

KERNELS 101: SUSTAINABLE PREVENTION FOR ALL

Understanding & Using the Smallest Units of Scientifically Proven Behavioral Influence!



Joe Neigel
Yakima, WA
November, 2019

Adverse Childhood Experiences

ABUSE



Physical



Emotional



Sexual

NEGLECT



Physical



Emotional

HOUSEHOLD DYSFUNCTION



Mental Illness



Incarcerated Relative



Mother treated violently

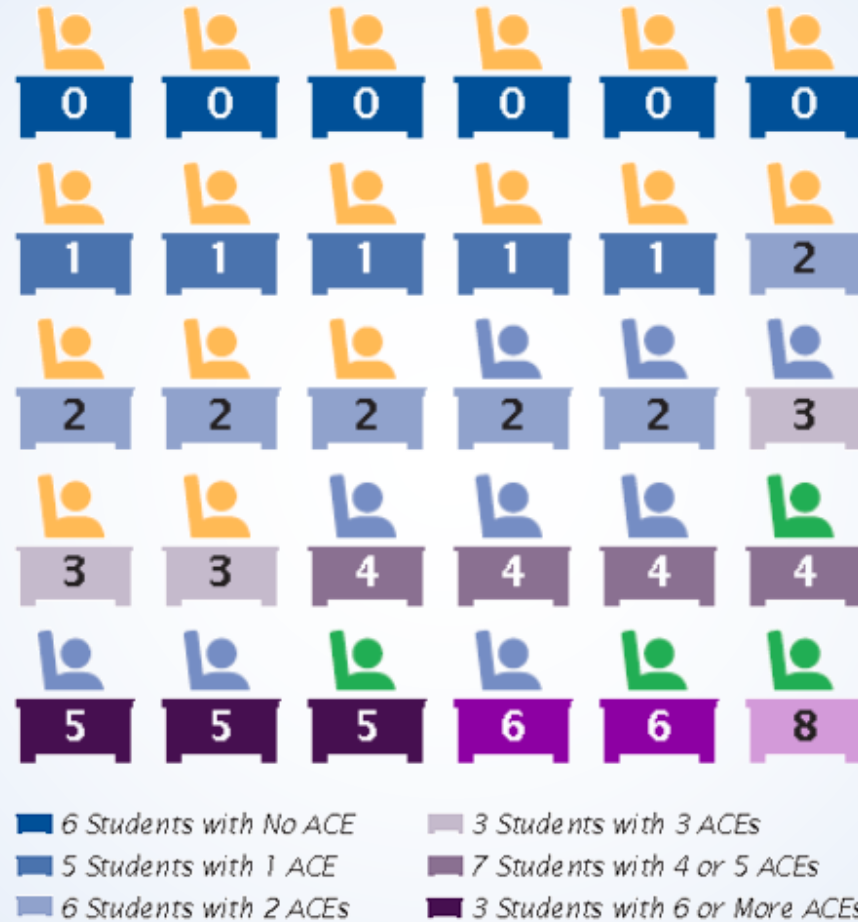


Substance Abuse



Divorce

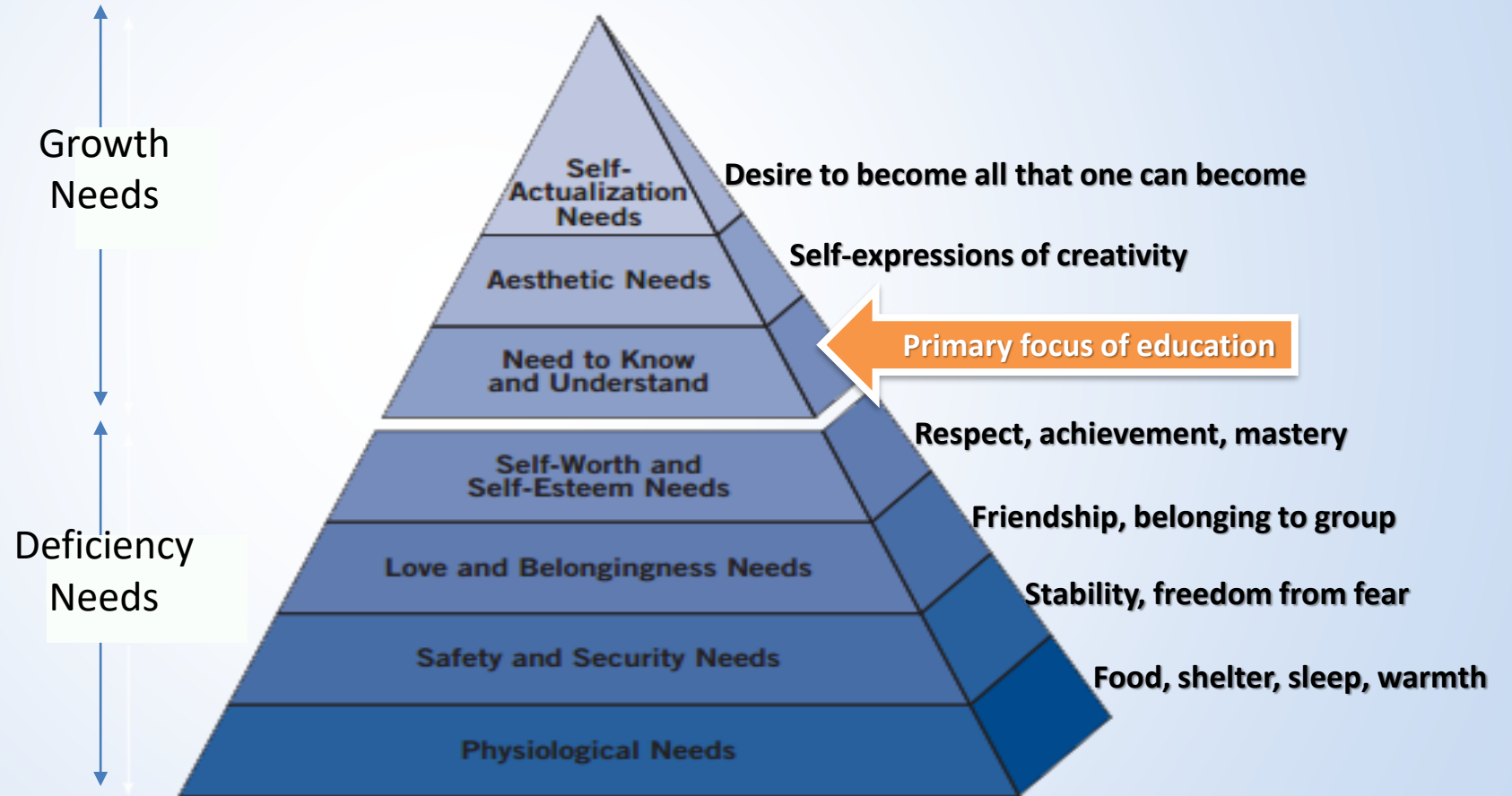
Teachers on the front lines



More than 1 in 5 8th graders in Snohomish County Schools indicated they have been intentionally hurt by an adult on the most recent Healthy Youth Survey.

Maslow's Hierarchy of Needs

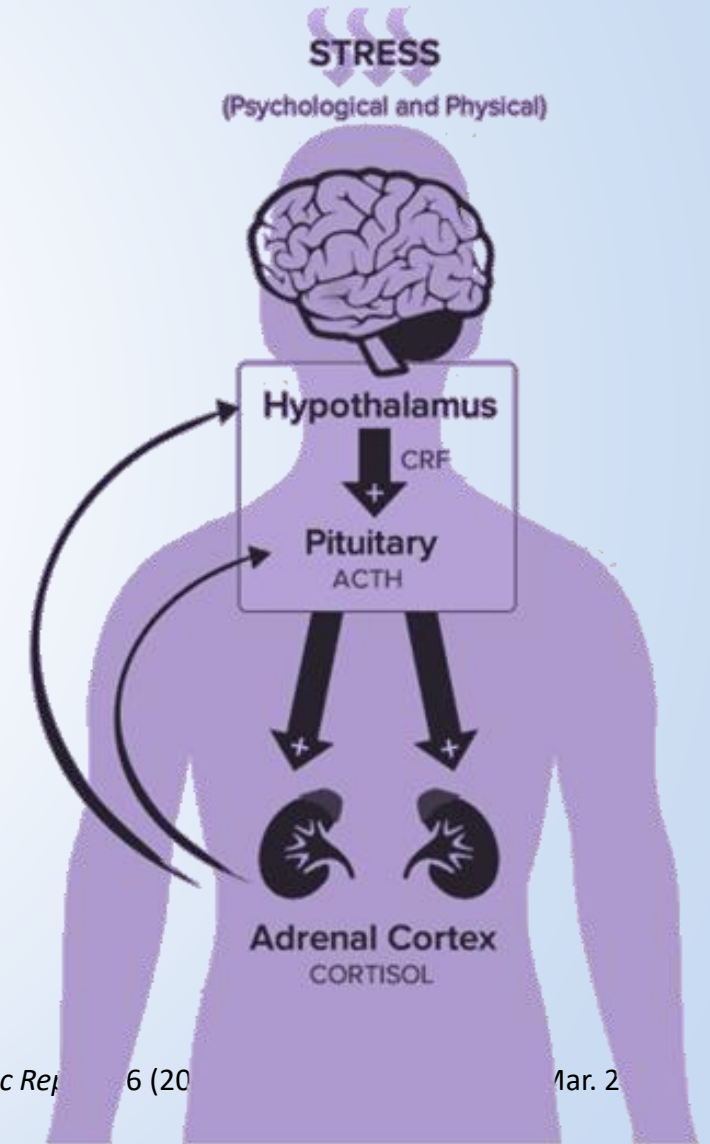
- **Your mission** at Lowell is to ensure that each student develops skills, knowledge, and attitudes to achieve high standards and become a responsible citizen.
- **How do you** intentionally address the Deficiency Needs of students they will be motivated by a “need to know and understand?”





Cortisol awakening response (CAR)

- Students exposed to high levels of family conflict, abuse or other dysfunction may develop dysregulated HPA Axis reactivity, leading to increases in health problems and classroom social, emotional and behavioral problems.
- **Cortisol Awakening Response (CAR)** – This field of study that shows how our body uses a burst of the stress hormone Cortisol at wakeup each morning to orient us to our place in space and time, and prepare us for our day.
- Our CAR brings us to full alertness, activates our immune system, helps us to recall memories that help us to anticipate our day (like a project being due or an upcoming test), and increases energy availability for coping with demands.





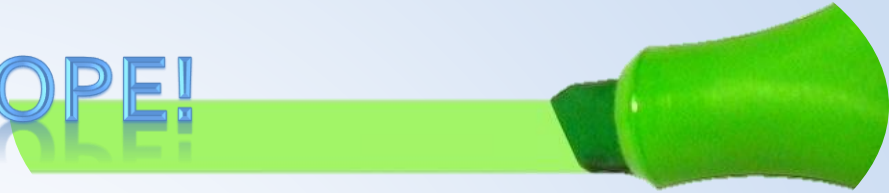
Blunted Stress Response

- **Blunted Stress Response** – Occurs when constant activation of the stress response system creates a homeostatic reaction in the HPA Axis – a forced dampening of stress hormone production.
- A dysregulated CAR system diminishes executive function and is related to these issues in your classroom:

Memory Distortion	Persistent Aggression	Diminished Coping	Callousness
Depression	Hyporeactivity	Sleep/Fatigue Problems	Less adaptive to change
Anxiety/Pervasive Worry	Less motivation/engagement	Blunted response to reward	Over-response to social environment

- Researchers have linked advanced stress management skills to improvements CAR functioning.

THERE'S HOPE!



- **Trauma-informed practices** create environments where injured brains have the best opportunity to learn and thrive.
- **Research on resiliency and neuroplasticity** teach us that every person can bounce back from adversity.
- **Evidence-based Kernels** can lead us from intuitive responses to intentional action.



How Wolves Change the Behavior of Rivers



<https://www.youtube.com/watch?v=ysa5OBhXz-Q>

How Wolves Change the Behavior of Rivers



What is a Kernel?



- A kernel is the smallest unit of scientifically proven behavioral influence.
- Kernels produce quick easily measured change that can grow into much bigger change over time.
- They can be used alone **OR** combined with other kernels to create new programs, strategies or policies.
- Combinations of Kernels are considered “behavioral vaccines.”
- “Planted” Kernels create a culture.





