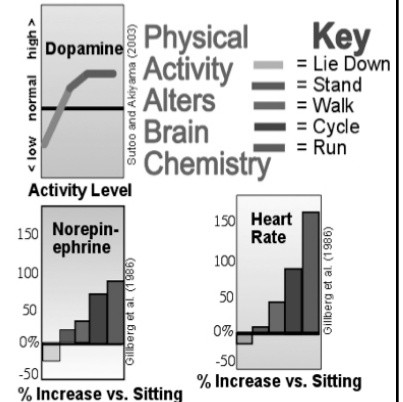




## Tools for Engagement

The Science and Practice of Consistent Involvement of Nearly Every Student

### Start Taking Charge of Managing Your Student's Brain



## Agenda



- ✓ What is the #1 Tool for Engagement?
- ✓ Engaging for Attitude Building
- ✓ Engaging for Cognitive Capacity
- ✓ Engaging for Effort Building
- ✓ Engaging for Better Behaviors
- ✓ Bonus Engagement Strategies

### What's Your Goal?



W-I-I-F-M? \_\_\_\_\_

## Format



- ✓ Observe and Experience
- ✓ Learn the "why" and "how"
- ✓ Discussion
- ✓ Practice the skill
- ✓ Make choices using the strategy

### Feedback Survey is Online; Complete it and Receive a Free Gift

1. Located at: [www.jensenlearning.com/survey](http://www.jensenlearning.com/survey)
2. May be filled out anytime today and for the next few days. It takes just 3 minutes.
3. *Please send yourself an email now to remind yourself to take the survey*
4. *When you complete the survey, you'll receive a free and valuable download "Top 10 Boosters of Student Achievement."*

## Why the Difference? Why Do Some Kids Engage?

1. Why do you think kids do (or don't) participate in most classrooms?
2. What responsibility do you have in this process?

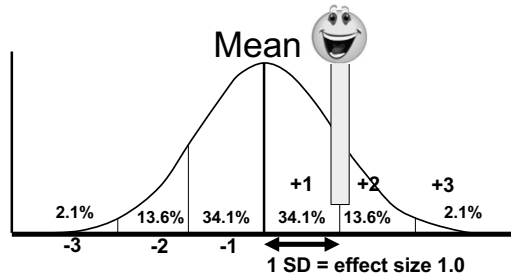
## How Much Do You Matter?



Recent research suggests that in total, approximately **50-60%** of the variation in the performance comes from their school experience with the remaining being due to genes, student background, home life or random influences.

**SOURCES:** Cuttance, P. (1998); Haycock, K. (1998); Wenglinsky, H. (2002); Rivkin, S., Hanushek, E., & Kain, J. (2005); Kane TJ, & Staiger DO. (2008); Hattie, JA, (2010).

## How Do Effect Sizes Actually Translate to Real Student Gains?



The mean is the average; an effect size of 1.0 = 34 point percentile change in scores

## Does Strong Teaching Matter?



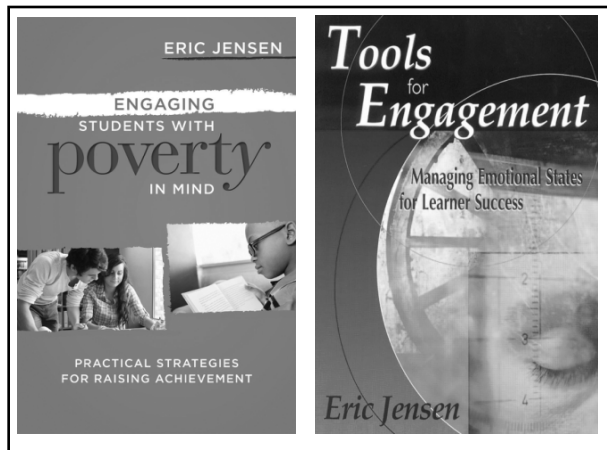
“If a student had a good teacher (*one standard deviation of quality above the mean AYP*)

as opposed to an average teacher for five years in a row, the increased learning would be sufficient to close entirely the average gap between a typical low-income student and a higher-income student (i.e. one not on free or reduced lunch).”

