

What Do I Gotta' Learn?

Helping Students Raised in Poverty

Achieve Success

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“Poverty during a child’s preschool years appears to have the greatest impact on his/her academic achievement. Even when we account for the educational level of parents, the chances that children will be placed in special education or retained in grades increase by 2-3% for every year they live in poverty.”
Sherman, 1994

Key Points about Poverty

1. Generational and situational poverty are different.
2. Individuals bring with them the hidden rules of the class in which they were raised.
3. Schools and businesses operate from middle-class norms and values.
4. We must understand the hidden rules of our students and teach them the rules that will make them successful at school and at work providing support, insistence and expectations.
5. Two things that help one move out of poverty are education and relationships.
6. To move from poverty to middle class one must, for a period of time, give up current relationships for achievement.

Payne, 2003

Major Barrier to School Success: Language

- Language ability and the number of abstract words one has access to is directly related to the level of education which is related to economic class. It’s during the first three years of life that thinking structures are built in the brain. Research shows that children raised in welfare homes get a language experience that doesn’t prepare them very well for the abstract, cognitive demands of school.

Average Words Heard per Hour

Child of Welfare Family	616
Child of Working Class Family	1,215
Child of Professional Family	2,153

Parent talk defines and labels what children notice and think about the world, their family, and themselves and suggests the interest and importance of various objects, events and relationships.

Average Parent Affirmatives : Prohibitions per Hour

Welfare Family	5 : 11
Working Class Family	12 : 7
Professional Family	32 : 5

- Infrequent interactions along with frequent prohibitions/disapprovals limit a child’s opportunities to learn words and to explore actions and objects.
- By the time children are 3 years old, trends in amount of talk, vocabulary growth, and style of interaction are well established and follow the patterns of the parents.

Hart & Risley, 1995

The use of precise vocabulary to explain and identify is important. Without precise words, the ability to retrieve and use information is severely limited.

- Children in middle class homes hear more specific words, more explanations, more abstract language, have more experience with choices and decision-making, and have more experiences.
- With limit exposure to various experiences, low-SES children do not bring a “memory bank” of experiences to school with them and thus have very low stores of information.
- Experiences = vocabulary

Judith Montgomery

Major Barrier to School Success: Literacy Skills

“Unfortunately, too many of our children who live in poverty have difficulty in the early years of schooling, primarily because of the failure to learn to read.”

Handbook of Early Literacy Research, p. 192

Emergent Literacy -learning about print & sound

Precursors to **decoding** success:

Print knowledge
Phonological awareness
Emergent writing
Letter-sound relationships

Precursors to **comprehension** success:

Grammar
Vocabulary
Narrative Structure

Early Literacy – Learning to Read

Decoding: breaking the code that maps written words to spoken words and applying the alphabetic principle.

Conventional Literacy – Reading to Learn

Comprehension: understanding what is read and applying comprehension strategies.

Evidence Based Practices for Promoting Emergent Literacy Skills

- Adult-Child Shared Storybook Reading
- Literacy Enriched Play
- Structured Phonological Awareness Program

Shared Storybook Reading

- Easy to implement
- Valued as an accepted form of teaching
- Facilitates positive interaction for adult & child
- Child is active participant, not passive listener
- Rich source of information
- Opportunity to learn language in a developmentally sensitive context
- Fosters vocabulary development

- Encourages more sophisticated responses
- Interactions may focus on oral language, print knowledge, alphabet knowledge or phonological awareness
- May target multiple skills
- Encourages non-literate family to interact with child around a book
- May be used with photos and experiences

Dialogic Reading
(developed by Whitehurst & colleagues)

- Most effective when both teachers and parents actively use the technique
- For 2- and 3-year olds, focus questions on individual pages of book, ask for description of objects, actions and events on the page (PEER)
- For 4- and 5-year olds, increase the focus on the narrative as a whole or relations between book and child's life (CROWD Prompts)

Peer Strategy

- Prompt by adult for child to respond
- Evaluate the child's response
- Expand the child's response
- Repeat the initial question to check that the new meaning is understood

CROWD Prompts

- Completion questions, fill-in response
- Recall questions related to the story content
- Open-ended questions to focus on details and increase the amount of talk about the book
- Wh-Questions teach new vocabulary
- Distancing questions help bridge the book material to real-life experiences

Literacy Enriched Play Settings

Studies show significant increases in children's literacy-related play when literacy props are integrated into play centers, especially when adult mediation is involved. Written language awareness, alphabet knowledge and environmental print recognition all increase.

Phonological Awareness

- Children from low SES homes tend to perform less well on measures of phonological sensitivity than children from high SES homes.
- Structured activities are effective with small-group and individual settings. Songs, chants, and word-sound games which are more play-based and less structured are better suited for large-group activities to develop sensitivity to the sound structure of language.