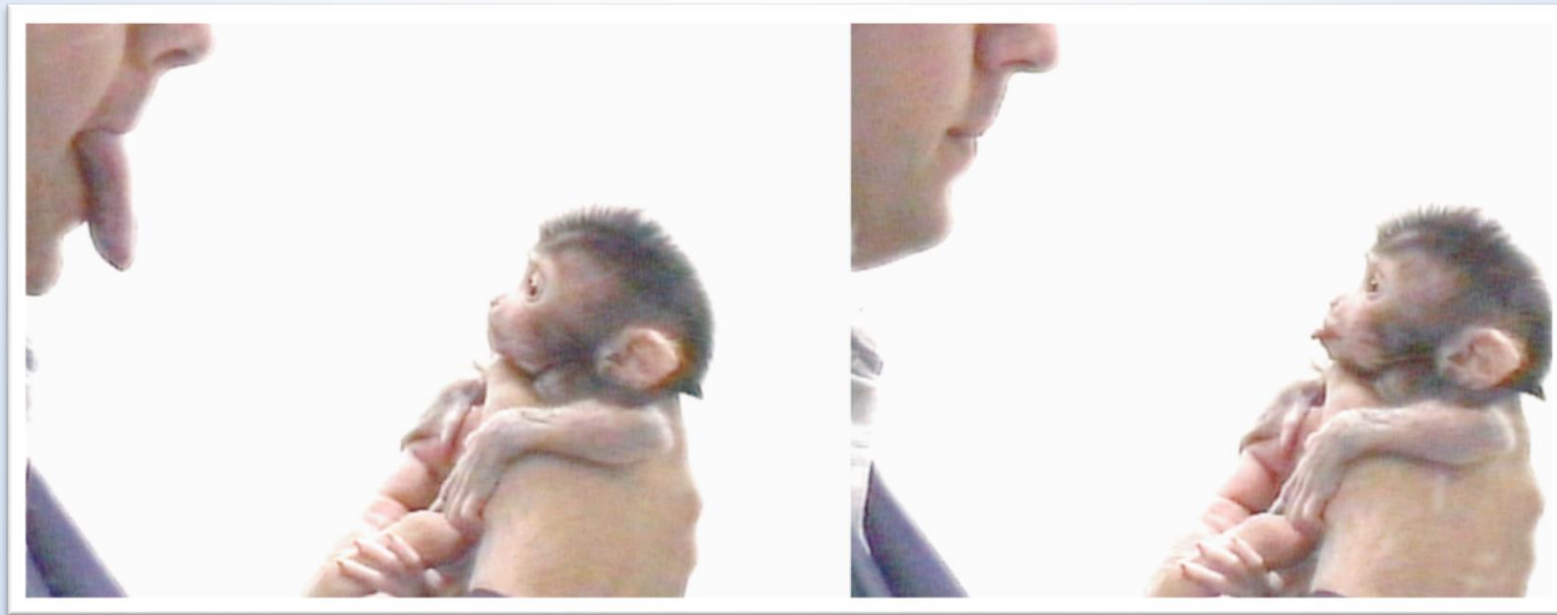
Managing Affect

- **Mood** is your internal emotional state.
- **Affect** is how you externalize your emotions through verbal and non-verbal cues.
- Research shows that **trauma-impacted people are particularly aware of changes in affect**, which triggers the survival brain, decreasing their capacity to think and learn.



Your Pain is My Pain

- **Mirror Neurons** help us to instinctively understand the actions of others and prime us to imitate what we see.
- This neural mechanism is involuntary and automatic.



Rubber Hand Illusion



<https://www.youtube.com/watch?v=iPFSgLDCvAs>

natgeotv.com

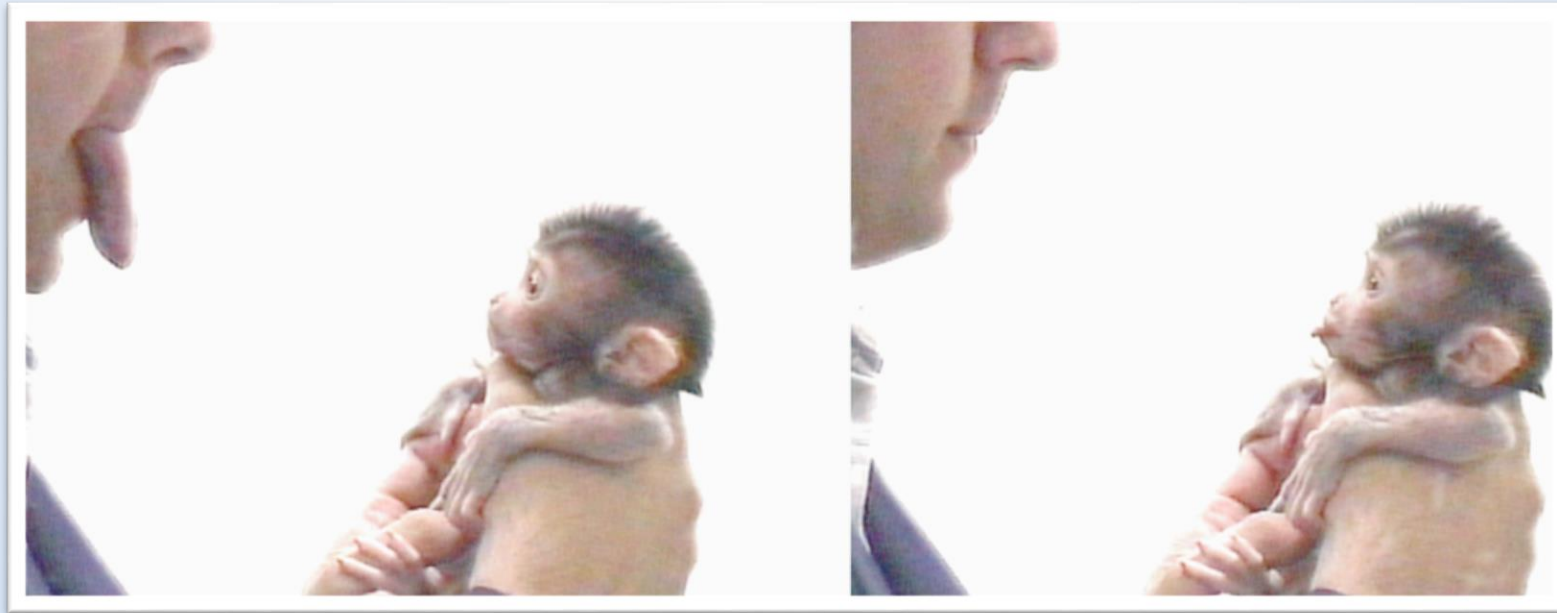


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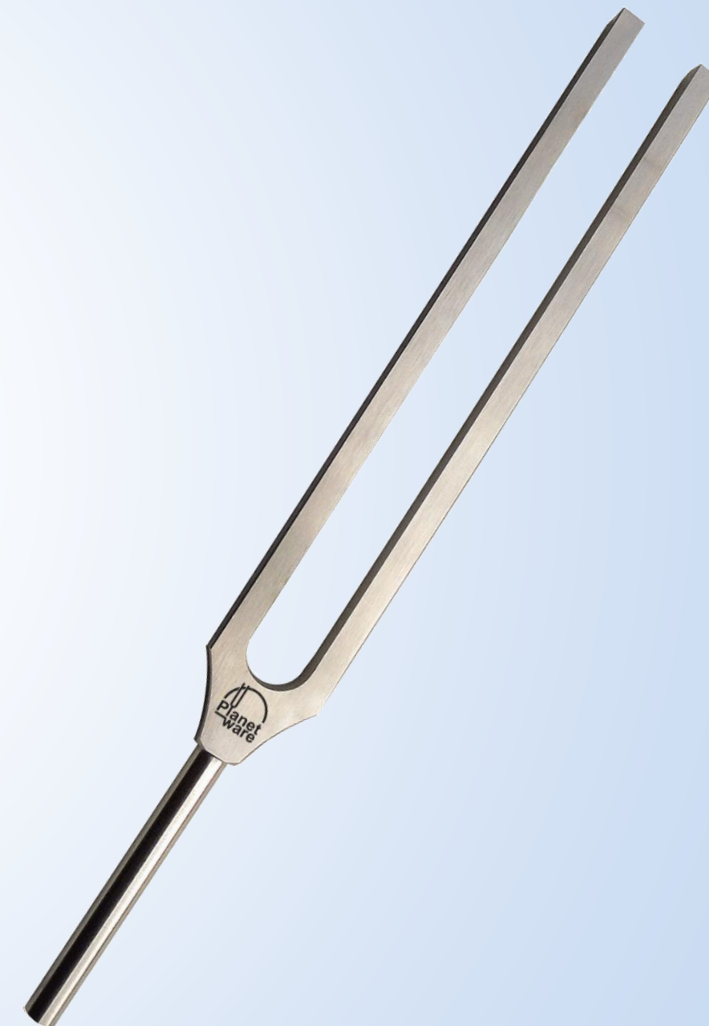
Still Face Experiment



Attunement



- Traumatized youth often **have difficulty communicating**, so their behaviors may become a front for conveying unmet needs or unregulated affect.
- Adults may respond to the most distressing symptom, rather than the student's underlying emotion or need.
- Ask - **“What’s happening here?”** rather than, **“What’s wrong with this child?”**





Consistency

- **Being predictable** by having **consistent responses to client behavior** is vital to establishing safety and reducing your client's need to exert control.
- **An intentional focus on building success, rather than establishing limits** – which may be associated with powerlessness or vulnerability – **should be your priority.**
- Know that your most challenging clients may initially react with both negative or positive responses.

CONSISTENCY
IS THE KEY!

Routines & Rituals



- Building routines and rituals, particularly around trouble areas, can make school fun, safe for all and predictable.
- Research shows that establishing routines enhances student:
 - Feelings of safety;
 - Ability to build trust and feelings of reliability within a relationship; and
 - Anticipation of an event, which reduces stress.



Play

- **Caretaker/child play** – is associated with lower rates of delinquency, substance abuse problems and psychiatric disorders such as depression and anxiety problems.
- **Physical play** – increases a child's ability to have healthy relationships by teaching basic skills for making and playing with friends.
- **Non-Directive Play** – improves the relationship with the parent, increases the happiness and contentment of the child, and results in greater attention span, improved creativity and resourcefulness.



Turtle Breathing



“Turtle Breathing” is a technique for helping children with controlling anger.

Trusted adults use this technique in conjunction with the scripted story, “Tucker Turtle Takes Time to Tuck and Think.”

This technique:

- **Reduces anxiety**
- **Reduces temper tantrums**
- **Increases resiliency**
- **Increases self-control**



Turtle Breathing

Model remaining calm

Teach the child the steps of how to control feelings and calm down

Step 1: Recognize your feeling(s)

Step 2: Think “stop”

Step 3: Go inside your “shell” and
take 3 deep breaths

Step 4: Come out when calm and
think of a “solution”

Practice steps frequently

Recognize and comment when the child stays calm

Involve others: Teach neighbors and educators about the “Turtle Technique”



Turtle Breathing



Tucker's solutions

1. share
2. play
3. ignore
4. ask nicely
5. say, "please stop"
6. get a teacher
7. trade a toy or item
8. wait and take turns

Helping children with their anger

Anger is a normal and healthy emotion. Children need to learn how to manage their anger without hurting themselves or others. Here are seven ways to help a child cope:

1. Be firm and fair, without getting angry. Limits are part of loving.
2. Understand that anger usually stems from the frustration of trying to get or avoid something.
3. Be clear. Tell the child what you want him or her to do in a specific situation. Try to avoid lectures. Say, "Try this instead."
4. Coach the child on how to handle conflict.
5. Role model healthy ways to deal with anger.
6. Try to avoid spanking as it teaches hitting.
7. Be patient: Learning takes time!

Resources

www.vanderbilt.edu/csefel Free tools, videos, and information on children's social emotional wellbeing.

www.challengingbehavior.org Resources for social emotional interventions with children.

www.safeschoolsmanitoba.ca Resources for parents, teachers, and students on various topics.

www.vanderbilt.edu/csefel/documents/booklist.pdf List of books on anger for children aged 2-8.

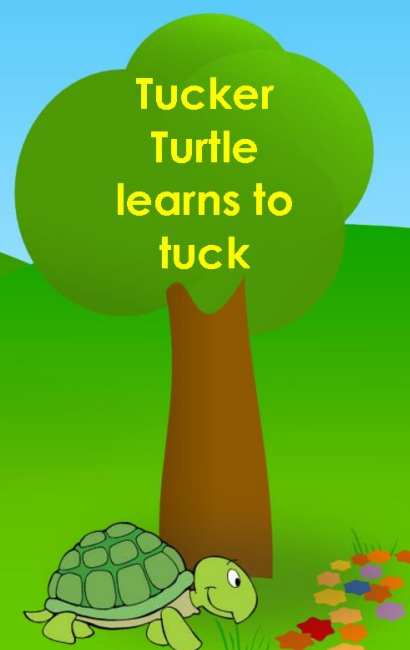
References

Lenini, R. (2007). *Tucker Turtle takes time to tuck and think : A scripted story to assist with teaching the "Turtle Technique"*. Retrieved March 1, 2010 from <http://www.vanderbilt.edu/csefel/scriptedstories/tuckerturtle.ppt>

Joseph, G.E. & Strain, P. S. (2003). *Module 2; Handout 2.6: Social emotional teaching strategies- Helping young children control anger and handle disappointment*. Retrieved March 1, 2010 from <http://www.vanderbilt.edu/csefel/modules-archive/module2/handouts/6.html>

Provence, S. (1985). *Helping young children channel their aggression*. Retrieved March 1, 2010 from http://www.zerotothree.org/site/PageServer?pagename=ter_key_temp_aggression&AddInterest=1158

Developed by kethmoen@gmail.com - (March, 2010)



Tucker Turtle learns to tuck

An anger management brochure for children

Why haven't we heard this before?!