Hanushek, E. (2005). The Economics of School Quality. *German Economic Review* (3), 269-286

## Bottom Line

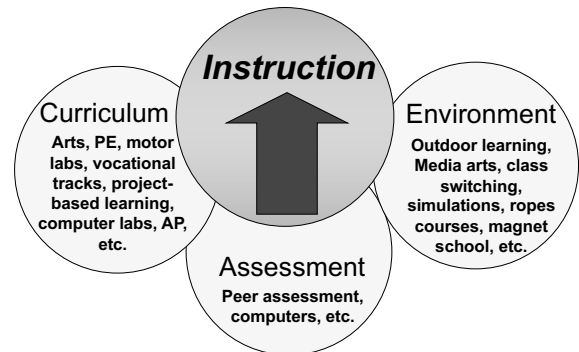
- The worst thing kids say is, “I am bored.”
- Engagement is correlated w/ achievement
- Less engagement adds discipline issues
- Everything you teach can be engaging
- It takes mindset, strategy and practice
- You must let go of every single excuse
- Start w/ just 1, practice until automatic
- Add a new strategy every week and enjoy



## Feedback Survey is Online; Complete it and Receive a Free Gift

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[www.jensenlearning.com/survey](http://www.jensenlearning.com/survey)
2. May be filled out anytime today and for the next few days. It takes just 3 minutes.
3. *Please send yourself an email now to remind yourself to take the survey*
4. *When you complete the survey, you'll receive a free and valuable download "Top 10 Boosters of Student Achievement."*

## Possibilities for Engagement



## The Secret is...

...dozens of little things, **AND just one big thing.** Start noticing little things like timing, word choice, what was done before and after the activity, too. Most of what works is invisible to the untrained eye and ear. *Let's now start with the little things.*



Engagement  
**NEVER** Works  
in a Vacuum;  
the Class  
Climate  
Matters!



## Successful Engagement is Based on These Big Three "Invisibles"

### 1. Respect

You show respect \_\_\_\_\_, they give it to you. You cannot \_\_\_\_\_ respect, *only earn it.*

### 2. Relationship

Show \_\_\_\_\_ about them, first, *before* they will \_\_\_\_\_ about you.

### 3. Hope

You must never, ever, give up on them; they will sense it and \_\_\_\_\_ on you, too.



## Summary

1. An engaging classroom does NOT mean you must be an entertainer or comedian.
2. Make class less like, "Stand and Deliver" and more like, "Dancing with the Stars."
3. When you constantly engage students, their understanding and recall goes up.
4. Your kids will enjoy class more, and they will act out less and you will reduce burnout.
5. Everything learned today can be used with little practice; but it only works if you do, too.

## Insider Knowledge You Need!

Here's how the brain's response systems work, the strategies for success and the exceptions to the rules

The #1 **BIG IDEA** is that

# “STATES”

Are the Key to Engagement!

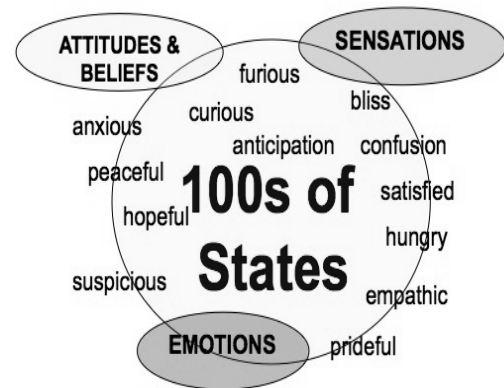
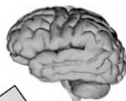
## What are States?

### 1. Electrical Signals



### 2. Chemical Signatures

*Signatures*



## Why are States So Critical?



Complex Learning Requires Background Knowledge, Working Memory, Processing Skills, Long-term Retrieval and Risk-Taking. These all Require Positive Learning States.

## States

1. States usually last for s\_\_\_\_\_ or minutes, moods last for hours or days.
2. We experience 1\_\_\_\_\_ of states every day.
3. More states i\_\_\_\_\_ learning than help it.

**Under High Stress, Brains Engage in Bottom-Up Decision-Making for a More Reflexive Strategy**

Arnsten AF. (2010) Stress signaling pathways that impair prefrontal cortex structure and function

### Fight, Flight or Freeze?

Once the **Amygdala** is activated in class, it takes *at least 30 – 90 minutes* to calm down for higher order thinking.

Threats, insults, put-downs, even certain looks and sarcasm may activate the amygdala.

### How Much Input Does the Amygdala Have to the Rest of the Brain?

Young MP, Sumner JA. (1994) Analysis of connectivity: neural systems in the cerebral cortex. Rev Neurosci. 6:227

### Two Paths of Stress Response: Homeostasis (healthy) or Allostasis (maladaptive)

**Homeostasis**  
Healthy Brain Stress Response

**Allostasis**  
Prolonged Response OR Inadequate Response

Repeated "Hits" OR Trauma

### How Your Brain's Two Filters Choose Stress

Relevant? Control?

