OBJECTIVE

▪ Explore Poverty
  ▪ Types of Poverty
  ▪ Characteristics of students from poverty
  ▪ Implications on brain development

▪ Schoolwide Strategies to overcome barriers

▪ Classroom Strategies to overcome barriers
TAMI’S BACKGROUND

Belaire Elementary
Six years teaching Grades 3 & 4
K-5 campus
Enrollment: 381 students
78% Economically Disadvantaged

Bowie Elementary
Four years teaching Gr 1, 5 & 6
K-5 campus
Enrollment: 447 students
48% Economically Disadvantaged

Fort Concho Elementary
Six years Instructional Specialist
K-5 GT Magnet campus
Enrollment: 484 students
49% Economically Disadvantaged

ESC Region 15
Starting my 3rd year
Federal Programs — Title I/NCLB
Serve 43 districts in 18 counties

RESOURCES

▪ Teaching with Poverty in Mind by Eric Jensen

▪ Engaging Students with Poverty in Mind by Eric Jensen

*This PowerPoint can be downloaded by accessing: www.escl5.net/nclblivebinder *
DISCLAIMER

- There will be LOTS of generalized statements describing low-income families. Please remember that these statements do not describe ALL low-income families. Research has shown that low-income families are more likely than moderate or high income families to fit these descriptions.

DISCLAIMER

- Also...I am no neuro-scientist! I am only reporting my understanding of the research.
**WHAT DO WE MEAN BY “POVERTY”?**

Poverty Thresholds for 2015 by Size of Family and Number of Related Children Under 18 Years

<table>
<thead>
<tr>
<th>Size of family unit</th>
<th>Related children under 18 years</th>
<th>None</th>
<th>One</th>
<th>Two</th>
<th>Three</th>
<th>Four</th>
<th>Five</th>
<th>Six</th>
<th>Seven</th>
<th>Eight or more</th>
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<tbody>
<tr>
<td>One person (unrelated individual)</td>
<td>12,331</td>
<td>11,367</td>
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<td></td>
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<td>Under 65 years</td>
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<tr>
<td>65 years and over</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Two people</td>
<td>15,871</td>
<td>16,337</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Householder under 65 years</td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Householder 65 years and over</td>
<td>14,326</td>
<td>16,275</td>
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<tr>
<td>Three people</td>
<td>18,540</td>
<td>19,078</td>
<td>19,069</td>
<td></td>
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<tr>
<td>Four people</td>
<td>24,447</td>
<td>24,847</td>
<td>24,036</td>
<td>24,120</td>
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<tr>
<td>Five people</td>
<td>29,492</td>
<td>29,911</td>
<td>28,995</td>
<td>28,286</td>
<td>27,853</td>
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<tr>
<td>Six people</td>
<td>33,009</td>
<td>34,044</td>
<td>33,242</td>
<td>32,676</td>
<td>31,070</td>
<td>31,078</td>
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<tr>
<td>Seven people</td>
<td>39,017</td>
<td>39,259</td>
<td>38,421</td>
<td>37,839</td>
<td>36,745</td>
<td>35,473</td>
<td>34,077</td>
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<tr>
<td>Eight people</td>
<td>43,637</td>
<td>44,023</td>
<td>43,230</td>
<td>42,536</td>
<td>41,551</td>
<td>40,300</td>
<td>39,099</td>
<td>38,668</td>
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</tr>
<tr>
<td>Nine people or more</td>
<td>52,493</td>
<td>52,747</td>
<td>52,045</td>
<td>51,457</td>
<td>50,490</td>
<td>49,159</td>
<td>47,956</td>
<td>47,658</td>
<td>45,823</td>
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</table>