Verbal Praise

When any person receives specific, spoken recognition for engagement in a target act or behavior, it is widely demonstrated to:

- **Improve school performance**
- **Improve adult/child interactions**
- **Improve organizational functioning**
- **Increase engagement in the noticed behavior**

Verbal Praise As a Social Reinforcer

What are the social reinforcers in your classroom for this behavior?



Paying attention.

Verbal Praise As a Social Reinforcer

How about for this behavior?



Showing off.

I-FEED-V

Use the I-Feed-V mnemonic to guide your use of praise (Loveless, 1997):

I = immediate

F = frequent

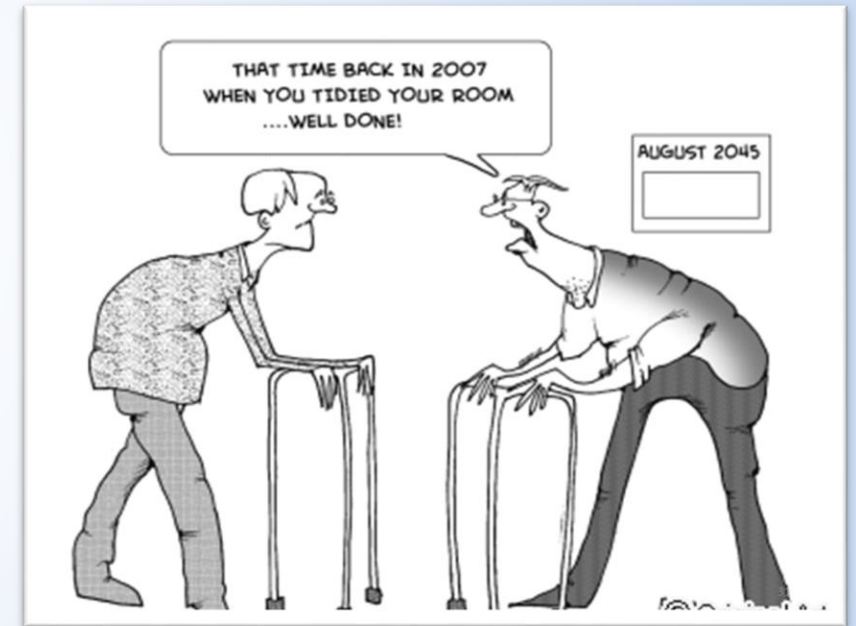
E = enthusiastic

E = eye contact

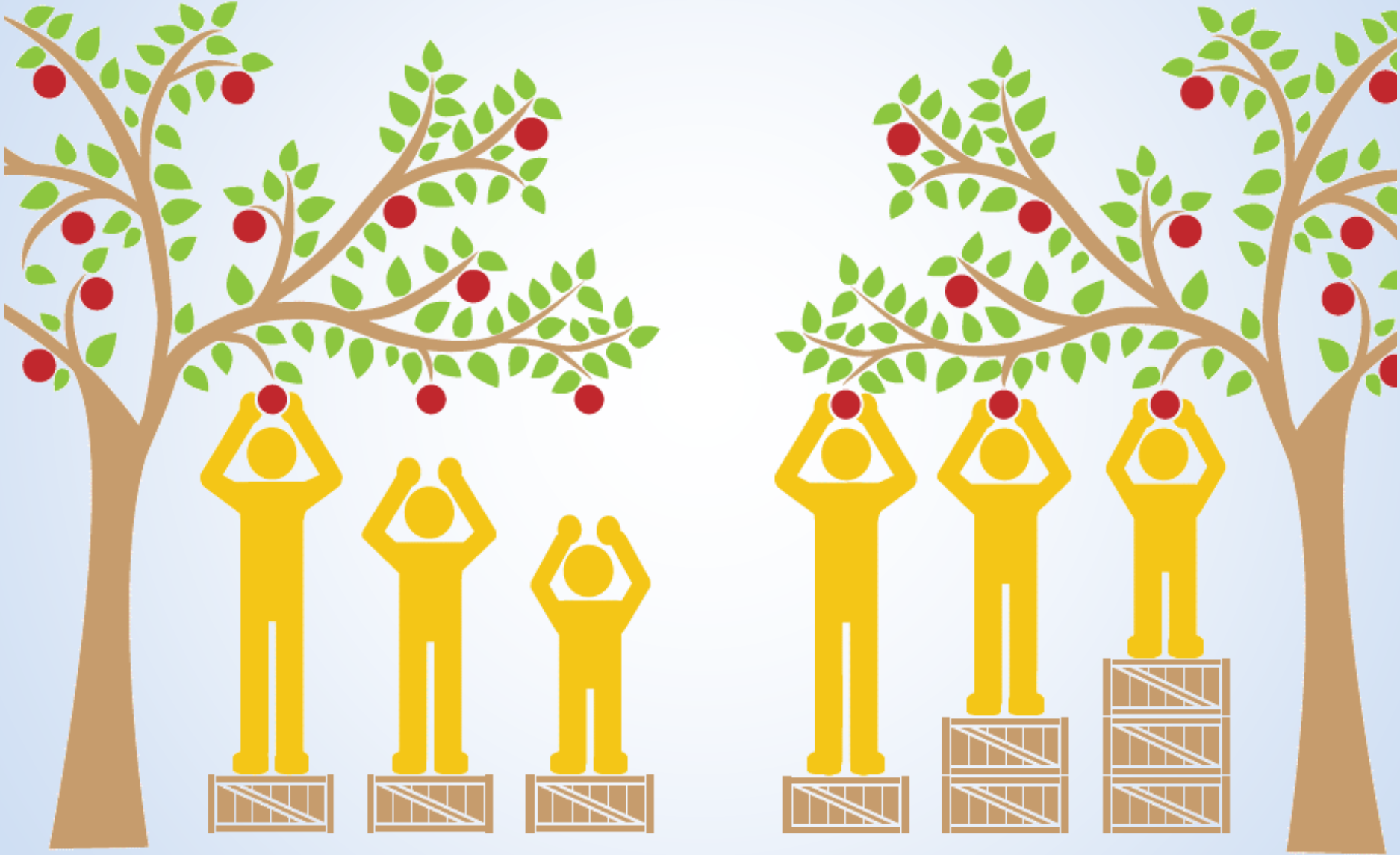
D = describe the behavior

V = variety

Ratio of praise to criticism = 4:1 (Watson, 2004)



Equality or Equity?



Equality

doesn't mean

Equity



Peer to Peer Notes

Notes of praise written from one peer to another, then **read aloud** or **posted on a public display** is widely shown to:

- Increase positive friendships
- Reduce neighborhood disorganization and crime
- Increase sense of safety
- Increase volunteerism
- Increase engagement in the noticed behavior



Adult to Child Notes



Notes from adults to children recognizing them for a **specific** action or behavior is demonstrated to help students of all ages to:

- **Do better at school**
- **Be more socially competent**
- **Reduce ADHD, aggression and problem behaviors**
- **Increase engagement in the noticed behavior**





Positive Note Home for Inhibition

A positive note sent home with a child for inhibiting an otherwise disruptive behavior is shown to:

- **Reduce disruptive and aggressive behavior**
- **Reduce problems at home**
- **Increase engagement at school**



Authority Figure Lottery 🍪

When an authority figure **sends a note home** or **calls a parent** about a young person's positive behavior, research shows that action results in:

- **Increases in school and classroom engagement**
- **Reductions in disruptive behavior**
- **Reductions in aggression**



Building Relationship is the Key!

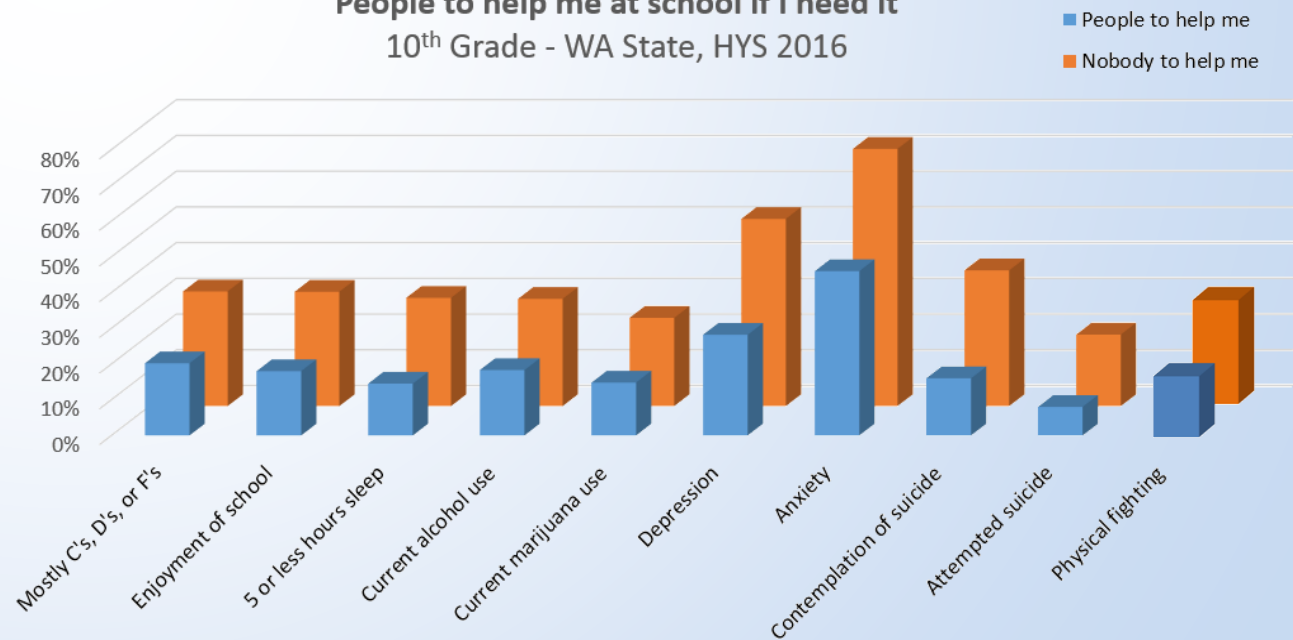
- **Connection and relationship** are vital to improving outcomes for all students.

*“Relationship is **the** evidence-based practice.”*

– Chris Blodgett, WSU



People to help me at school if I need it
10th Grade - WA State, HYS 2016



Activity: What do you need?

Good Boss

- Notices when I do a good job
- Trusts me
- Patient

Bad Boss

- Controlling
- Yells
- Doesn't believe in me

Activity: What do THEY need?

Coordinator

Good Boss

- Notices when I do a good job
- Trusts me
- Patient

Coordinator

Bad Boss

- Controlling
- Yells
- Doesn't believe in me



Pleasant Greeting with Physical Touch

- Also known as “handshakes.”
- Frequent friendly physical and verbal greetings **impact social status and perceptions of safety and harm.**
- They also affect **behavior streams of aggression, hostility and politeness.**



The Marshmallow Experiment

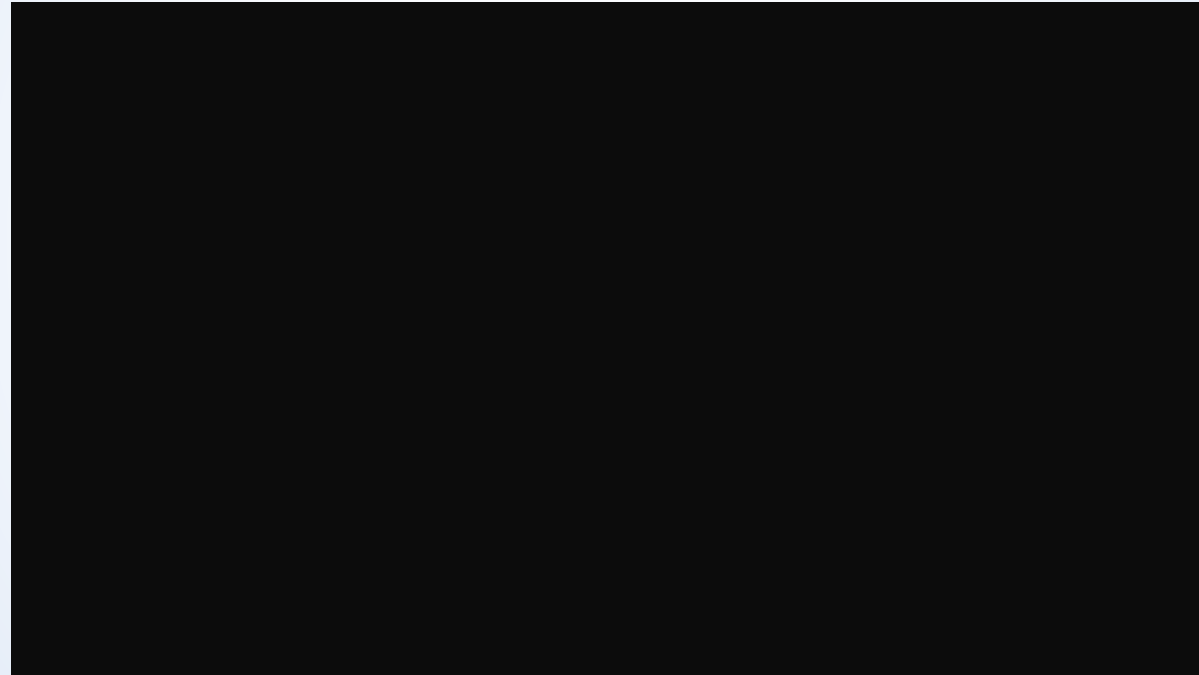
- **Feelings of reliability** within a relationship improves self-control.