**Greater Stress** ↔ **Challenged or Excited**

Shaywitz AJ, Benayahu Y, et al. (2011) Neurobiological Bases of the Cognitive Effects of Stress on Memory and Synaptic Plasticity. In: Handbook on Stress: Neuroendocrine and Psychological Effects of Stress on the Brain, ed.

### ✓ De-Stress?

- 1) r\_\_\_\_\_ -building and reassurances of support
- 2) giving students more c\_\_\_\_\_ over their time in school
- 3) teach stronger c\_\_\_\_\_ skills
- 4) learn s\_\_\_\_\_ ma\_\_\_\_\_ skills

### Qualities of States

1. States usually “run a c\_\_\_\_\_” and one state will often lead to another state.
2. States are self-\_\_\_\_\_ ; the longer you’re in a state, the more comfortable it becomes.
3. We all range from being very flexible to very inflexible with our states.

### Which States Do You Foster?

- anticipation
- safety
- curiosity
- trust
- confusion
- hope
- confidence
- hunger to learn

OR

- boredom
- fear
- isolation
- hostility
- frustration
- despair
- insecurity
- disinterested

That’s why...  
There’s No  
Such Thing as  
an Un\_\_\_\_\_  
Student... Only  
Students in  
Un\_\_\_\_\_  
States!



### 5 Takeaways for Today

- ✓ States: The #1 Tool for Engagement
  - ✓ **Engaging for Effort Building**
  - ✓ Engaging for Attitude Building
  - ✓ Engaging for Cognitive Capacity
  - ✓ Engaging for Better Behaviors
- Bonus Engagement Strategies*

### Student Effort Made Simple: What are Your TOP Tools?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_



### Fast-Track Relationship Builders to Jumpstart the Long-term Process

- 1 and Done**  
Do 1 favor or connection or show of empathy  
SO powerful, *students remember it well*
- 2’ for 10**  
Invest 2 min./day for 10 consecutive days  
with a student most “needing” a connection
- 3 in 30**  
Discover 3 things (other than a name)  
about every student you have in 1<sup>st</sup> 30 days

### 3 Relationship Builders

- ✓ “Me Bag” Activity  
(from teacher to the class)...  
Share to the class 4-6 items that are meaningful to you from a paper bag
- ✓ Writing assignment 1 (read 30 in 30 days)  
(from student to peers)...  
“What my peers don’t know about my life away from school.”
- ✓ Writing Assignment 2  
(from student to teacher)...  
“What I wish my teacher knew about me...”



### Feedback! Your Favorites for Formative Assessment



1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

### Review Effect Sizes

Effect size is a standardized measure of the relative size of the gain (or loss) of an intervention.

- 0.00 or less = Negative effect**
- 0.00 – 0.20 = Mild, unclear effects**
- 0.20 – 0.40 = Small-moderate effects**
- 0.40 – 0.75 = Moderate-Strong**
- 0.75 – 2.00 = Strong to Extreme**

Coe, R. (2002). "It's the Effect Size, Stupid. What effect size is and why it is important." Paper presented at the Annual Conference of the British Educational Research Association, University of Exeter, England, 09/12-14/02.

Which of these two have a greater effect on student achievement?

1. “Good job.” \_\_\_\_\_
2. “I like that you refused to give up. That extra **effort** is the habit you need to get that job you wanted.” \_\_\_\_\_

### “S-E-A” Feedback = \_\_\_\_ ?

- ✓ **Strategy:**  
“Did I use (or switch to) the best strategy to succeed?”
- ✓ **Effort:**  
“Did I use enough effort?”
- ✓ **Attitude:**  
“Have I used positive self-talk and the growth mindset for this task?”



Martinez, L. (2013). A Theory-Based Meta-Analysis of Research on Instruction.

### Attribution Says...

When you “attribute” cause and effect, the effect size is huge

- Link the behavior to **something you have done in the past**
- Link the behavior to **a probable future outcome**, so you have a strong reason for today’s effort

Dweck, C. S. (1999). Self-Theories: Their Role in Motivation, Personality, and Development.

## Add Attribution to “S-E-A” Feedback and Get \_\_\_\_\_

- “I loved how you tried many **strategies** on that problem until you got it. *That may help you get into the college you want.*”
- “I like that you refused to give up. That extra **effort** may help you reach that goal of yours.”
- “Before you began, you thought you could succeed. Bet that positive **attitude** helps you get the job interview you want.”

