

PROJECT OVERVIEW

Closing the achievement gap is an important focus in schools. Results on standardized tests indicate students of low socioeconomic status (SES) consistently perform lower in reading and mathematics. Results from scientific studies demonstrate that the conditions under which impoverished children live affects the development of specific areas of their brain. The areas affected result in impairment of working memory, coping skills and negatively impact the student's ability to learn and manage daily life. The good news is these brain development delays can be reversed.

NDE Standard 4e; Culture for Learning states "The principal creates a school culture that enhances the academic social, physical and emotional development of all students by identifying barriers to student learning and development and devise strategies to reduce or eliminate them." (NDE Teacher and Principal Performance Framework). It is important for administrators to understand that implementing targeted interventions can decrease gaps in achievement shown in reading and mathematics assessments. This project will provide resources and a plan of action to help implement these interventions. Educators cannot only take some of the stress out of learning but can help heal the damage students suffer from stress in other areas of their lives.

ACTION PLAN

1. Educate

- Present information to staff about how distress affects students living in poverty.

2. Plan

- Create a committee or use existing leadership structure to examine current district/school policy.
- Determine ways to increase sensory motor activities, increase student control and/or teach coping skills for dealing with stress.

3. Baseline

- Choose baseline data to determine impact of plan: time on task, attendance and/or office referrals.

4. Implement

- Initiate plan with commitment and fidelity.

5. Monitor and Evaluate

- Go back to baseline measures and compare to current data to determine effectiveness of plan.
- Continue or tweak plan in response to data.

RESOURCES

Increase Movement:

Guaranteed recess for every student every day
Remove barriers from extra curricular activities

- www.activelivingresearch.org
- www.gonoodle.com
- <http://teachtrainlove.com/20-brain-break-clips-fight-the-fidgeting/>
- www.pinterest.com/12rey16/brain-breaks/
- <http://www.actionforhealthykids.org/what-we-do/programs/game-on/about-game-on/get-involved/640-brain-breaks-and-energizers>
- <http://www.minds-in-bloom.com/2012/04/20-three-minute-brain-breaks.html>

Teach Coping Skills:

If/Then Plans

- http://www.copingskills4kids.net/For_Parents_Educators.html
- http://www.copingskills4kids.net/7_Key_Factors.html

More Student Control:

Student Council/Advisory Board

- <http://www.pbisworld.com/tier-1/teach-coping-skills/>
- <http://www.edutopia.org/blog/five-strategies-more-voice-choice-students-rebecca-alber>

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REVIEW OF LITERATURE

Eric Jensen, author of *Teaching with Poverty in Mind*, describes the impacts of stress on students, especially students from Low-SES families. There are two kinds of stress, acute and chronic. Acute stress is defined as severe stress resulting from trauma, abuse, or violence. Chronic stress refers to high levels of stress sustained over time. Low-SES children are more prone to both types of stress than their middle/upper class peers. Chronic stress can impact physical, psychological, emotional, and cognitive functioning, which can impair brain development, academic success, and social competence. Current research on chronic stress says:

- Chronic stress is linked to over 50 percent of all absences (Johnston-Brooks, Lewis, Evans, and Whalen, 1998.)
- Impairs attention and concentration (Erickson, Drevets, & Schulkin, 2003).
- Reduces cognition, creativity, and memory (Lupien, King, Meaney, & McEwen, 2001).
- Diminishes social skills and social judgment (Wommack & Delville, 2004).
- Reduces motivation, determination, and effort (Johnson, 1981).
- Increases the likelihood of depression (Hammack, Robinson, Crawford, & Li, 2004).
- Reduces neurogenesis (growth of new brain cells) (De Bellis et al., 2001).

To understand the effects of stress it is important to understand allostasis. Allostasis means the brain resets itself to a new norm. Healthy brains respond to events and then recover, such as, blood pressure goes up in a stressful situation, the situation passes and blood pressure goes down. When a brain is exposed to either repeated chronic stresses or extreme short-term stress, the brain is hyper vigilant all the time, it never relaxes, never recovers and these students want to control everything all of the time in order to feel safe. Other students become hypo responsive, which causes learned helplessness where the students exhibit listlessness, disengagement and apathy.

Educators can take steps to reverse the negative impact of stress by increasing physical movement, empowering students and teaching coping skills. Provide guaranteed recess, brain breaks, jamming minutes, walks and remove barriers from participating in extra curricular activities. Additional movement provides temporary cognitive support by getting extra oxygen and glucose to the brain.

Schools can give students more control over their lives by offering appropriate choice, supporting student leadership, engaging in project learning and cooperative learning. This helps students in out of control home situations gain appropriate power and control at school. Finally, teachers can work individually with students to manage their overwhelming stressors. Make individualized "if, then" plans with students and allowing their participation in creating the plans gives students positive alternatives for handling stress.

TIMELINE

August: Educate staff on poverty, stress and learning
September: Form planning committee, explore current school/ district policy, make recommendations for changes, identify baseline data
October/November: Implement changes
December-May: Committee monitors data, makes recommendations for continuing changes and/or revising changes to meet student needs