<https://www.youtube.com/watch?v=JsQMdECFnUQ>

The Marshmallow Experiment

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Active Listening Skills

- **Active Listening** is a structured form of listening and responding that focuses the attention on the speaker. Research shows this technique increases mutual understanding and respect, while building emotional support.

STEP 1

- Listen carefully to what the other person is saying while looking at them

STEP 2

- A) Repeat in your own words what they just said, **OR**
- B) Guess at the meaning of what they said and tell them, **OR**
- C) Say what you think they might be feeling

STEP 3

- Continue Steps 1 and 2 after they say something else



Active Listening Can Be Hard



Private Reprimands



Public reprimands and humiliation are shown can create a trauma response and cause long lasting negative effects. Where possible, **low emotion** and **private reprimands** are a more effective strategy.

Research shows that this strategy:

- **Reduces aggression**
- **Reduces disruptive behavior**
- **Reduces emotional responding**





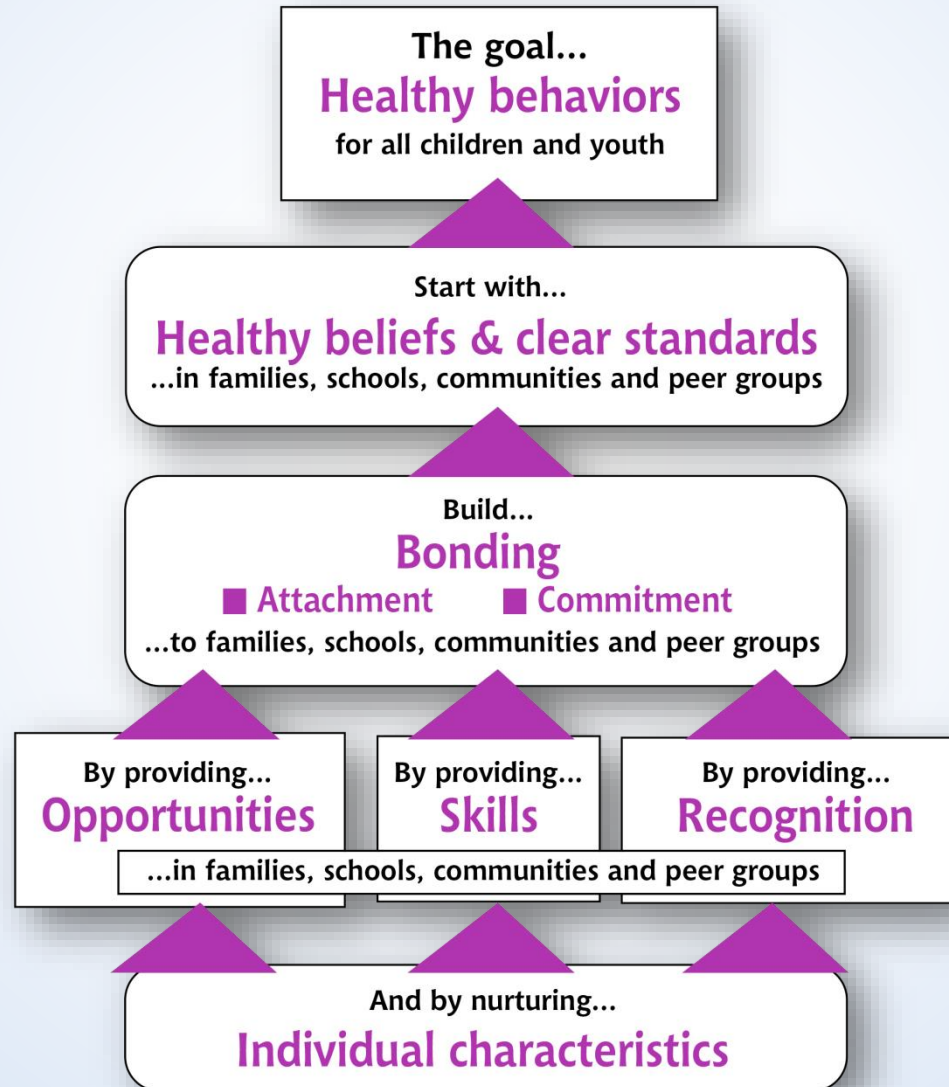
Auditory/Visual Signal for Transition

The attention kernel works for students and adults. It results in:

- Immediate reduction in transition time
- Increased academic engagement
- Reduced disruptive behavior
- Reduced aggression and bullying
- Reduced trauma response in traumatized people.



The Social Development Strategy



Challenge: Brain Nutrient Deficiency



Omega 6	Omega 3
Potato chips	Mackerel, Salmon or herring
Bread	Range fed meats
Cookies	Cod liver oil
Crackers	Flaxseed oil
Salad dressings	Flaxseed ground
Margarine	Walnuts, Pecans, Brazil Nuts
School food	Pumpkin seeds
Fast Food	Tofu (moderation)
Snacks	Green leafy veggies (Spinach).
Prepared foods	Tahini (sesame seed spread)
Grain fed meats	Hummus (chickpea spread)
Hydrogenated fats	Eggs (non-grain feed)

The alterations in brain chemistry that have resulted from our changing diet during the last 50 years contributes to trends of depression, bipolar disorder, autism, violence and academic problems.

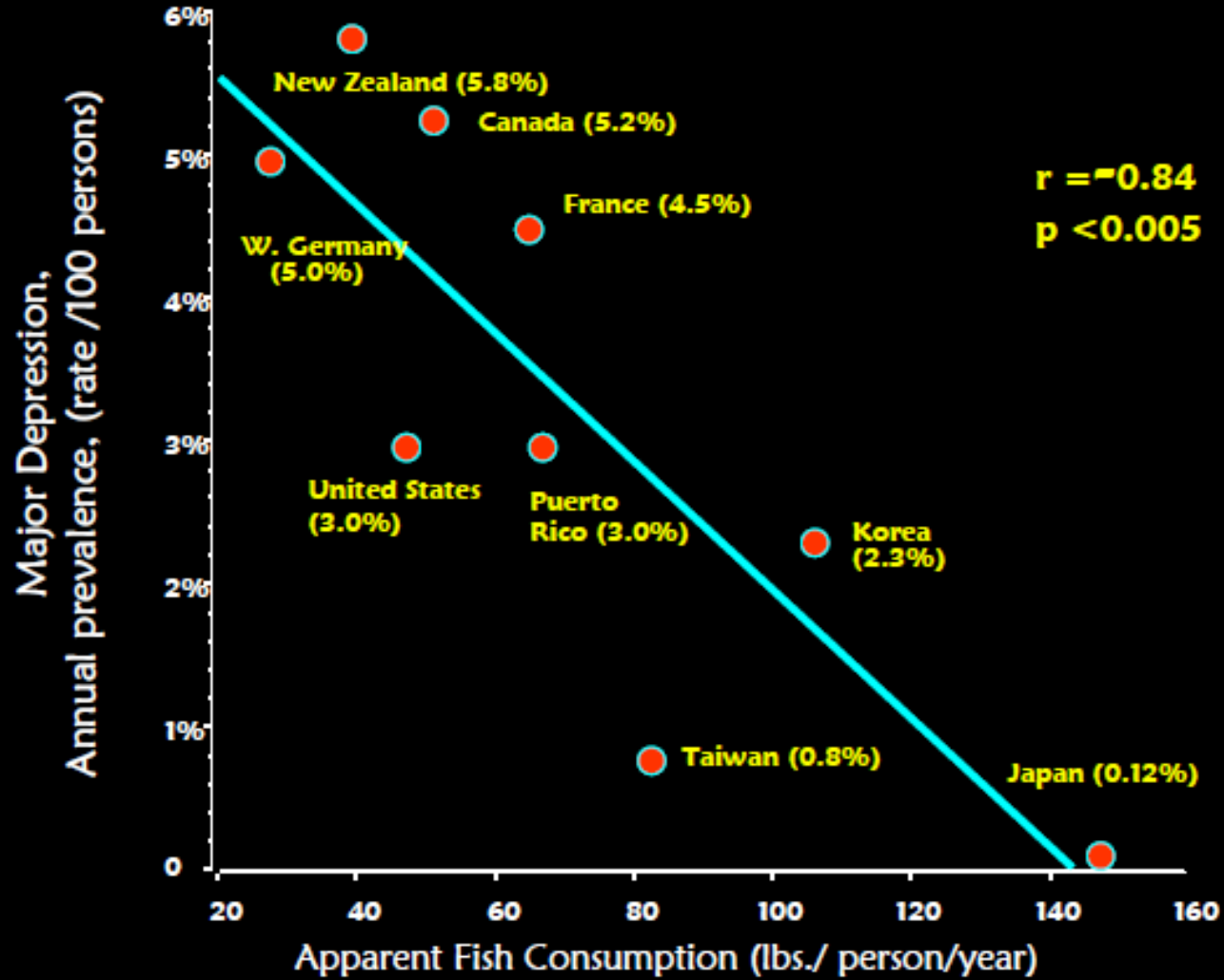


Omega-3 Supplementation

- Omega 3 has no harmful effects
- Well-documented evidence for Reducing aggression, depression, anxiety, bipolar disorder, post partum depression and borderline personality disorder
- 2002 Oxford University study and 2009 Dutch Corrections study of found Omega-3 supplementation achieved a 37% reduction in episodes of inmate aggression.
- **In 2006, the American Psychiatric Association recommend that all psychiatric patients receive at least 1 gram of omega-3 per day to reduce symptoms of mental illness.**



