**Social Brains, Discipline, and Regulation!**

As I ponder, rethink and implement discipline supports and resources into our nation’s schools, I am reminded of the research from Dr. Bruce Perry. Our brains are social organs and we cannot survive without one another. When any individual feels isolated, rejected and disconnected from those around him or her, we tend to retreat to our reactive neurobiology within the brain stem and limbic systems. It is from this brain stem, the ***Locus Coeruleus***, the nucleus of cells in the brainstem (pons) involved in the physiological response to stress and feelings of panic oftentimes causing a reactive defensive response that has become a new normal brain state. It is here in the lower brain where the stress systems are activated and move through the limbic brain causing a sensitized reaction in the amygdala, that if prolonged and extreme, can affect learning, motor skills, emotional regulation and the fundamental neural networks that are responsible for human kindness empathy and compassion.

In our schools across the nation, children and adolescents are walking through our doors carrying in patterned developmental stress circuits. These activated stress systems initiate repeated negative dispositions and we sometimes see aggressive, defiant, oppositional, and violent or shut down behaviors in our students that can appear without warning! We are seeing more and more students triggered by what seems like the most insignificant incidences! But these environmental triggers that might be a person, place, a conversation, an object, or content being taught are anything but insignificant. We know that adversity and trauma at any age, but specifically an early age, are held in our emotional implicit core memory systems and in the body! Our bodies actually hold these adversities like the unconscious mind! When the stress systems are activated the brain move swiftly to the fight flight freeze response creating a rapid heartbeat, respiration and higher blood pressure. Over time, these reactive repetitive limbic responses can literally kill brain tissue through the abnormal secretion of adrenaline and cortisol. Cortisol stimulates extra calcium which leads to the production of free radicals that can injure and destroy nerve cells. The hippocampus, our memory center in the limbic brain is responsible for encoding memories and moving short term memory to long term memory storage. But the hippocampus also is the primary trigger to the parasympathetic nervous system which lessens heartrate, lowers blood pressure and respiration! When the hippocampus is compromised by cell death, its ability to ward off stress is diminished! We see up to 25% less gray matter in the hippocampal areas because of excess cortisol secretion!

So when we treat pain based behaviors with pain… we escalate the stress response systems. When we suspend expel and diminish the ability to stay emotionally connected through conflict we unintentionally elevate the neurohormones like adrenaline, noradrenaline and cortisol that produce more reactive behaviors. When we punish in punitive actions, we unintentionally isolate and reject children and adolescents who walk through our classroom doors carrying in a brain that has rarely been exposed to healthy attachments and therefore has wired and mirrored its environment.

***A child who has never been loved cannot love! A child who has not been the recipient of kindness and compassion has not formed the receptors in the brain responsible for showing kindness. Our relational neurobiology matters more than anything else to our mental, emotional and physical health!***

We are in a time where we must prepare our educators, schools and parents in understanding how early adversity changes brain architecture creating a hyper vigilant sensitized response in the lower brain. Prefrontal cortex neuronal networks are taken offline and the cortical functions responsible for learning, emotional regulation, sustained attention, empathy, and kindness are left barren of an oxygenated glucose blood flow. Our brains are “use dependent” meaning that the more you take any neuronal network and activate it in patterned repetitive ways, the more we internalize… creating synaptic connections that become hard wired and change our brain architecture and blood chemistry. Adversity and trauma fundamentally reorganize the brain where negative emotion, feelings of rejection, isolation and a distorted perception reign supreme! The acts of defiance and aggression are often misunderstood by the adults who do not understand how “shame” and “depression” can manifest in children and youth. We can unintentionally create battlefields and explosive warfare against these vulnerable youth if we do not understand how the brain processes negative emotion or how to reduce the fight flight fear response ignited in pain.

Dr. Bruce Perry describes our two greatest gifts as a human species. These are the malleability of the human brain early in life, and the fundamental relational gift of connection as human beings. We are biologically wired to need one another for survival! We survive by forming collaborative groups and large parts of our brains are dedicated for relationships and connection. Yet, as a society we unintentionally disrespect our own evolution of connection and this happens way too often inside our nation’s schools.