## 3M Feedback = 1.13

- ✓ **Mark:**  
“Where am I at right now?”
- ✓ **Map:**  
“Where am I going ?”
- ✓ **Method:**  
“What do I do next to reach my goal?”



William, D. & Thompson, M. (2007) "Integrating Assessment with Instruction: What will it take to Make it Work?" In The Future of Assessment: Shaping Teaching and Learning, edited by C.A. Dwyer, Mahwah, NJ.: Lawrence Erlbaum Associates.

## States Rule: All Behaviors 100% are State-Dependent

- To get the behavior you want, first *notice what state they're already in.*
- Then ask yourself *if they're in a state* that would allow them to say, “Yes.”
- If not, change their state to a more receptive state *before* asking them for the eventual behavior you want.



## All-Time Best Hungry States

1. Antici \_\_\_\_\_
2. Cur \_\_\_\_\_
3. Suspi \_\_\_\_\_
4. Chal \_\_\_\_\_
5. Suspe \_\_\_\_\_
6. Perpl \_\_\_\_\_
7. Intri \_\_\_\_\_
8. Conf \_\_\_\_\_
9. Skep \_\_\_\_\_
10. Inqu \_\_\_\_\_
11. Expe \_\_\_\_\_
12. Puz \_\_\_\_\_



## How to Increase Buy-In for Skill-Building and Effort

**Elementary:** Be gross, use the “next grade up” challenge, simple privilege, extra curiosity, teacher enthusiasm, friendship-maker, and use mystery (a box, prop, or clothing change)

**Secondary:** Stair-step the activity, use peer pressure (use what last class did or teams), big challenge, status-climber, use positive relationship or make it a bit edgy or risky

## To Boost Effort, Change States

Here are 3 examples of how to evoke curiosity

- “Oooops! I just checked my watch. It is later than I thought. Please stand up.”
- “Just thought of something...Please angle to your side and find a partner. Once you have found one, say, ‘You are it!’”
- “Hey, you guys have been sitting WAY too long. Here is an idea. Everyone up!”



### To Elicit Those Hungry States:

Use compelling questions...

- ✓ “Got a question for you...How many would like to finish up early today?”
- ✓ “Who would like to have choice on the topic you pick and who you work with?”
- ✓ “How many of you would like a new way to learn this much more quickly, plus still have fun doing it?”

**GOAL:** Put Everyone at your Table in "Hungry to Learn" State.

The most important state change you can do is from non-productive states into hungry ones.

Your Strategy: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### What Have I Learned So Far?

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### Behavior-Building The TOP 5

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

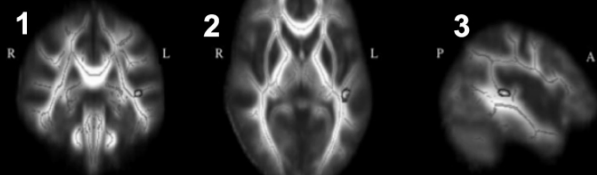


Teachers who criticize, use negative attitudes and sarcasm as behavior management may activate the stress areas of the student's brain.



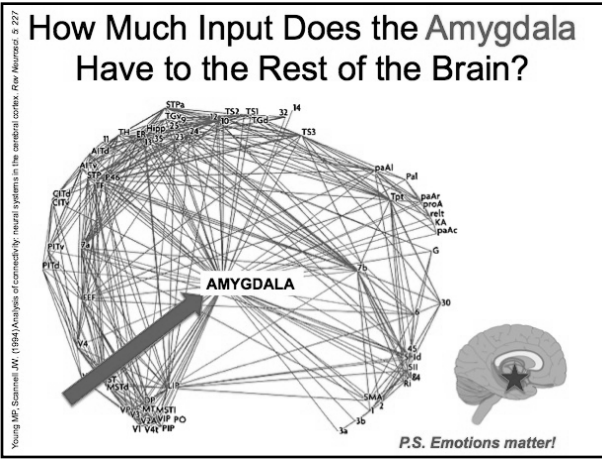
This activation alters the student's ability to think and learn.

### Verbal Abuse Alters the Brain's Key Behavioral Pathways



3 regions (noted in RED) had significantly reduced "outbound" pathways for neural information. These are associated with 1) drops in verbal IQ and verbal comprehension, 2) depression, dissociation, and limbic irritability and 3) anxiety.

Choi J, Jeong B, Rohan M, Polceri AM, Teicher MH. (2009). Preliminary evidence for white matter tract abnormalities in young adults exposed to parental verbal abuse. *Biol Psychiatry*. 65, 227-34.



