the odds of success with the factor you have the most influence over: **the quality of teaching in your school.**”*

~Eric Jensen

Schoolwide Success Factors

Factors that high-achieving schools supporting students of poverty have in place:

- Support of the whole child
- Hard data
- Accountability
- Relationship building
- Enrichment mind-set



Students are In School for 1000 Hours and Out of School
for 5000.



How good is your 1000?

Support the Whole Child

- Survey your students' needs
- Develop community partnerships



Hard Data

- Develop a criteria for the data you need
- Gather only the data you need
- Analyze and share the data
- Develop a plan with strategies to use data



Accountability

- Increase control and authority of teachers
- Increase understanding of value
- Redesign the staffing roles



Relationship Building

- Build relationships among staff
- Build relationships among students
- Build student to staff relationships



Enrichment Mind-Set

- Create a strong environmental message
- Create a staff-wide enrichment mindset
- Always look for one more enriching edge



Classroom Level Success Factors

Classroom Level Success Factors

Factors that high-achieving classrooms have in place:

- Standards-based curriculum and instruction
- Hope building
- Arts, athletics, advanced placement
- Retooling the operating system
- Engaging instruction



Standards-Based Curriculum and Instruction

- Formative and summative assessments
- Using data to guide instruction
- Instructional grouping/differentiated instruction.



Action Steps



- Turn standards into meaningful units
- Identify core concepts, skills, and essential questions
- Chunk similar objectives together within units to help students make sense of their learning
- Create open-ended questions to guide instruction and learning
- Plan with the end in mind (UbD)
- Pre-assess to learn students needs/learning styles
- Be flexible

Hope Building

“However, the likely conclusion—the one that says children of poverty will necessarily do poorly in school—should not be automatic.” ~Eric Jensen



Action steps to ensure that doesn't happen include:

- Inventory students and staff
- Implement 24/7 Hope (if they don't have it, teach it)
- Monitor Results

How to Create Hope

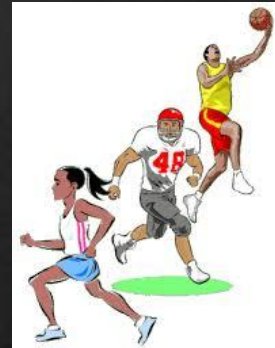
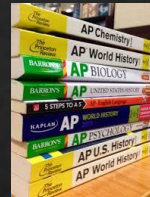


- Daily affirmations
- Telling students why they can succeed
- Providing needed academic resources (paper, pencils, computer time)
- Helping students to set goals and build goal-setting skills
- Telling true stories of hope about people to whom students can relate
- Offering help, encouragement, and caring when needed
- Teaching life skills in small daily chunks
- Avoid complaining about students' deficits. If they don't have it, teach it!
- Treating all the kids in your class as gifted

Arts, Athletics, and Advanced Placement



- Use challenging, relevant curriculum
- Implement strong arts (music, visual, and kinesthetic)
- Step up the activity
- Wider Advanced Placement curriculum
- Partner with a local community or university



Retooling the Operating System

Suggested Action Steps:

- Use 360 degree assessment
- Consult the data to determine strengths and weaknesses
- Develop Targeted plan
- Students need consistent, sustained support in skill building (Think: I do, We do, You do)
- Monitor Results and modify skill building as needed



Engaging Instruction



“Generally speaking, engaging instruction is any strategy that gets students to participate emotionally, cognitively, or behaviorally.”

~Eric Jensen

Suggested Action Plan:

- Find, recruit and train the best staff you can find
- Gather information from students
- Communicate the evidence and make a plan
- Add a strategy each week and monitor the progress

Tips for Making Instruction Engaging



- Switch up social groups regularly
- Incorporate movement (stations, switching etc..)
- Ask more compelling questions--driving questions
- Use energizers (games, dramas, simulations, demos, etc..)
- Be passionate. If you don't make it exciting and interesting, it won't be!
- Project-Based Learning--Student Voice and Choice

Champion

Contact Information

Angela Johns

870-578-2410 (school)

870-761-2267 (cell)

angela.johns@hbgsd.org

Thank you!!



Have a wonderful school year!