Source: U.S. Census Bureau

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**WHAT DO WE MEAN BY “POVERTY”?**

| Family Size | Annually | | Monthly | | Twice per Month | | Every Two Weeks | | Weekly | |
|-------------|----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 1           | $15,644  | $217            | $1,287         | $644            | $916            | $594            | $646            | $297            | $1,425          |
| 2           | $20,526  | $283            | $1,756         | $868            | $1,235          | $801            | $1,140          | $401            | $1,570          |
| 3           | $26,208  | $357            | $2,184         | $1,092          | $1,554          | $1,008          | $1,435          | $504            | $1,918          |
| 4           | $33,590  | $441            | $2,633         | $1,317          | $1,874          | $1,215          | $1,730          | $668            | $2,365          |
| 5           | $36,572  | $521            | $3,081         | $1,541          | $2,199          | $1,422          | $2,024          | $711            | $2,612          |
| 6           | $42,354  | $601            | $3,550         | $1,765          | $2,512          | $1,625          | $2,519          | $835            | $3,169          |
| 7           | $47,749  | $681            | $3,990         | $1,990          | $2,832          | $1,837          | $2,614          | $913            | $3,207          |
| 8           | $53,157  | $761            | $4,480         | $2,215          | $3,152          | $2,045          | $2,919          | $1,023          | $3,455          |
| 9           | $58,565  | $841            | $4,981         | $2,441          | $3,473          | $2,253          | $3,206          | $1,127          | $3,603          |
| 10          | $63,973  | $921            | $5,532         | $2,667          | $3,794          | $2,461          | $3,502          | $1,231          | $3,751          |
| 11          | $69,381  | $1003           | $6,083         | $2,893          | $4,125          | $2,669          | $3,798          | $1,335          | $4,189          |
| 12          | $74,789  | $1084           | $6,634         | $3,119          | $4,436          | $2,857          | $4,694          | $1,439          | $4,247          |

For each additional family member add:

+ $5,408 + $7,696 + $8,471 + $8,642 + $9,226 + $9,321 + $9,708 + $9,926 + $10,04 + $1,148
TYPES OF POVERTY

- **Situational Poverty** - sudden crisis/loss; often temporary (divorce, illness, death, environmental disaster)

- **Generational Poverty** - at least two generations have been born into poverty; not equipped with tools to move out of their situations

- **Absolute Poverty** - rare in the US - scarcity of necessities (shelter, running water, food) - focused on day-to-day survival

- **Relative Poverty** - family whose income is insufficient to meet its society's average standard of living

- **Urban Poverty** - metropolitan areas of 50,000 or more people; deal with crowding, violence, noise and dependent on large-city services

- **Rural Poverty** - populations below 50,000; less access to services, support for disabilities, quality education opportunities

HOMES OF POVERTY
“Kids raised in poverty are more likely to lack — and need — a caring, dependable adult in their lives, and often it’s teachers to whom children look for that support.”

Eric Jensen

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**NATURE OR NURTURE?**

*Interesting Fact:*

Studies have shown that our DNA is responsible for 30–50% of our behaviors.

This leaves 50–70% explained by our environments.
OTHER FACTORS IMPACTING DEVELOPMENT

Before Birth:
- Lack of Quality prenatal care
- Exposure to toxins and stress

After Child is Born:
- Environment can affect receptors in our cells that send messages to genes.
- This can switch on and off signals that can either strengthen or impair aggression, immune function, learning and memory.
EFFECTS OF POVERTY

- Emotional and Social Challenges
- Acute and Chronic Stressors
- Cognitive Lags
- Health and Safety Issues

EMOTIONAL & SOCIAL CHALLENGES

These emotions are “hardwired” or naturally occurring:

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

These emotions must be taught:

- All other Emotions!
- Humility
- Embarrassment
- Forgiveness
- Empathy/Sympathy
- Optimism
- Compassion
- Patience
- Shame
- Cooperation
- Gratitude...
TO BE EMOTIONALLY HEALTHY...

Children under 3 years old need:
- A strong, reliable primary caregiver who provides consistent and unconditional love, guidance & support
- Safe, predictable, stable environment
- Ten to 20 hours each week of harmonious, reciprocal interactions (most crucial during the first 6-24 months of infants’ lives)
- Enrichment through personalized, increasingly complex activities
- Children from poverty are much less likely to have these needs met.