### Fight, Flight or Freeze?

Once the amygdala is activated in class, it takes *at least 30 – 90 minutes* to calm down for quality learning.

Amygdala

Threats, insults, put-downs and sarcasm activate the amygdala

### Open or Closed State?

In closed states, behavior is predictable; it's usually "No way" or "Whatever." To get a more positive response, shift the state first. Always think... "Better states get better results!"

### To Get the Behavior You Want, You Often Need a 2-Step Process (State change 1st, then the Behavior Request)

### As an Example...

Before asking students to go to another table, get supplies, stretch, or create a group... first, ask them to either:

- 1) interact with a neighbor
- 2) take a deep breath
- 3) use hands or feet, lead with action!

Get them in motion before you ask them to get going!

1. There is no such thing as unmotivated \_\_\_\_\_, only learners in \_\_\_\_\_ states.
2. More states are \_\_\_\_\_ to learning than are supportive.
3. If you don't like the state you are seeing, then you can \_\_\_\_\_.
4. Pay attention to open and \_\_\_\_\_ states in your learners.

## Strategies to “Pre-Engage”

“Take in a slow, deep breath...hold it...and now slowly...let it out.”

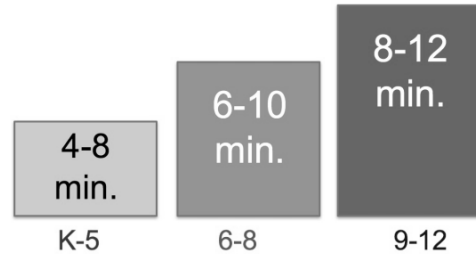
“Please angle your chair to face three others, so now you’ve got a group of four.”

“Let’s vote. How many of you think option #1 is most plausible? Raise your hand.”

*involve, never stop!*

## When You Teach, Do This

**Limit content input!** Go 4-8 min. at grades K-5, then 6-10 min. at grades 6-8 and 8-12 min. at 9-12.



## “3P” Failing Responses

- Punishment Model** – Stop trying to get even or get revenge for how you believe you have been insulted, put down or hurt. Always say, “How do I help this student graduate job or college ready?”
- Power Model** – Stop trying to show “Who’s the boss?” Power is all about control. Your students HATE being controlled. Be an ally, not a dictator. Help students gain MORE control, not less.
- Personally Taken Model** – Can you see the world from his (or her) point of view? It is not all about you; you’ve already graduated! Help students “figure out” how to survive in a healthier way.

## 3 Responses *that Do Work*

- Reinforcement Model** – Affirm what is good, not what you dislike. Affirm that you like **WHAT** is happening. *“I love that you stand up for yourself. If you don’t do that, life is hard.”*
- Relationship Model** – Be an ally, not a dictator. *“Now, some adults might not like HOW you stand up for yourself. But I will always be on your side to help you survive, stay in school and graduate.”*
- Redirect Model** – Give students tools. *“I’ll give you 2 ways to get what you want without ever getting in trouble again. I’ll show you right after class (WHEN). Are we good?”*

## Managing Student States

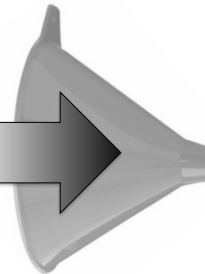
Take on the role of proactively managing your students’ states. Your students will learn more and misbehave less. The feeling of having more control over your day lowers your own stress. **Now let’s explore some strategies!**



## Top 20% Teachers Consistently Orchestrate Key Learning States

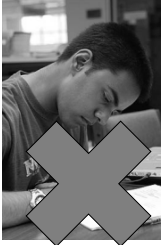
Bored  
Frustrated  
Giddy  
Hungry  
Angry  
Hysterical  
Apathetic  
Suspicious  
Annoyed  
Revengeful  
Suspicious  
Dumfounded  
Sleepy  
Delirious

Anticipation  
Curiosity  
Suspense  
Inquisitive  
Intrigue  
Confusion  
Expectant  
Puzzled  
Challenged



## Focus on Where You Have the Greatest Influence Right Now

Personality



IQ



Character



States!