Fish Consumption and Major Depression Annual Prevalence by Country

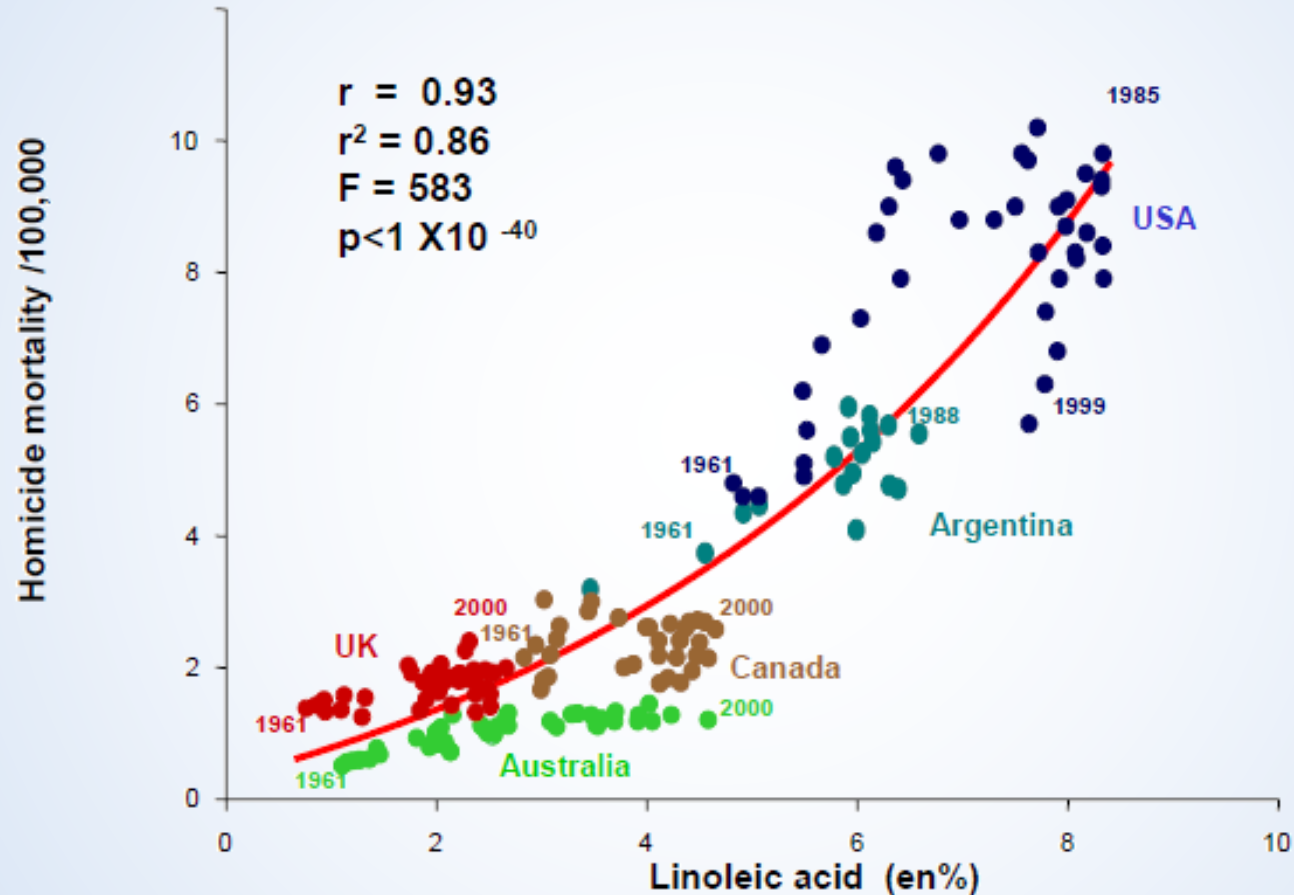


Hibbeln, Lancet 1998;351:1213

Hibbeln, Lancet 1998;351:1213

(1998) Lancet 351:1213

Homicide mortality and availability of linoleic acid (en%)
Combined **Australia**, **United Kingdom**, **Canada**
Argentina and **USA** data from 1961-2000



[from 12 seed oils as en% of all commodities available for food consumption]

$f=y0+a*\exp(b*x)$ $y0 = -1.98207$ $a = 2.14258$ $b = 0.203595$

Hibbeln et al, Lipids 2004; 23: 1207-1213



Gratefulness Check-In

When people are asked and share what they are grateful for once per week, research shows:

- **Increase in happiness**
- **Improved sleep**

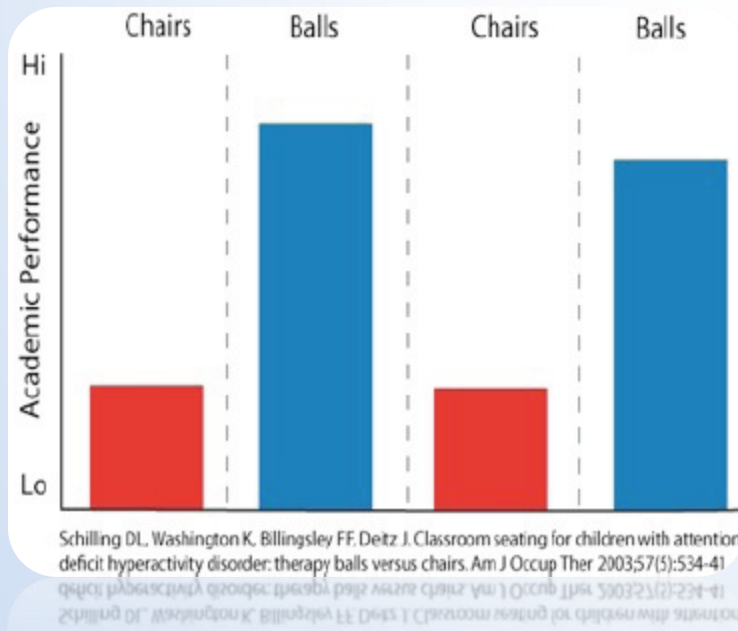




Brain on the Ball

Suitable for preschoolers through adults:

- **Increases attention and improves academic achievement**
- **Reduces ADHD symptoms without medication and reduces disruptive behavior**



Rainee Arielle Hallie

We love our
BALLS!







Feb. 6 2012

date

Dear Mr Neigel,

Thank you for the
Therapy Balls, I like
them because I can
get the energy out of
my body. They are more
comfortable than chairs.

Yours truly,

Olivia



To:

Mr Neigel,

2/11/12
Dear Mr. Weigel date

I thank you for the balls.

I like my ball because

I get to bathe around.

The balls are the

best balls in the world.

The balls are good to sit on.

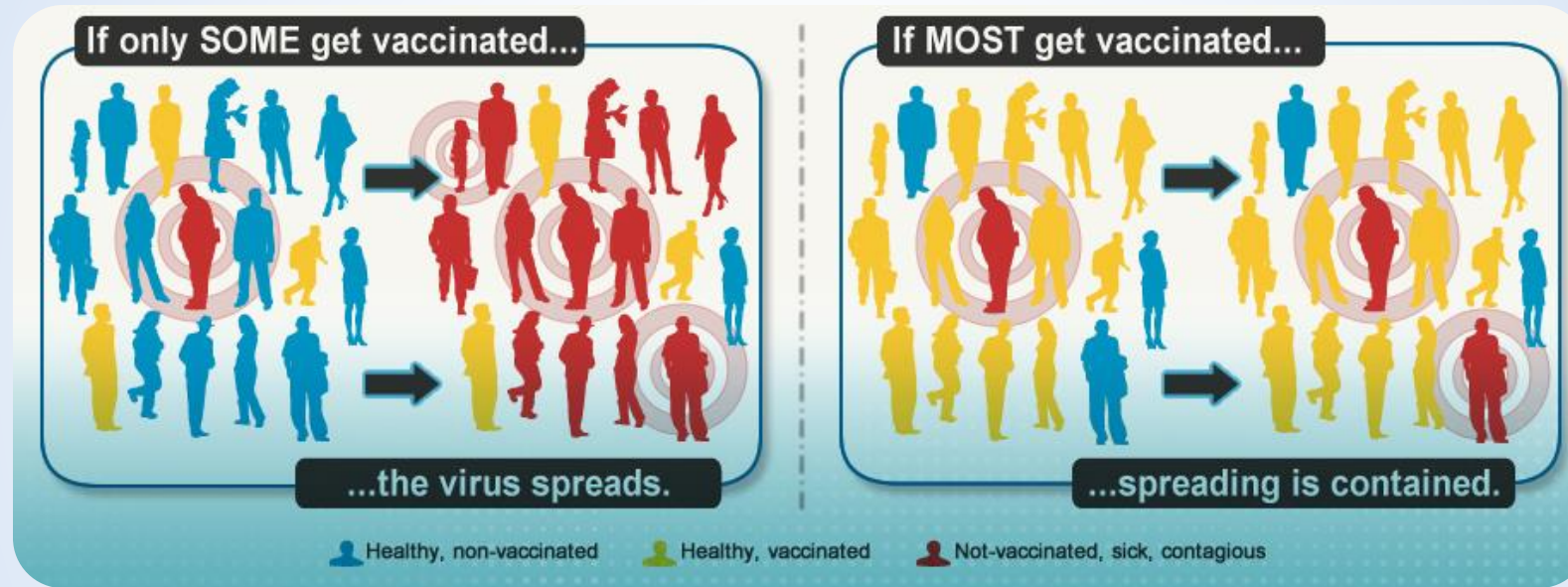
Yours truly,

Tristan



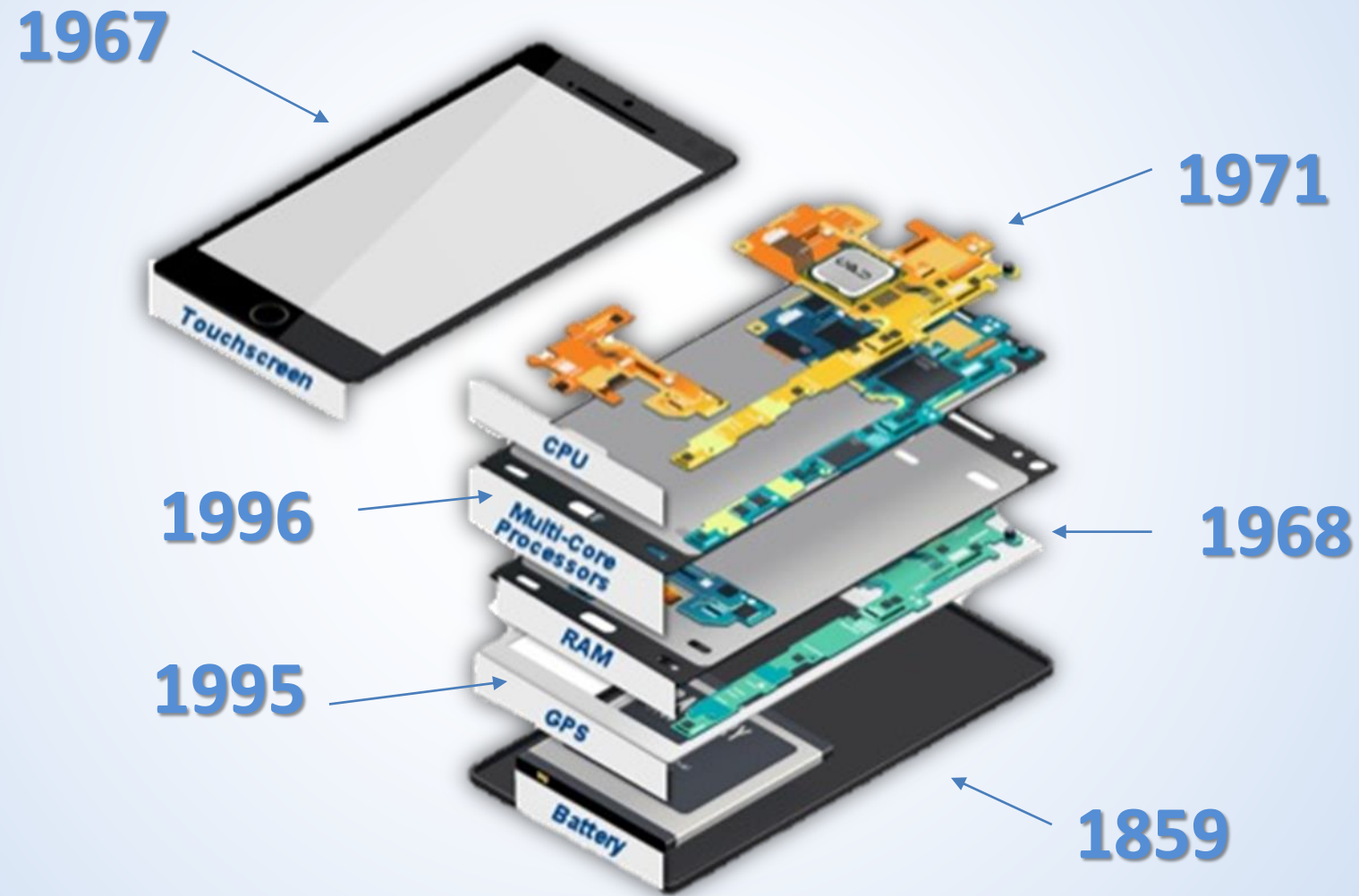
To: Mr. Weigel

Behavioral Vaccines work like any other vaccine



If we work together to provide effective community-wide behavioral vaccines to our young people, how will our resources be impacted?

Combined to Form a Behavioral Vaccine





Seattle Social Development Strategy

Adults instructed to greet and shake hands with five kids NOT in their classroom each day. They also gave out “caught you being good” tickets every day. 10 years later, kids who received this simple strategy had:

- Reduced ATOD initiation
- Reduced aggression
- Had significant improvement on achievement tests
- Were significantly less likely to have engaged in school misbehavior (i.e., cheating, truancy, or being removed from class for misbehavior)

Create a Behavioral Vaccine for Your Classroom

Relationship | Play | Omega-3 | Handshakes

Turtle Breathing | Verbal Praise | Social Development Strategy

Harmonica | Private Reprimands | Praise Board | Random Calling

Note Home for Inhibition | Gratefulness Check-in

Notes of Praise (Peer to Peer/Peer to Adult) | Granny's Prizes



What Can You Do?