Our discipline policies must begin to include brain science as it relates to negative behaviors and connections. We must begin to mentor our educators, parents and community on the power of connection through conflict and how the parts of our brain that are humane, empathic and kind require experience to become fully developed and organized!

Empathy / Compassion

Human beings are contagious! We are contagious in cognition, affect and motor activity. We model what we see and this powerful contagion can be such a benefit for educators in the classroom! We need to model and teach the behaviors we want to see. When students observe us handling problems, challenges and adversity we are giving them an experience that is beneficial in developing new networks of higher cortical functioning!

What can we do?

**Regulate and Reward**

**When disciplining youth, we must come from a regulated brain state as must the student. When we are regulated, calm, and clear with our thinking, we are better able to listen, respond, problem, solve, accept responsibility and process various viewpoints. How do we regulate a child or adolescent? We know that to calm the amygdala stress response returning to the frontal lobes, we must use a language that the amygdala understands. That language is “feelings” and the actions taken to calm the stress centers are movement and breath. These have various forms and durations, but to regulate our negative emotions is a prerequisite to sustainable engagement, learning and discipline.**

**Chunks of time throughout the day that reward behaviors come from intentional acts of connection. When we reward a struggling child, we notice what they are doing well and right. We notice effort. We notice when tensions rise and we redirect them with choices and opportunities. We help them to envision possibility through a private assignment, artwork, music, a service project, or assisting another adult or child in the building with a problem. We invite them to co –plan and co-teach. We place them in a leadership role that helps them to feel connected and purposeful.**

**We begin by teaching all students about their neuro-anatomy!**

1. Teach students about their neuro-anatomy just as you would teach procedures, transition, classroom agreements and routines.
2. Prefrontal Cortex
3. Neuroplasticity
4. Amygdala
5. Hippocampus
6. Social Brain/ Development / Peer Influences
7. Stress Response/ Limbic Brain
8. Self-Reflection

The integration of brain science turns discipline into a learning opportunity for both teacher and student! It is tailored to be proactive and a part of teaching procedures, transitions and rituals. It uses our bodies to redirect behavior and never our mouths! (Never go public!!) It is self-reflective and created from these four guidelines!

1. **We Belong- Am I important to someone here?  
   2. We Try- Am I good in my efforts here?  
   3. We Shine- Can I influence my world here?   
   4. We Serve- How can I share my gifts to help others here?**

**The goal is to not only stop the behaviors we don't want... we are good at this, but start the behaviors we do want!**

**Class Guidelines**

**Assess and Change Often!**

**Reinforce with Social Incentives**

1. **Be Safe-what does this look like in the classroom, hall, cafeteria, etc?**
2. **Be Helpful- If you are helpful in the classroom what are two actions we would like to see?**
3. **Be Respectful- If I am respectful, I am not talking when someone else is sharing, and even though I am angry or frustrated, I find a couple of ways to express these negative feelings without lashing out and hurting another.**

1. **Be Responsible- If I am responsible, maybe I am doing my own work and following the directions? Maybe I am asking for help when I need it? Maybe I need to calm down, so I let my teacher know this!**

**What do these guidelines look like in the hallway, small groups, whole group, homework, late work, arrival and dismissal.**

**Truth Signs**

1. **Everyone needs different supports, incentives and resources for learning and behavioral choices.**
2. **Everyone needs time to think and learn.**
3. **We each learn in our own ways by our own time clock.**
4. **It’s intelligent to ask for help. No one needs to do it alone.**
5. **We can be successful when we take risks and make mistakes.**

**Often times, this isn’t enough and we need backup systems that provide the security of boundaries, structure and consistency. In- school suspensions have attempted to do this, but they are often delivered in negative and escalating tones, words, and behaviors. If I am to discipline with the brain in mind, I need for each student to connect with me but to also connect with other adults during a time of conflict and chaos.**