## Affirm a Better Identity

1. **Affirm the Content and Student Identity.** *“I love that you stand up for yourself. You show me your leadership and I like that.”*
2. **Use Social Tools** – *“At our school and especially in our class, here’s how we get what we want. You’re a leader not a bully.”*
3. **The Relationship Model** – *“You’re a good kid; after class, I’ll show you how to bring out that leadership inside you. It will keep you out of trouble and help you graduate.”*

## Review on States

1. What are states? \_\_\_\_\_
2. States last for \_\_\_\_\_; moods can last for \_\_\_\_\_.
3. States include the att \_\_\_\_\_, our emo \_\_\_\_\_ and sen \_\_\_\_\_
4. States typically (but not always) \_\_\_\_\_ to other states.
5. The best teachers catch \_\_\_\_\_ states before things get \_\_\_\_\_.
6. Our behaviors are \_\_\_\_\_ dependent.

Engagement & Redirects: What Have You Noticed so Far?

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

What Have I Learned So Far?

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## 5 Takeaways for Today

- ✓ States: The #1 Tool for Engagement
  - ✓ **Engaging for Attitude Building**
  - ✓ Engaging for Better Behaviors
  - ✓ Engaging for Effort Building
  - ✓ Engaging for Cognitive Capacity
- Bonus Engagement Strategies*

## Attitude-Building Made Simple: Your TOP 5

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_



### Brief Activity Qs to Strengthen Positive Attitudes

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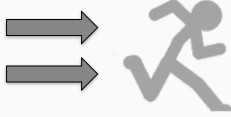
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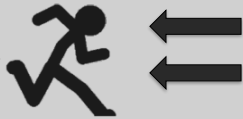
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## Winds We Experience

Tail Winds



Head Winds



## Impact of H/T Understanding

- ❖ **Headwinds** get attention because 1) they vary and 2) have to be dealt with.
- ❖ **Tailwind** benefits and resources may be enjoyed, but we habituate quickly.
- ❖ **Relevance** of a person's headwinds is that some believe they have been treated unfairly and consequently, they are more inclined to notice them and habitually complain.

David A. Grivich, T. (2016). The headwinds/tailwinds asymmetry: An availability bias in assessments of barriers and strengths. *Open Soc Psychol*, 11, 52-551

Identify and Share Nearly Invisible "Tailwinds" that Make your Life Easier



**Examples include:** community trends, a helpful partner, your ethnicity, access to Internet, friendships, having a college degree or certification, school leadership, white privilege, support, groups you're in, your family or students that appreciate you, books, ELL, socioeconomic class, etc.

### Classroom Activity Qs to Foster Positive Attitudes

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The Most Important State of All is...



Your own state! Students respond to it constantly.

## Manage Your Own State

- Movement**                      **Plan lessons well**
- Relaxation**                    **Music you like**
- Less lecture, more student activities**
- Exercise**                        **Good nutrition**
- New Professional Development skills**
- Hydration**                    **Enough sleep**
- Yoga**                            **Snacks/munchies**
- Dress right (with good fitting shoes!)**

When you read  
your student states well and  
learn to elicit any state you  
want, your teaching  
transforms from  
work into pleasure.  
In the right state,  
life is good.

1. Before you get a behavior change, you will want to get a \_\_\_\_\_ change first.
2. Once you learn how to influence s\_\_\_\_\_ you can influence \_\_\_\_\_.
3. All meaning-making and memories are \_\_\_\_\_-dependent.
4. Ultimately, empower your learners to manage their ow\_\_\_\_ s\_\_\_\_\_.
5. The most important state in the classroom is \_\_\_\_\_.

## SUMMARY: The Effects of States on Students

- States are the split second "snapshot"
- States affect cognition and behavior
- Poor states lead to less effort and discipline issues
- Better states mean better learning
- You can affect students states
- Sometimes it takes two steps

## 10 Positive State Shifters

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

# FREE

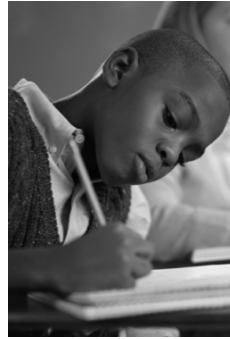
Eric Jensen  
**Newsletter!**



*Get relevant and highly practical tools, every month.*

Simply leave your name, home email address, (and state) on any piece of paper.

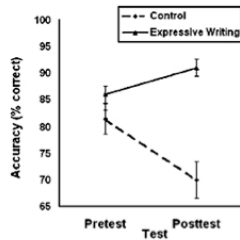
## Capacity-Building (a Must) What is Your TOP 3?