IMPACT ON BRAIN DEVELOPMENT

Deficits in emotional development inhibit the production of new brain cells, alter the path of maturation and rework the healthy neural circuitry in children’s brains – this predisposes them to emotional dysfunction.
A STUDY IN AN IRISH ORPHANAGE...

10,272 infants with minimal/absent maternal nurturing (25 year period)

Only 45 survived.

Most of those survivors grew into pathologically unstable and socially problem-ridden adults.

EFFECTS OF POVERTY

▪ Emotional and Social Challenges
▪ Acute and Chronic Stressors
▪ Cognitive Lags
▪ Health and Safety Issues
**TYPES OF STRESS**

- **Acute Stress** - severe, intense stress resulting from exposure to such trauma as abuse or violence
  - Leads to aggressive “in your face” behavior.
  - Student can feel in control and take charge.
  - It is a survival strategy – fight first, ask questions later.
  - Talking back to teacher, getting in teacher’s face, showing inappropriate body language or facial responses

- **Chronic Stress** - high stress sustained over time
  - Leads to opposite effect: increased sense of detachment and hopelessness over time.
  - Likely to give up or become passive/uninterested in school
  - Behaviors include: failure to respond to questions/requests
  - Passivity, slumped posture
  - Disconnection from peers or academics
EXAMPLES OF COMMON STRESSORS

▪ Overcrowded, substandard housing or unsafe neighborhoods
▪ Enduring community of domestic violence
▪ Separation or divorce
▪ Loss of family members
▪ Experiencing financial strain
▪ Forced mobility
▪ Material deprivation

Fact: in any given year, more than half of all poor children deal with evictions, utility disconnections, overcrowding, or lack of a stove or refrigerator compared with only 13 percent of “well-off” children.

ADDITIONAL STRESSORS

▪ Lack of proper supervision
▪ Physical neglect or abuse
▪ Inadequate daycare and schools
▪ Difficulties in forming healthy friendships
▪ Vulnerability to depression

......all of these combine to add debilitating stress upon a developing child.
IMPACT ON BEHAVIOR/PERFORMANCE

- Children from stressful homes have a tendency to direct stress into disruptive behavior at school.

- Impulsivity is a common disruptive behavior among low-SES students — this is an exaggerated response to stress that serves as a survival mechanism.
  - In conditions of poverty, those most likely to survive are those who have an exaggerated stress response.

Each risk factor in a student’s life increases impulsivity and diminishes his or her capacity to defer gratification!
EFFECTS OF POVERTY

▪ Emotional and Social Challenges
▪ Acute and Chronic Stressors
▪ Cognitive Lags
▪ Health and Safety Issues

THE BRAIN’S “OPERATING SYSTEM”

▪ Executive System (Prefrontal)
  ▪ Defer gratification, create plans, make decisions, hold thoughts, “reset” brain’s rules for behavior

▪ Language System (Left perisylvian)
  ▪ Foundation for reading, pronunciation, spelling and writing skills

▪ Memory System (medial temporal)
  ▪ Allows us to process learning and store the learning

▪ Spatial Cognition System (parietal)
  ▪ Ability to mentally represent and manipulate spatial relations between objects.
  ▪ Organizing, sequencing, visualizing information.
  ▪ Essential for math, music and organization

▪ Visual Cognition System (occipitotemporal)
  ▪ Pattern recognition and visual mental imagery.
  ▪ Translate visual memory into mental images
How do the brains of children from poverty differ?

**Note:** Effect-size differences are measured in standard deviations of separation between low- and middle-income 5-year-olds.

Daily parent-child speech interactions

![Graph showing daily parent-child speech interactions by age and socio-economic status (SES).](image)
EFFECTS OF POVERTY

- Emotional and Social Challenges
- Acute and Chronic Stressors
- Cognitive Lags
- Health and Safety Issues

RESEARCH HAS SHOWN....

