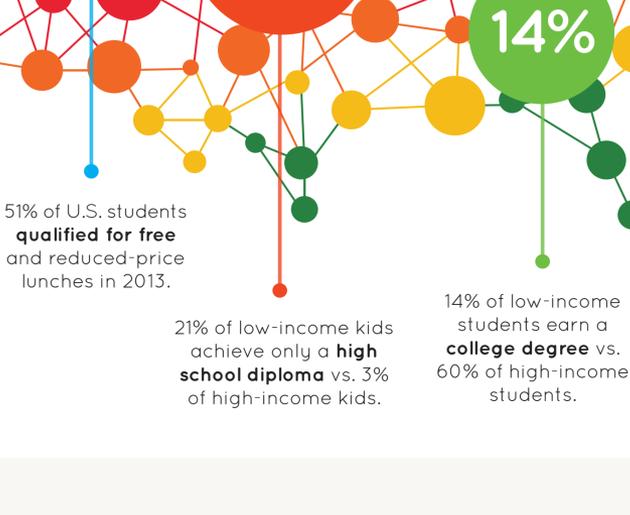


# Why Learning Is Harder When You're Poor

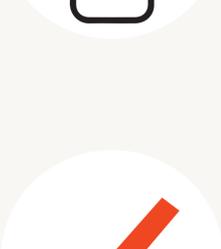
The Truth About How Poverty Sets Kids Back at School & What We Can Do to Help

## It's a Big Challenge



## Poverty & the Brain

A child's family situation and socioeconomic status can cause real brain differences.



### BABIES

born into poverty are more likely to be exposed to poor nutrition, environmental toxins and violence. These outside stressors can affect brain development and learning.



### INCREASES

in parental education and family income are linked to increases in the surface area of numerous brain regions, including those used for language and executive function.



### VOCABULARY

By age 4, children in poverty hear 13 million words spoken in the home. Those in working-class families hear 26 million and kids in a professional family hear 45 million words.



### ONGOING TRAUMA

such as food insecurity and unstable housing can hurt the development of neural connections, which regulate emotion and impulse control.



### IMPAIRED FLEXIBILITY

Being impoverished affects the development of the prefrontal and limbic systems of the brain, affecting the ability to switch gears, multitask and change strategies based on feedback.



### LESS GRAY MATTER

Low-income kids showed 7% to 10% less gray matter in three key areas of the brain used for academics: the frontal lobe (executive memory), the temporal lobe (memory and language), and the hippocampus (long-term memory).



### DYSLEXIC SIMILARITIES

Research shows that the brain structures of low-income children reflect many of the same patterns as those with dyslexia.

**HOWEVER, BRAIN DEVELOPMENT IS NOT PREDETERMINED BY POVERTY.**

**TEACHERS** can play a huge role by being consistent, caring adults.

Areas of the brain affected by trauma remain **PLASTIC** through adulthood.

**CONSISTENT PRACTICE** and exposure to **vocabulary, critical thinking, and problem solving** can help to **nurture positive brain development.**



## 8 Things Teachers Can Do

### PROVIDE ENCOURAGEMENT.

Break tasks into smaller steps and provide frequent feedback so kids can see progress and build confidence.

1

### BUILD VOCABULARY

by reading and talking about books, creating word walls, fostering discussion, and offering practice through role-play and games.

2

### RESEARCH

shows that consistent exposure to **PHONEMES** can help to nurture the necessary pathways to literacy in the brain.

3

### USE

**MEMORY EXERCISES** to help foster neural connections and encourage executive functions.

4

### BE FLEXIBLE

When students have trouble, look beyond the behavior and remember the possible trauma underlying their action. **ACCOMMODATE**, if necessary, to get them to accomplish the task.

5

### ALLOW

**CHOICE.** Kids in poverty don't often feel a sense of control in their own lives. In the classroom, give options that let them build skills, set goals and increase their sense of agency.

6

### EXPLAIN

**PATHWAYS.** Show the link between the task and the result. Give students an activity to try out before diving into the exercise or show them another student who has completed it.

7

### EMBRACE

**GROWTH.** Create a positive emotional environment in the classroom and explain how all brains are capable of learning under the right conditions. Exude optimism, enthusiasm for learning and hope for their futures.

8

Sources: National Center for Education Statistics, Nature, AFT, JAMA, Center on the Developing Child at Harvard University, Teachers College at Columbia University, Noble



WE are TEACHERS

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