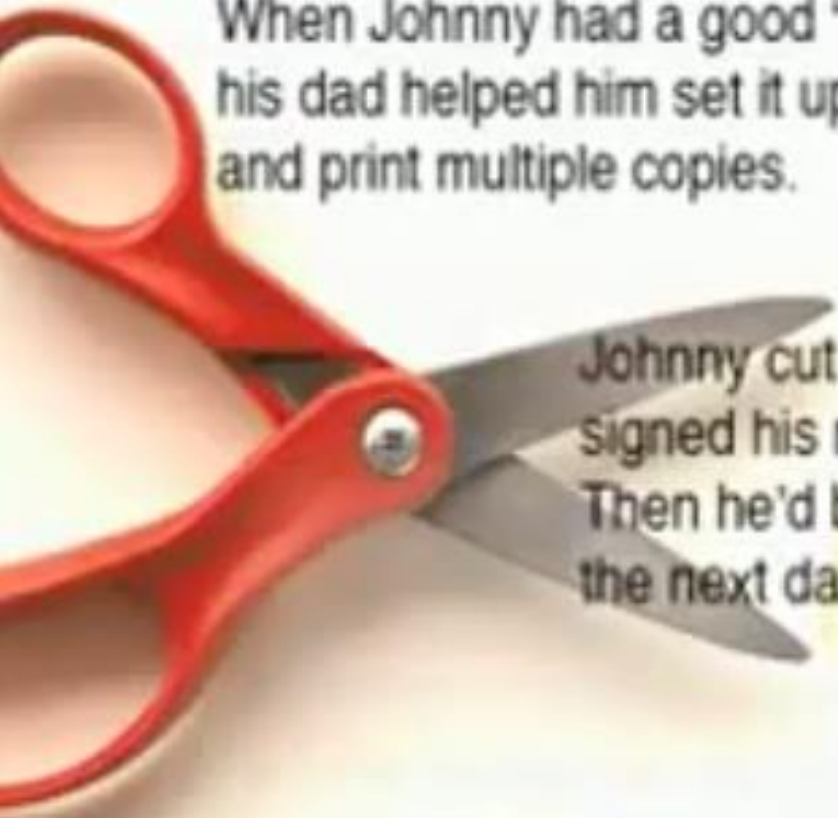
- Support control, choice and autonomy by:
 - ✓ Maintaining a client-centered focus.
 - ✓ Offering options whenever possible.
 - ✓ Communicating clearly, honestly, and respectfully.
 - ✓ Seeking out shared decision-making and participatory planning.
 - ✓ Seeking feedback from clients on a regular basis about their experience.
 - ✓ Continue to education client's on their rights.
 - ✓ Using peer-support programs.
 - ✓ Helping your client to anticipate times of less control ahead and plan accordingly.

The Bottom Line

- Understanding ACES and evidence-based kernels give us the power to significantly impact the trauma trajectory of children and families.
- Remember Kaiser Permanente's diet and nutrition program dropouts? The researchers learned that their very successful intervention wasn't just treating nutrition problems, it was treating personal solutions!



Johnny

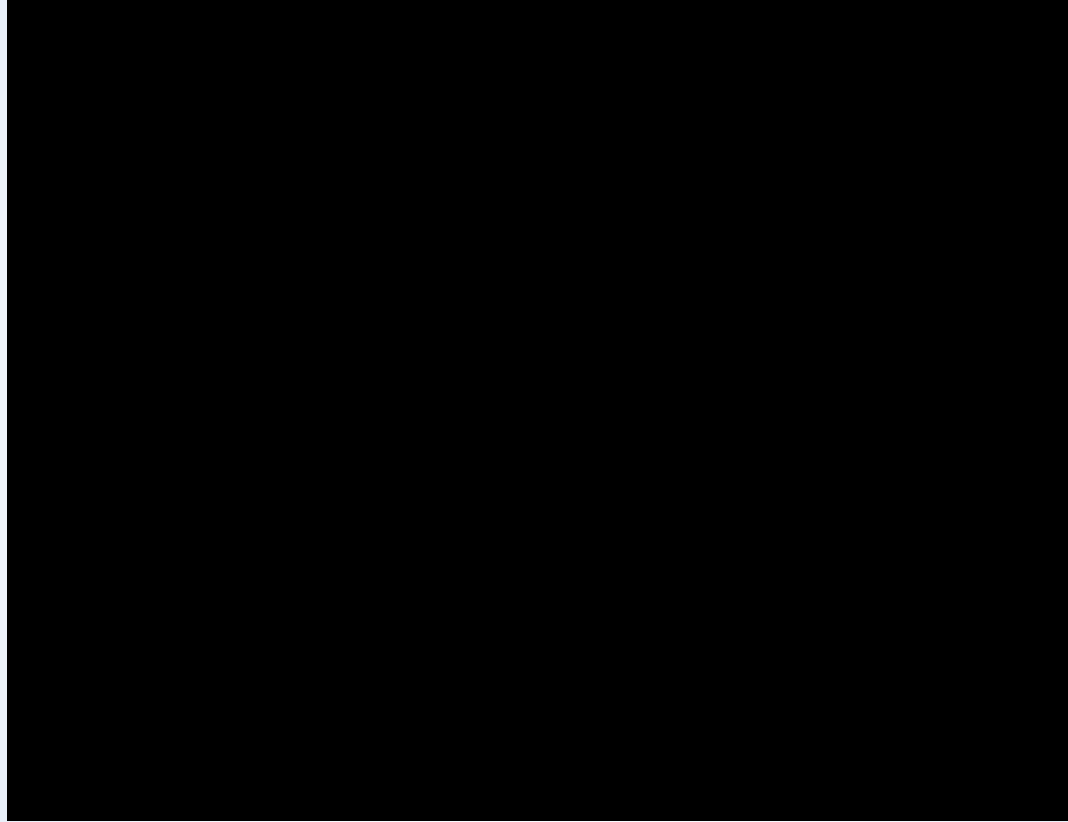


When Johnny had a good **“Thought for the Day,”** his dad helped him set it up on the computer and print multiple copies.

Johnny cut out each quote and signed his name on the back. Then he'd bring them to work the next day.

<https://www.youtube.com/watch?v=IQIxLBggFKc>

Johnny



<https://www.youtube.com/watch?v=IQIxLBggFKc>

Resources

Presenters: Joe Neigel - neigelj@monroe.wednet.edu

Kernels: <http://promiseneighborhoods.org/kernels/>
Or
http://bit.ly/embry_kernels

ACES: <http://www.cdc.gov/ace/index.htm>
Or
<http://www.cestudy.org/>
Or
<http://www.fpc.wa.gov/>
Or
<http://www.cestoohigh.com>

ARC Training: <http://www.traumacenter.org/research/ascot.php>



High Expectations



Dr. Philip Zimbardo

<https://www.youtube.com/watch?v=xQ6wr6vRfGo>

People who receive encouragement and praise from others are more likely to bounce back from adversity.



High Expectations



Bonus Strategies (if time allows...)



The Importance of Contact Support

- Growth cannot occur without supportive relationships.



[https://www.youtube.com/watch?v= 3Xe7tuR4VE](https://www.youtube.com/watch?v=3Xe7tuR4VE)

The Importance of Contact Support

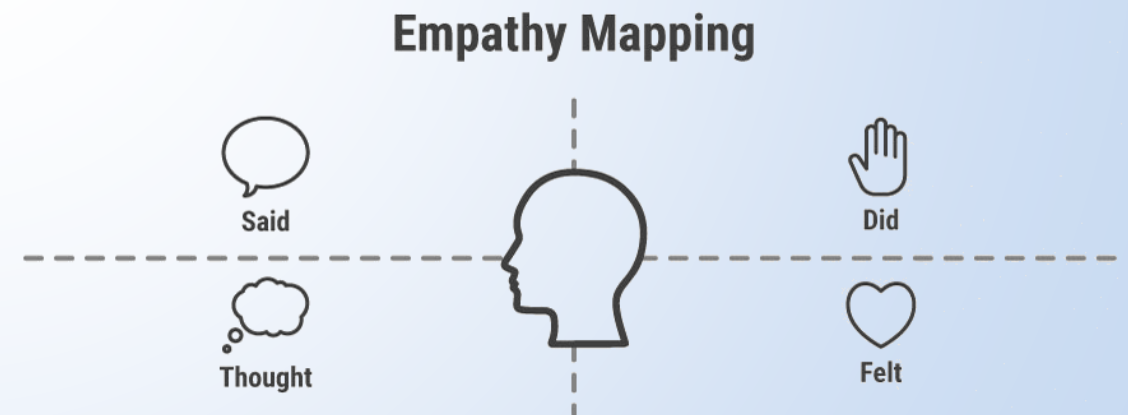
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Practicing empathy

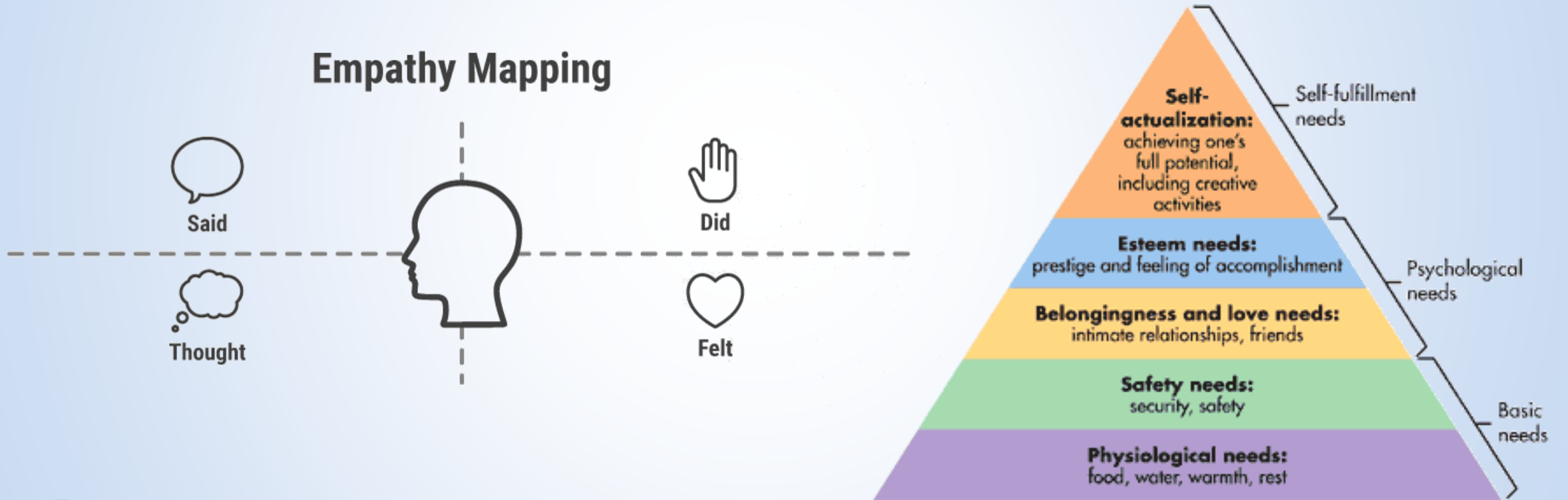
Maintaining empathy is critical to Reducing Problems

- How your client feels will always be at the heart of their success or difficulties. Watch and listen carefully for their real message when conflict occurs.
- Listening for what somebody is feeling and what they need reduces tension and builds relationship. Psychologist Marshall Rosenberg demonstrated that conflict resolution occurs 50% faster if both sides agree to repeat what the other side said before speaking.
- Suspend your judgment and critiques. If you approach a client with the immediate goal of fixing what is wrong, you will not share in the experience of what is wrong. Fixing can come after you establish trust and rapport.



Empathy Map

Gaining unexpected insights about your student





I-Statements

Teaching your staff about I-STATEMENTS may be very useful when they need to communicate difficult or corrective information to a client. They are also key to teaching parents how to engage in respectful communication with their children.

Peer-to-Peer Notes

They almost always begin with the word “I.”

- Explain how YOU feel about the behavior.
- Name the specific behavior that bothers you.
- Suggest what you want to see happen the next time.
- (Optional) Warn of a specific consequence if the behavior continues.





Simple Praise

"So often you find that the students you're trying to

INSPIRE

are the ones that end up inspiring you."