1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

## 10 Minute Pre-Test Writing Activity Boosts Scores 5-17%

Ramirez, G. and Beisak, S.L. (2011). Writing about testing worries boosts exam performance in the classroom. *Science*, Jan. 14;331(604):211-3



Reduces Anxiety Quickly

### Quick Ideas for Instant Engaged

1. Rewrite a key phrase or quote in your own words
2. Write a gratitude
3. Reflection: "What I am mulling over now?"
4. Summarize the content in one paragraph
5. Make predictions based on content

W \_\_\_\_\_



1. Why do you think the 1<sup>st</sup> very BIG IDEA was all about states?
2. Reflect on how this concept applies to your **own work**.
3. Share an example of how this applies in **your personal life**.



## 3 Most Important Things (about states)

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Which Factor, (When Tested at Age 5)  
is a *Far Greater Predictor* of Student  
Success at Age 11 than IQ?



Alloway, T.P. & Alloway, R. G. (2010)

- a) reading scores
- b) motivation level
- c) math scores
- d) attitude
- e) working memory

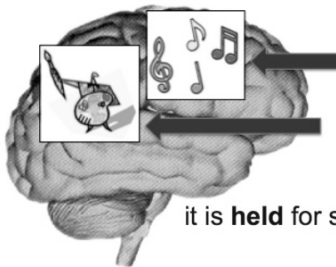

# Strategies

*Heads-up!* Here's what you personally can do to improve student achievement...

What Skills Matter Most for the Student's Academic Success?

- ✓ Processing
- ✓ Attentional focus
- ✓ Locus of control
- ✓ Memory (working)
- ✓ Prioritization
- ✓ Ordering/sequencing
- ✓ Deferred gratification

What is in Our Working Memory?



**The content is...**  
**sounds**, called a  
"phonological loop"  
**OR**  
**pictures**, or visual-  
spatial "sketchpad"  
**AND**  
it is **held** for seconds or moments  
**AND**  
it is **manipulated** or processed by our brain

## Working Memory

- ✓ Working memory is the driver of cognition. It's required for problem solving, language, math, prediction and every higher order process.
- ✓ Research shows that kids in poverty have weaker working memory.
- ✓ Working memory is a teachable skill. Give students practice in this daily.

Luethi, M., Mohr, B., Schar, C. (2008). Stress effects on working memory.



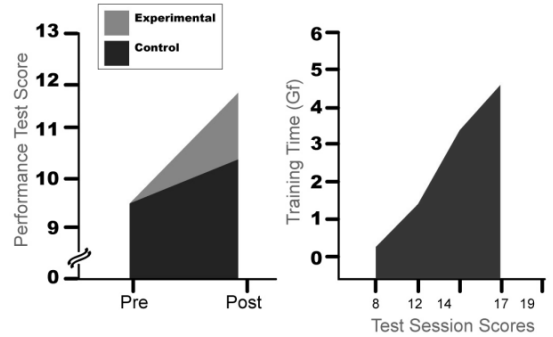
## Working Memory and Math Correlation? Over 100 Studies

Studies have demonstrated that working memory is a “launchpad” and top predictor in mathematics achievement in primary school age children.



Passolunghi, M.C., et al. (2008)

## Fluid Intelligence Can Be Taught

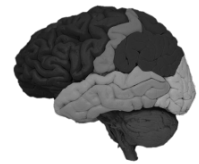


Jiangyi SM, Buschkuhl M, Jordanes J et al (2008)

# Strategies

*Heads-up!* Here's what you personally can do to improve student achievement...

## Core Brain-Changing Factors



- Buy-in/Relevance
- Meaningful Goals/Evidence of Learning
- Interdependency
- Quick Initial Learning Curve
- Increasing Challenge & Complexity
- Quality Feedback
- 10 - 14 min. per day/ 3-5X per wk. for 8 - 12 weeks

## Buy-In Strategies

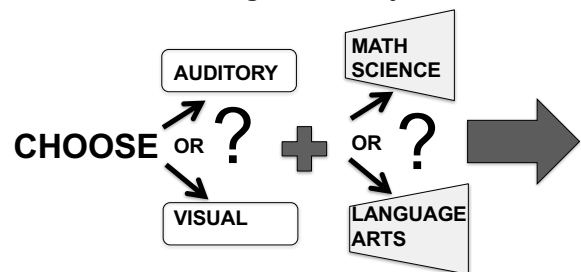
### K-5 STUDENTS:

The “bigger kid” challenge, fun, teacher enthusiasm, curiosity, be gross, friendship-maker and mystery.

### GRADE 6-12 STUDENTS:

Be edgy/risky, use peer pressure, create a big challenge, embed student interests, stair-step the activity or work with friends.