Story Structure

Cognitive research shows that early memory is linked to the predominant story structure the individual knows.

- Episodic, emotionally-significant, random approach

or

- Sequential, cause – effect, consequencesOSLHA

Major Barrier to School Success: Executive Functioning

EF are those cognitive functions that enable individuals to engage in goal-directed or problem solving behavior.

EF is disproportionately worse in children from low SES and difficulty with these skills may account for up to half of the gap in school readiness.

Prefrontal Cortex

- Controls working memory, behavioral self-regulation, cognitive control, problem solving ability, and reward processing.
- EEG patterns in poor children's brains similar to adults who have had strokes (lesions).
- Remediable with direct instruction: teach planning, procedural steps, systematic processes.

The Critical “Must Haves” of EF

- Attention - the most basic foundational EF process (other than being alert)
- Inhibition - no other EF works well without inhibition
- Working memory - dependent upon attention

Jill Fahey, Eastern Illinois University

Components of EF

- Inhibiting actions
- Attending selectively
- Demonstrating emotional control
- Restraining and delaying responses
- Setting goals
- Planning for the future
- Organizing
- Shifting flexibly between activities

Packer, 2004, *What are Executive Functions?* www.schoolbehavior.com

The more stressful the environment, the less effective is working memory and EF.

Those in lower SES have:

- Greater levels of stress
- Less access to cognitively stimulating materials and experiences
- Parents from poverty who are not able to pass on well-developed EF skills to their children

Ruby Payne, 2009

“When these children enter kindergarten, school is a culture shock.” Carolyn Weiner, 2001

- As part of learning successful EF skills, many low SES children need to learn how to ‘do school’.

Celeste Roseberry-McKibben

- Children must experience external structure until they can create their own internal structure.
- EF development is prolonged and continues until the mid-20’s age range.

If an individual **has not developed the ability to plan**, then he cannot **predict**.

If he cannot predict, then he cannot **identify cause and effect**.

If he cannot identify cause and effect, he cannot **identify consequence**.

If he cannot identify consequence, he cannot **control impulsivity**.

If he cannot control impulsivity, he **has an inclination toward criminal behavior**.

R. Payne

Ways to Increase Achievement

- Children must feel physically safe.
- Children must feel invited and welcome.
- Children must be master-taught.

A Framework for Successful Interventions

- Teaching Principles
- Researched-Based Interventions
- Language Registers
- Academic Language
- Vocabulary
- Grammar
- Self-Talk, Planning, Organizational Skills

Teaching Principles – NEA C.A.R.E.:

Strategies for Closing Achievement Gaps

- **Culture** – the sum total of one’s experiences, knowledge, skills, beliefs, values, language, and interests. Learning is greatest when the cultures of home and school connect.
- **Abilities** – developed through cultural experiences which then affect thoughts and expressions. Intelligence is multi-dimensional and modifiable.
- **Resilience** - displayed when protective factors change a person’s response to risk factors (such as poverty). Resilient students: socially competent, problem solvers, sense of future
- **Effort** – the energy used to reach goals. At its highest with teacher encouragement and high expectations.

Research Based Interventions

- Ruby Payne Resources
 - *Understanding Learning: the How, the Why, the How*
 - *Research-Base Strategies: Narrowing the Achievement Gap for Under-Resourced Learners*
- **Mediation** - developed by Reuven Feurstein
 - Mediation of the mind permits beginning learners to develop abstract structures or representational systems which illustrate common understandings that are needed to communicate.

The Steps of Mediation

- Point out the stimulus - the WHAT
- Give it meaning - the WHY
- Provide a strategy - the HOW

Language Registers

- Formal – the word choice and sentence structures in in educational and business communities
- Casual – used between friends, about 400 – 800 words, few abstract words
- Consultative – a mixture of formal and casual registers

Academic Language

Zwiers, 2009

Set of words, grammar, and organizational strategies used to describe:

- Complex ideas - relationships between characters, cause/effect
- Higher-order thinking processes - analyze, evaluate, synthesize, persuade, predict, explain, compare, interpret, infer, imply
- Abstract concepts - executive functioning skills; pump up with dialogic and interactive approaches

Vocabulary

- ❖ The tool our brain uses to think.
- ❖ The biggest barrier to lack of school success.
- Model formal/consultative registers
- Translate current language
- Useful techniques
- Tier 2 words

• Teach thinking verbs

• Multiple meaning words

• Signal words

• Critical prefixes

• Word sorts

Grammar

- ❖ a key component of writing competency
- ❖ based upon formal register
- Visual models for cueing formal sentences
- Sentence length
- Teach conjunctions
- Teach adverbs and prepositions

Self-Talk, Planning, Organization

Directly teach using games and procedural tools

- Character portrayal
- Negative questions
- Directly teach planning

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