1. **Do you have three or four colleagues in your building that can assist you in moments of conflict? These colleagues could include: custodial help, cafeteria workers, instructional assistants, older students, different department colleagues, grade level colleagues, special area teachers, administration substitute building teacher, volunteers, etc.?**
2. **Could you develop a discipline back-up plan where once the student is regulated after a few minutes or so… the students could move to different classrooms or areas in the building for affirmation and special service errands or jobs for this colleague who sits beside you giving emotional first aid? For every**
3. **Could you develop a brain packet for this student to work through as they observe and learn about the science of their behaviors? (I am working on this now!)**
4. **Back – Up Systems - are always to be used for the short term and never intended to start new behaviors we want to see!**
5. **Types of Back- UP Systems (Get Back Up!!!)**
6. ***First Step/ Co-Regulation***
7. **Amygdala First Aid Station**
8. **Train of Thought Area**
9. **Peer Mentoring**
10. **Assigned Teacher Classroom or Brain Lab ( School wide)**

**Validation and Questions**

**That must have made you feel really angry.-**

1. **What a frustrating situation to be in!-**

**It must make you feel angry to have someone do that.-**

**Wow, how hard that must be.-**

**That’s stinks! That’s messed up!**

**How frustrating!**

**Yeah, I can see how that might make you feel really sad.-**

**Boy, you must be angry.**

**What a horrible feeling.**

**What a tough spot.**

**Questions**

1. **What do you want?  
   2. Do you have a plan?  
   3. How can I help you?  
   4. What are your resources?  
   5. What feels difficult?  
   6. What could be the best possible outcome?  
   7. What is the worst thing that could happen?  
   8. Is your interpretation really true?  
   9. How do you know this?  
   10. What is a first step in improving this situation?**

**Dual Reflection Brain Sheets**

**What did we see?**

**What did we hear?**

**How did we feel?**

**What guideline was not followed?**

**What are two adjustments we could make the next time?**

**What is one thing we both did well?**

Reasonable Consequences

The brain loves to make sense out of experiences, information, and relationships that fit together. This is why we need to implement consequences that attend to the hurt or pain that one person has caused another. Consequences for poor decisions and the choices aligned with them will make sense and feel relevant and meaningful to students who are ready to process this information, responding from their frontal lobes in a calm brain state. This is the place in which they'll experience and feel the connection between choices and consequences. Here are some examples of those connections:

For a student who interrupted whole-class learning, have him or her create an extra-credit assignment for the class on a specific topic or standard.

For a student who used unkind words to another classmate, have these two partner to create a special assignment, job, or favor for another class or the cafeteria or office staff, starting a "pay it forward" chain for a week of school.

For a student who showed disrespectful behavior toward an adult, have him or her write a letter of apology explaining what was beneath the hurt feelings that caused the behavior, accompanied by a plan of action to make amends for the hurt feelings that he or she caused.

There are many YouTube videos presenting kindness, empathy, and the tough struggles of others that students will enjoy and learn from. This activity helps us reach beyond our own stubborn egos and negative emotions to serve another. The following links take you to sources of short videos that will help your students create positive emotions and diminish anger:

[Pennies of Time](http://penniesoftime.com/videos-on-kindness-and-serving-others-5-favorites/)

[Random Acts of Kindness](https://www.randomactsofkindness.org/)

[Kind Kids Club](https://www.youtube.com/watch?v=ZBicz2uoG8Q)

What are other ways that we could align consequences to impact future behaviors with positive emotion?

Keep engagement high!! / Part of a Pro-Active Discipline Plan!

As I prepare for summer coursework and professional developments, I wanted to share these researched brain aligned strategies we will be exploring in the Butler educational neuroscience course in 10 days!

1. Paying attention means using novelty!   
2. Keep the fun in learning and never save it for the end!  
3. Students who are constantly relating new standards and material to personal experiences perform better than those who memorize for the test!   
4. Brain Intervals not only create novelty, but they give the brain some incubation time to fix and form neural circuits!   
5. We need to rename "Testing" to "Retrieval Practice" as forgetting is important to learning and we need to create frequent conditions where students have the opportunity to retrieve information!

Developmentally students in upper elementary and middle school are walking in with heightened limbic brain activity which can look awful and ugly to adult and even other students. These years are so confusing and just as important as school and classroom rules are student and class "Strength and Action Plans!   
1. What are my strengths?  
2. What are my passions? How can I use these and show case these this year?   
3. What do I enjoy?   
4. What are my challenges?   
5. How can I integrate these in my classrooms this school year?