- The lower the income, the more likely premature, low birth weight births, or increase number of disabilities
  Expectant mothers are more likely to...
  - Live/work in hazardous environments, pesticides
  - Smoke, drink alcohol, or use drugs during pregnancy (all linked to prenatal issues and birth defects)

- Low-income children have poorer physical health — asthma, respiratory infections, tuberculosis, ear infections and hearing loss, obesity.
**HOW DOES THIS AFFECT YOUR CLASSROOM?**

The greater incidence of health issues among low-income students leads to increased:

- School absences
- Duration of school absences
- Tardiness rates
- Incidents of illness during class
- Rates of undiagnosed and/or untreated health problems or disabilities

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**CHANGING THE BRAIN FOR THE BETTER**

The Six Must-Have’s for the Brain’s Academic Operating System:

1. Ability and motivation to defer gratification and make effort toward long-term goals
2. Auditory, visual and tactile processing skills
3. Attentional skills that enable students to engage, focus, and disengage as needed
4. Short-term and working memory capacity
5. Sequencing skills
6. A champion’s mind-set and confidence
HOW CAN WE HELP??

Develop an enrichment counterattack!

- Enrichment does not mean “more” or “faster” schooling. It means rich, balanced, sustained, positive, and contrasting learning environments. That’s what will change students’ lives over the long haul.

BENEFITS OF ACADEMIC ENRICHMENT FOR CHILDREN FROM POVERTY
Kindergarten to 21 Years Old

Increased:
- Intelligence (IQ)
- Reading and Math Skills
- Academic Locus of Control
- Social Competence
- Years in School, Including College
- Full-Time Employment

Decreased:
- Grade Repetition
- Special Education Placement
- Teen Pregnancy
- Smoking and Drug Use
“We must stop using low IQ as an excuse for giving up on children and instead provide positive, enriching experiences that build their academic operating systems. Students’ brains don’t change from more of the same. We must believe that change is possible; understand that the brain is malleable and will adapt to environmental input; and be willing to change that input, too.”

Eric Jensen

WHAT SCHOOLWIDE SUCCESS FACTORS DO HIGH POVERTY, HIGH ACHIEVING SCHOOLS HAVE IN COMMON?
Clear curriculum choices
Caring staff and faculty
Collaborative decision making
Emphasis on reading skills
Orderly climate
High expectations
Regular teacher-parent communication
Shared mission and goals

Student goals, class management
Ongoing data collection & formative assessments
Data-driven instruction
Unequivocal focus on academic achievement with a no-excuses mindset
Strong focus on student achievement

SCHOOLWIDE SUCCESS FACTORS

Belief that ALL children can succeed at HIGH LEVELS
SEVEN ACHIEVEMENT KILLERS

Mistake #1 – Overdoing Pep Talks and Hot Air

Share a clear, coherent vision of hope that is supported by doable, budgeted steps.
Instead of repeating speeches about how we can and should do better, explain why hope is justified. Talk about what will happen, when it will happen and how it will happen. If the staff isn't buying, the change won't happen.

SEVEN ACHIEVEMENT KILLERS

Mistake #2 – Planning Endlessly

It's good to plan, but don't let the planning take the place of doing.

Karen Mcquestion

Your plan should assign responsibilities to staff members, communicate when teams will be assembled, and specify how ongoing data collection and morale building will be addressed.
SEVEN ACHIEVEMENT KILLERS

Mistake #3 – Putting Kids First and Staff Last

Put staff first on priorities because teacher quality matters. Remember that excellence takes time. Ensure teachers feel appreciated and supported by administration.

SEVEN ACHIEVEMENT KILLERS

Mistake #4 – Creating a Climate of Fear

Teachers work best when they feel free to make “errors of enthusiasm.” Avoid a mode of compliance (“just tell me what to do and I’ll do it”) and opt for a mode of creativity, innovation, and risk taking.
**SEVEN ACHIEVEMENT KILLERS**

**Mistake #5 – Measuring Improvement Solely Thru Test Scores**

Look for “soft” signs of success:
- Teachers/Students helping each other out
- School spirit
- Affection shown
- Smiles on faces!
- Small celebrations
- Fewer fights and upsets
- Better social skills among students

**SEVEN ACHIEVEMENT KILLERS**

**Mistake #6 – Treating Symptoms, Not Causes**

Avoid wasting time on solutions that only address symptoms — find the root cause and fix it.
SEVEN ACHIEVEMENT KILLERS

Mistake #7 – Counting on Big Wins Quickly

Improvement is not a race or marathon. It is a process of life.