Sean Jenkins

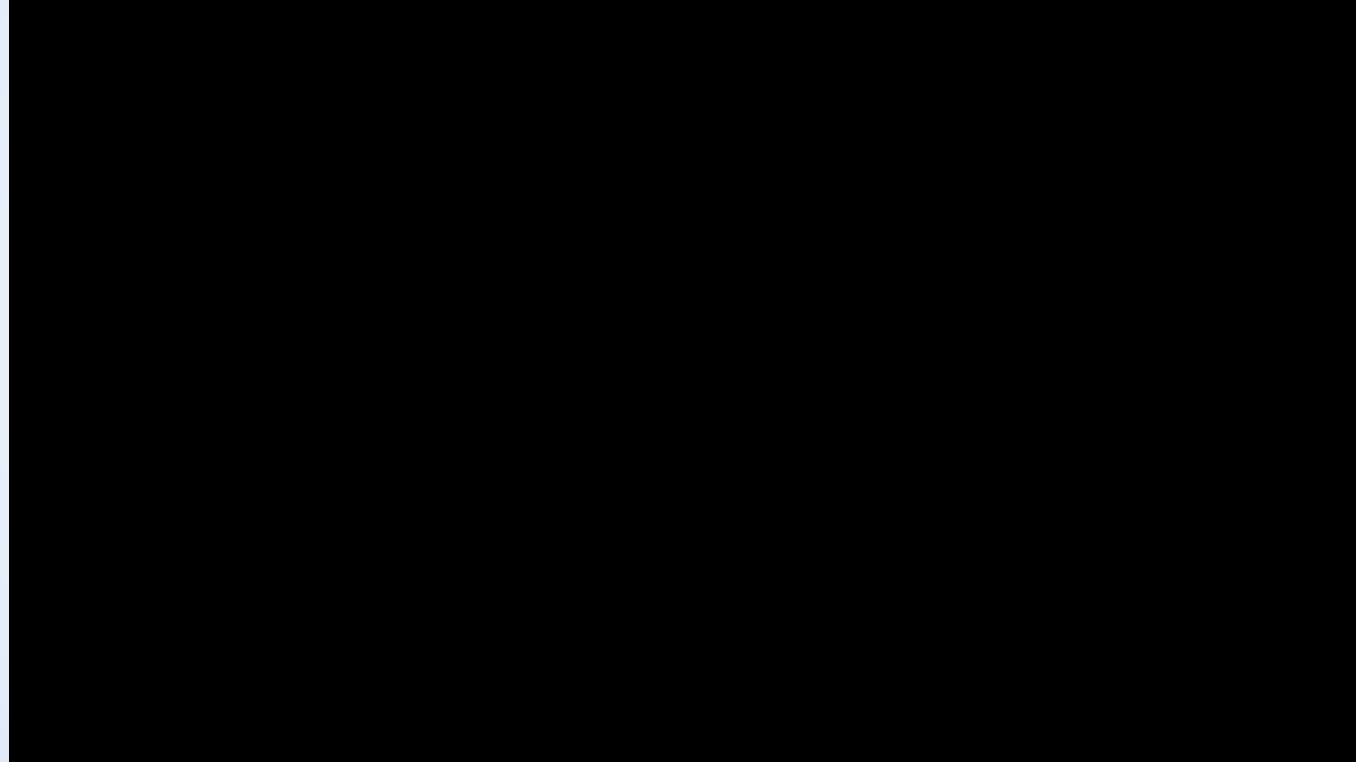


Sean Jenkins

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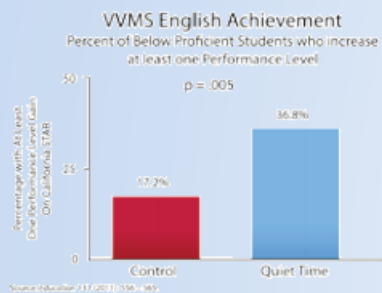
Simple Praise



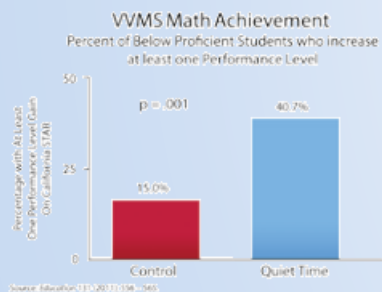
Quiet Time Program

340 Published Studies Demonstrate two 15-minute periods Improve Learning and Health

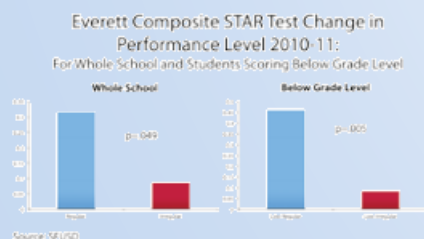
Increased academic achievement



This research, published in the journal *Education*, shows that meditating students improved significantly more than non-meditating students on the California state-mandated English standardized test. This change was after one semester of meditation. This change was seen in lower performing students—students scoring below “proficient” on the standardized tests—who comprised 75% of the student body.

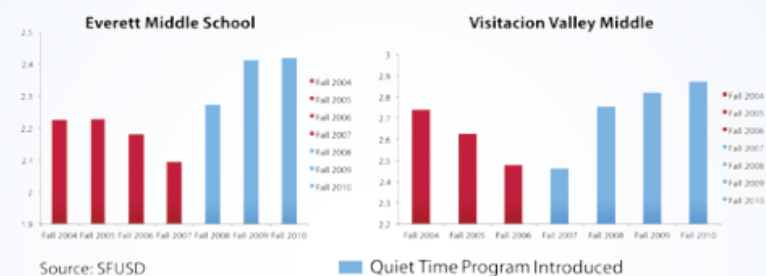


This research, from the same study mentioned above, shows that low-performing students who learned to meditate improved significantly more than low-performing students who did not learn to meditate on the state-mandated Math standardized test.

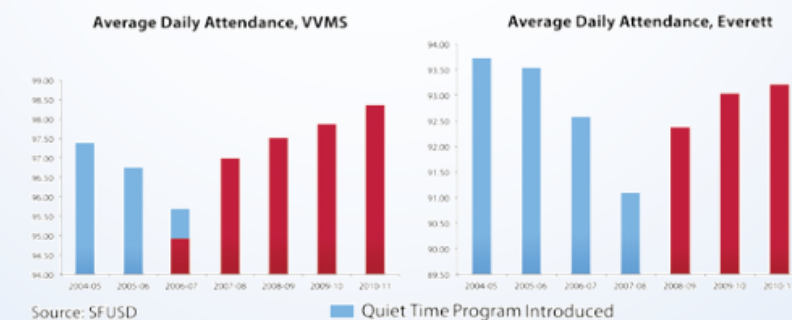


This randomized research study showed significant decreases in psychological distress in teachers and administrators who learned Transcendental Meditation compared to teachers and administrators who did not learn the technique.

Increased GPA and attendance

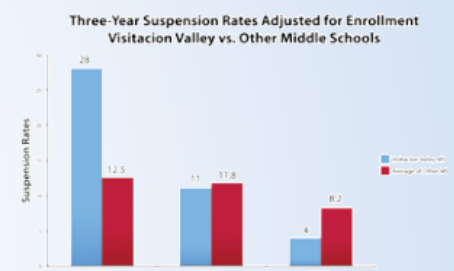


School-wide GPA data for the fall semester shows that academic performance, as measured by GPA, improved at both middle schools in San Francisco where the *Quiet Time* program was introduced. This data indicates that school-wide GPA was falling prior to introduction of the QT program (blue bars) and then increased after the introduction of the program.



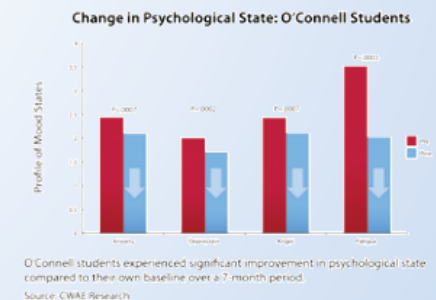
Attendance data from the San Francisco Unified School District showed that average daily attendance was declining at the two *Quiet Time* schools prior to the introduction of the *Quiet Time* program. After the program was introduced, attendance increased markedly at both schools.

Improved mood and behavior



Suspension numbers calculated as total number of incidents divided by total school enrollment. From SF Middle School Accountability Report Cards published 2010-11.

This data shows that suspension rates dropped over time as the *Quiet Time* program became more established at Visitacion Valley Middle School. In the first full year of the program, the suspension rate was 28%, more than twice the District average for middle schools. In the third full year of the program, suspension rates were 4%, less than half the District average.



This study, using well-normed psychological tests, showed that anxiety, depression, anger and fatigue all dropped significantly compared to baseline for students who had learned Transcendental Meditation at John O'Connell High School in San Francisco.

Emmy Werner and Resilience

- Kauai Longitudinal Study began in 1955 and lasted for 40 years.
- Followed 698 children – the entire birth cohort for the year 1955 – from infancy to midlife at key periods of development.
- “High Risk” participants had complications at birth and lived in chronic poverty, in unstable households with poorly educated mothers with mental illness.
- 1/3rd of high risk children grew up to be competent, confident, caring adults that achieved success equal to, or exceeding, that of their more stable peers.

Resiliency Risk Factors

Risk Factors Negatively Impacting Resiliency	
Exposure to social and economic disadvantage	Exposure to impaired parenting practices
Exposure to family conflict and marital dysfunction	Exposure to parent mental health or substance use
Being male	Below average intelligence
Having a difficult temperament	Low birthweight
Coming from a family with more than 4 children	Exposure to Trauma
Relationships with anti-social peers	Genetic pre-disposition

(Do we have control over most of these risk factors?)

Protective Factors Identified by Werner

Protective Factors Positively Impacting Resiliency	
Positive temperament from birth.	Problem-solving and reading skills by age 10
Special talent that gives pride	Willingness to help others
Realistic goal setting	Close bond with at least one emotionally stable non-caregiver adult
Religious belief system that provides stability and meaning in life	Sought elders or trusted adults outside of the family for counsel – teachers most often cited by study participants

Meet Emmy Werner

- Distinguished Friend of the University Award at UC Davis.



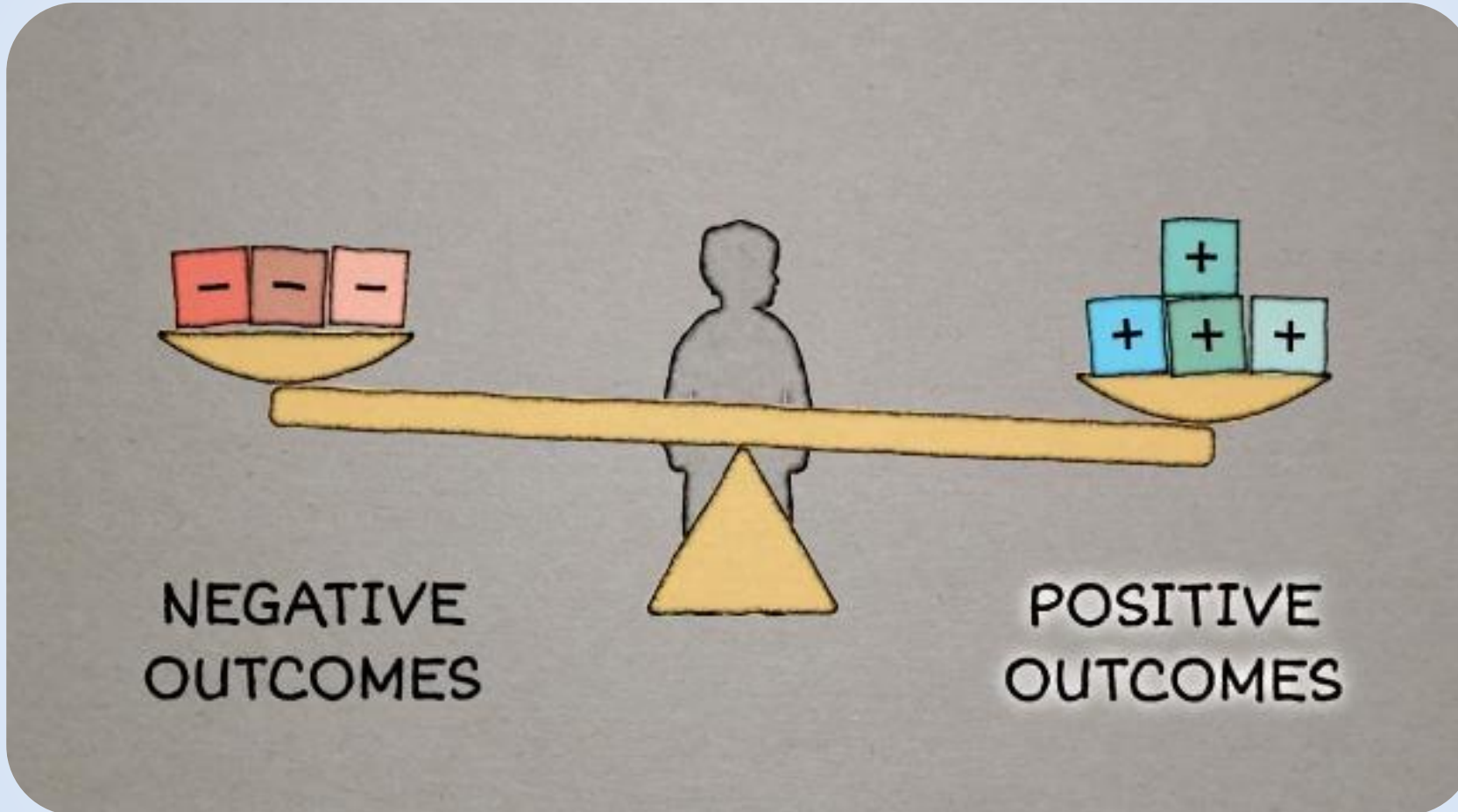
<https://www.youtube.com/watch?v=jzcLo-LHTms>

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The Resiliency Wheel



How Resiliency Happens



<https://www.youtube.com/watch?v=1r8hj72bfGo>

When Escalation Occurs

Approximately 55% of what we communicate is physiological, 38% through tone of voice and just 7% through words.