**Strategies to calm the amygdala for elementary students**

1. Taking deep breaths brings an oxygenated glucose blood flow to our frontal lobes. Taking just three deep inhales and exhales calms the emotional brain! There are many ways to teach our students how to breathe and why this is important. <http://www.edutopia.org/blog/brain-breaks-focused-attention-practices-lori-desautels>
2. Movement is critical to learning and when we move, we activate the frontal lobes waking up our executive functions while lessening the stress response system. We begin and end the day with red cup drumming and body drumming! Taking turns a student leads with a rhythm and then we follow. We drum a pattern on our legs and arms and we mimic the leader. Red cups are fun to use as well as the collective sound brings a sense of community and family to the classroom!
3. Hand Massage- Once a day I pass out a drop of lotion and for 90 seconds students give their hands and fingers a massage noticing their palms, joints finger tips and any sensations that feel uncomfortable or stiff.
4. Rocking along the spine of our backs helps us to feel present in our bodies and provides a soothing rhythm that subtly grounds us with sensation and movement.
5. Placing our fingers on our throats, the teacher begins the day with a sound and then the students mimic the sound feeling the vibration of their vocal chords! This gives everyone a chance to participate and to see how different voice tones, volumes feel in the body.
6. Crab Walk and Slithering Snake-
7. Domino Effect
8. Scarf Dancing
9. Writing with the opposite hand
10. Bi-lateral movements
11. Writing out worries on post-its
12. Toe and heel walking
13. Rubbing hands together until they feel hot and then release
14. Tastes –sour to sweet – Sour Patch Kids
15. Neck Massage
16. Affirmations
17. Talisman
18. Validations
19. Modeling in a new way!
20. Questions
21. Core Work
22. What circuit are you running today?
23. Core Memories
24. Islands of Personality
25. Islands of Forced Success
26. Trigger Lists
27. Smells and Writing Images

***Memory, neural tissue, and development all change with patterned repetitive activity.***

***Resilient children are Made, Not Born***

**Strategies to calm the amygdala for secondary students!**

1. Begin and end each class with deep breathing. Taking deep breaths brings an oxygenated glucose blood flow to our frontal lobes. Taking just three deep inhales and exhales calms the emotional brain! There are many ways to teach our students how to breathe and why this is important. <http://www.edutopia.org/blog/brain-breaks-focused-attention-practices-lori-desautels>
2. At the entrance of class, designate a check-in corner with a jar or basket where students can come in and write or draw their feelings. On small post-its or index cards, they can choose to share the feeling with you at a mutual time or tear it up. When we release our feelings and thoughts we create space in our working memory. Dr. Dan seigel shares that what is sharable is bearable!
3. Begin class with a 90 second hand massage offering a drop of lotion for this relaxation process. Dr. Jill Bolte Taylor shares that our bodies and brains rinse clean of negative emotion in 90 seconds if we attend to those feelings and the thoughts that stir them up! We share this research with our students.
4. Bucket Inventory- Explain to the students that we each carry two internal buckets with us each day. One is a stress bucket, which sometimes is so full it just takes a drop or two for it to overflow. The other is a “good feeling” bucket, which needs to be filled by those around us and ourselves. Which bucket is full? What feels empty? What do you need? How can we help fill or empty our buckets? This is a great strategy to share with an open invitation. Students are encouraged to help fill one another’s bucket or assist in emptying out the unneeded stress. What are the ways this could be a part of your class rituals and routines? Thank you to Erin Lerais for her suggestions here!!

Trigger Lists- Older youth who have experienced trauma sometimes know their triggers- those sounds, sights and experiences that unintentionally spark negative emotions. A few times each week, we need to check in with all students and have them create a list of triggers that can block learning and relationships and those experiences, people or celebrations that enhance positive emotions! This is also a great way for educators to collect perceptual data and build trusting relationships with students.

In conclusion, it does take a village to build connections! Many of our students walk through our doors disconnected from themselves and the world around them. They need to “feel felt” in order to learn, regulate and acquire healthy relationships.

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