Look for and celebrate daily practices that eventually turn the tide.

CLASSROOM-LEVEL SUCCESS FACTORS

- Standards Based Curriculum & Instruction
- Hope Building
- Arts, Athletics, and Adv. Placement
- Engaging Instruction
ENGAGING INSTRUCTION

▪ Switch up social groups (study buddies, assigned teams, whole-class activities, project partnerships)
▪ Incorporate movement (learning stations, class switching, assemblies)
▪ Ask more compelling questions — avoid unanswerable rhetorical questions.
▪ Appreciate and acknowledge every response
▪ Use energizers, games, drama, simulations, and other demonstration strategies
▪ Keep the content alive with call-backs, hand raisers, stretching and unfinished sentences and review questions
▪ Be passionate about what you teach!
Tami Knight
tami.knight@escl5.net
325-481-4067

SCHOOLWIDE SUCCESS FACTORS

- Support of the Whole Child
- Hard Data
- Accountability
- Relationship Building
- Enrichment Mind-Set
SCHOOLWIDE SUCCESS: SUPPORT OF THE WHOLE CHILD

“Until your school finds ways to address the social, emotional, and health-related challenges your kids face everyday, academic excellence is just a politically correct but highly unlikely goal.”

- Students who get “wraparound” support are able to stop dwelling on their problems and limitations and start focusing on the educational opportunities available to them.

- What might this look like?

  - Academic and alternative tutoring
  - Academic, career, or mental health counseling
  - Access to medications
  - Child care for teen parents
  - Community services (housing and utilities)
  - Dental care
  - Life skills classes in finances, health, housing, etc.
  - Medical care, both urgent and long term
  - Psychology (diagnosis and therapy)
  - Reading materials
  - Transportation for when students stay late for after-school help

  - Include parents and provide adult support and outreach
  - Develop community partnerships

SCHOOLWIDE SUCCESS: HARD DATA

“Successful schools generate their own high-quality, useful data on an ongoing basis and provide immediate feedback to both students and teachers.”

- Action Steps:
  - Gather data: Both generally and specifically, how are we doing?
  - Gather data: To what degree are we serving the needs of all students?
  - Gather data: What are we good at, and where do we need help?
  - Develop plans to apply data — set goals based on lowest areas, work with staff to find better ways to teach necessary skills, create specific plan and put it into action
**SCHOOLWIDE SUCCESS: ACCOUNTABILITY**

- It is estimated that out of each student's 168 hours/week, only 28% is spent at school. We must have a sense of urgency — we cannot waste a single class or single school day.
  - Can't afford to waste day for frivolous suspension
  - Can't afford to bore a student or fail to engage in class

  “School needs to be a nonstop bobsled run, full of activity, challenge, correction, support and enrichment. You need to challenge students to do their best every hour of every day they are in your charge.”

**SCHOOLWIDE SUCCESS: ACCOUNTABILITY**

**Action Steps:**

- Increase teachers' control and authority
  - Teachers have input in: team teaching, staff development, curriculum and use of materials, budgeting decisions, personnel changes, Schoolwide decision making

- Value your teachers
  - Acknowledge staff at formal meetings, in classroom and hallways; celebrate your teachers — notice when a teacher goes above, call local paper for a story on a standout teacher
  - Stop wasting staff time in meetings to deliver info that could be handled via email

- Redesign staffing roles
  - Provide teacher support services (health services, time off)
  - Reassign support staff
  - Provide common planning time
  - Ensure enough time and money for joint planning
**SCHOOLWIDE SUCCESS: RELATIONSHIP BUILDING**

Action Steps:

- Consider looping — Most successful: Elementary @ 3 year span; Secondary @ 2 year span
- Offer Mentors — longevity is important!
- Build relationships among staff, students and student-staff