- Appear calm – don't mirror agitated behavior
- Maintain a neutral expression
- Allow space – proximity can trigger aggression.
- Control your breathing

Verbal Strategies

- Lower your voice and keep your tone even
- Use active listening
- Give the student time to process and follow your directions
- Make time to debrief and repair the relationship

Building Empathy

- **Awkward Moment** is a researcher designed party game that teaches empathy. Evidence shows the game improves student ability to imagine another person's perspective. They also showed more interest in confronting detrimental social stereotypes. (\$19 on Amazon)



- **Playing advocate** reduces the tendency to evaluate evidence in favor of one's own point of view. One classic educational approach is to assign students to take turns advocating both sides of a given debate.
- **Community Gardens** and **Cooperative Construction** are shown by research to increase social skills, cooperation, and communication.



Increasing Self-Efficacy

Helping students believe they can succeed

- **Enactive mastery** refers to a struggling learners' recognition of the degree to which they succeed. Teachers can influence self-efficacy by planning tasks of “moderate challenge,” that is, tasks they can succeed on with moderate effort.
- **Vicarious experiences**, like observing a friend model a task, provides struggling learners with direct guidance about how to do something. Teachers can influence self-efficacy by regularly having learners observe models perform targeted skills or learning strategies.
- **Verbal persuasion** is a process of regularly stating that learners will succeed on specific tasks, and following up with specific feedback outlining what they did to be successful.





Increasing Academic Risk Taking

Students self-select tasks that vary in probability of success.

- **Trust and feelings of safety** in the teacher and **the classroom** are key factors influencing academic risk taking, while fear of failure is shown to create cautious behavior patterns.
- **Peer-based learning** facilitates academic risk taking by creating a smaller audience for failure.
- **Develop a classroom norm** or system that rewards students who support their classmates. Rewards can be as simple as extra points on assignments if the whole class applauds after a presentation.



LOW & SLOW

DE-ESCALATION AND CO-REGULATION STRATEGIES

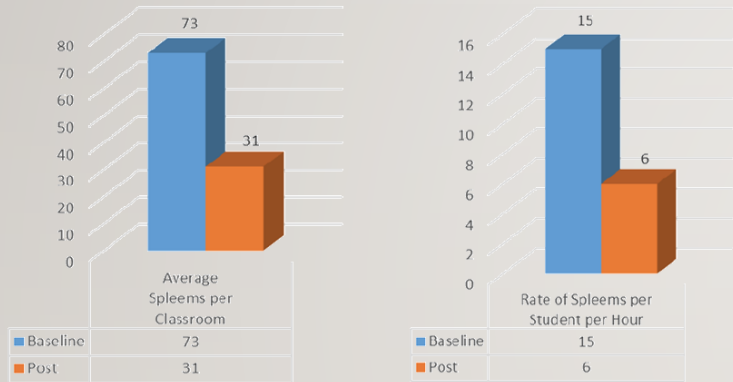
LOW	SLOW
Lower the volume and pitch of your voice	Slow yourself down by slowing down your heart rate
Keep a matter-of-fact tone regardless of the situation	Take slow, deep breaths
Speak in short sentences without a lot of questions	Slow down your rate of speech and make sure to pause between sentences
Don't lecture – talk <i>with</i> your student, not <i>at</i> your student	Slow down your body movements
	Slow down your agenda

SPOTLIGHT PAX GBG

78% REDUCTION IN DISRUPTIVE CLASSROOM BEHAVIOR

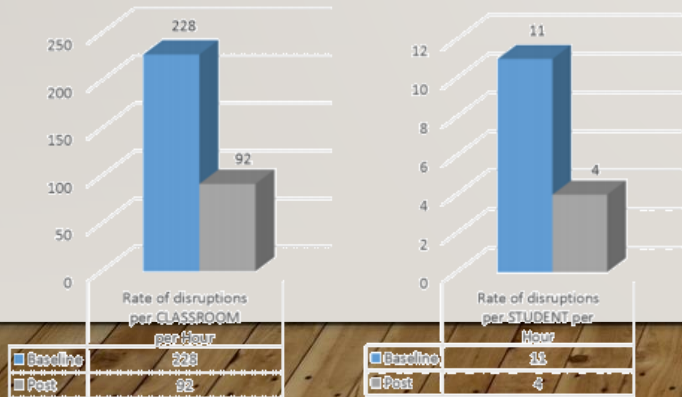
Rate of Change in Disruptive & Distracting Behaviors

15 Minute Secret Observation - Maltby Elementary, Eight Week PAX Game Pilot



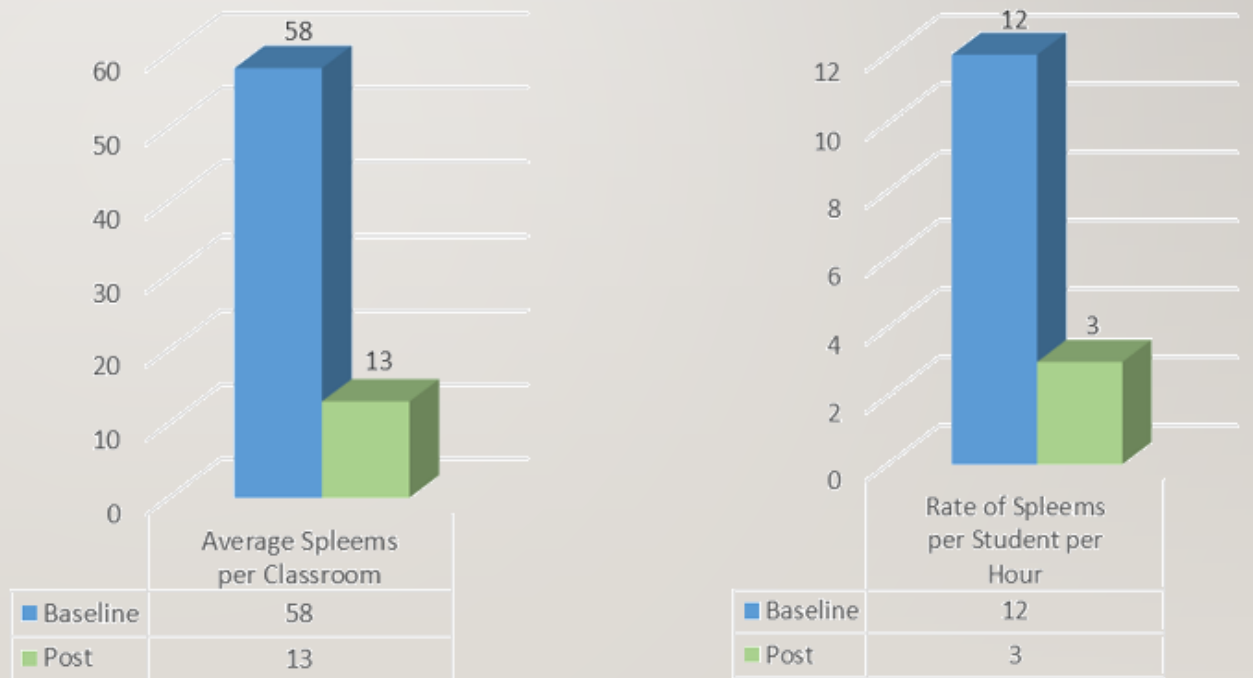
Rate of Change in Disruptive & Distracting Behaviors

15 Minute Secret Observation - Maltby Elementary - 2016/2017



Rate of Change in Disruptive & Distracting Classroom Behavior (Spleems)

15 Minute Secret Observation – Maltby Elementary School 2017/2018

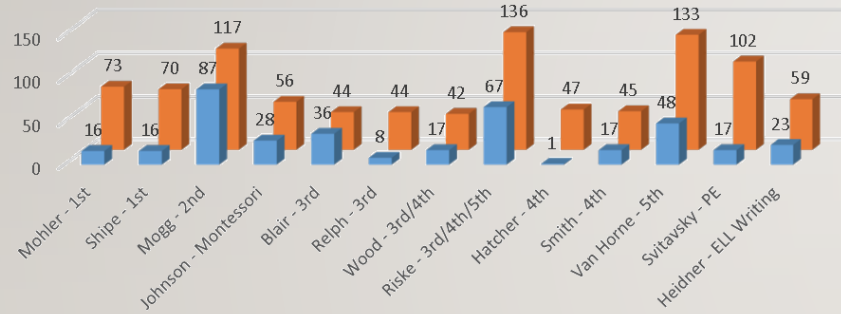


SPOTLIGHT PAX GBG

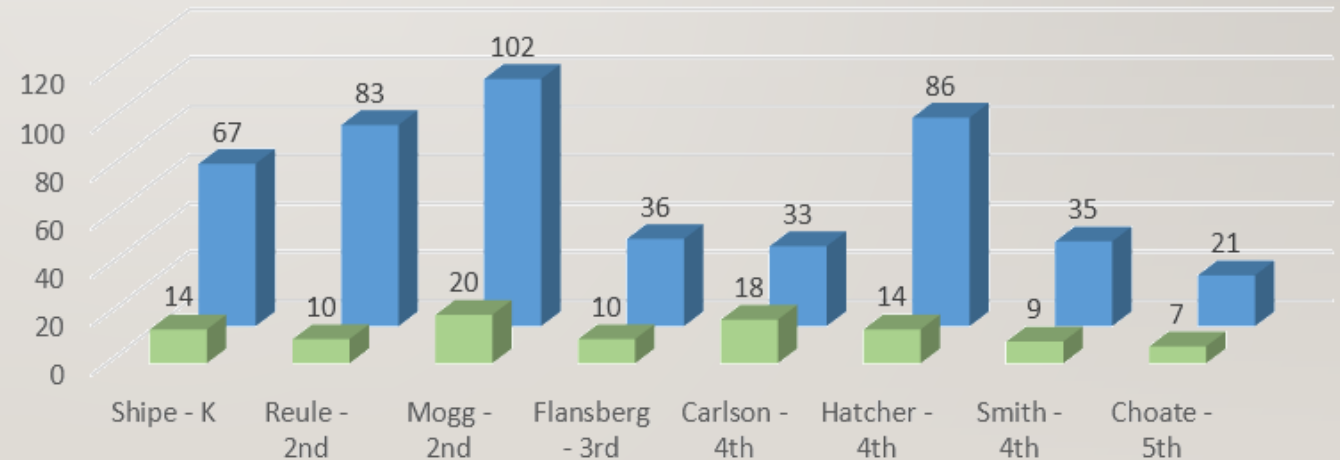
EVERY PARTICIPATING CLASSROOM SHOWS POSITIVE OUTCOMES

Total Spleems Recorded by Classroom
8 Week PAX Game Pilot, Maltby Elementary School

2016 Pilot

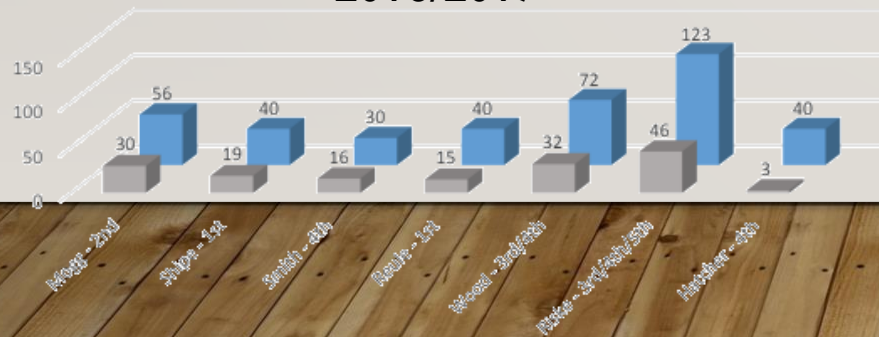


Total Disruptions Recorded by Classroom
15 Minute Secret Observation in September, 2017 & June, 2018
Maltby Elementary School - 2017/2018



Total Disruptions Recorded by Classroom
15 Minute Secret Observation in September, 2016 & June, 2017
Maltby Elementary School - 2016/2017

2016/2017





Emotional Regulation

Trauma Informed Practice recognizes that the executive functioning of our brains control how we evaluate information around us and our abilities to regulate our responses.

Learning to self-regulate our emotions is often learned from parents or caregivers. Therefore, people with Adverse Childhood Experiences (ACEs) may struggle with the ability to monitor and manage their responses to **stress**.