## Plan Working Memory Boosters



Neuroplasticity is Remapping the Brain;  
Here are the Rules for Skill-Building

1. Students absolutely must b\_\_\_\_-i\_\_ to it.
2. Skill must be coher\_\_\_\_\_ to the student.
3. Use increasing chal\_\_\_\_\_ and comp\_\_\_\_\_.
4. Students need a fast initial learning cu\_\_\_\_\_.
5. Their brains need error-c\_\_\_\_\_.
6. Students need \_\_\_\_ min./day, 3-5X a wk., 8-12 wks.
7. Once they get it right, they still need pr\_\_\_\_\_.
8. Skill-building can be strengthened in which subject areas? \_\_\_\_\_.

Predictors of Student Success

- a) Attitude
- b) IQ
- c) Effort
- d) Vocabulary
- e) Working Memory
- f) Prior Year's Grades
- g) Class Behaviors
- h) SES of Parents
- i) Motivation

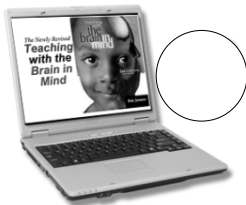


"I have spent over a decade leading several major projects to understand the link between brain function and education.

\_\_\_\_\_ is the #1 predictor of learning success."

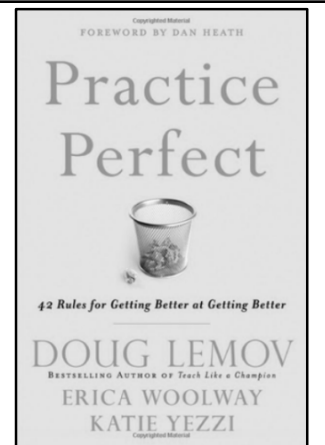
Dr. Tracy Alloway,  
*Journal of Experimental Child Psychology, 2012*

Where Can You Get More Tools to Build Your Student's Working Memory?



[JensenLearning.com/workingmemory](http://JensenLearning.com/workingmemory)

If you don't practice, you'll never get better. *Kids only achieve to the level and at the speed their teacher gets better.* Practice is the "ticket" for you to help more kids graduate. Are you game?



Summary Thoughts on Working Memory

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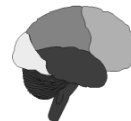
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Review Time...

*How the brain's response systems work*

1. All behaviors are de\_\_\_\_\_ on the st\_\_\_\_\_ that one is in.
2. The path to engagement is through re\_\_\_\_\_ and man\_\_\_\_\_ states.
3. The longer anyone is in any state, the more s\_\_\_\_\_ that state becomes.
4. Your own s\_\_\_\_\_ is as important as the student's state.

### **How to Boost Student Responses Strategies - 1**

- Answer a m\_\_\_\_\_ choice
- Break it into smaller ch\_\_\_\_\_ for students to learn and present to peers
- Ask them to work together to fill in the bl\_\_\_\_\_

### **How to Boost Student Responses Strategies 2**

- Ask students to n\_\_\_\_\_r off in a group and take turns answering Qs or commenting on them
- Rephrase or sum\_\_\_\_\_ the content on the screen
- V\_\_\_\_\_ on a choice and defend it

### **How to Boost Student Responses Strategies 3**

- Work with a neighbor or team to critique or analyze a qu\_\_\_\_\_
- With a partner, problem s\_\_\_\_\_ a situation that is posted
- Dr\_\_\_\_\_ the learning out and share it with a neighbor

### **How to Boost Student Responses Strategy 4**

- Never h\_\_\_\_\_ out papers; let students come get them
- Stop leading stretch breaks yourself; allow st\_\_\_\_\_ to lead them
- Stop doing ene\_\_\_\_\_ yourself; allow students to come up with and lead

### **How to Boost Student Responses Strategy 5**

- Use Qs for emotional pun\_\_\_\_\_
- Allow students to pair up, take s\_\_\_\_\_ to defend a position for 30” then have to switch sides and defend the opposite
- Use “turn-tos” to af\_\_\_\_\_ ideas or persons

### **How to Boost Student Responses Strategy 6**

- Students “own” a new vo\_\_\_\_\_ word each week and teach it to others every day.
- Students stop and do a 3 min. wr\_\_\_\_\_ summary and share their ideas.
- Ask students to repeat a key word or phr\_\_\_\_\_ right after you present it
- Hold a classroom hud\_\_\_\_\_

## How to Boost Student Responses Strategy 7

- Students use hands to gesture an idea or process
- You use letter priming for key words so students have to figure them out
- Ask students to make a prediction, then record it or show it by spatial position

## 5 Examples to Activate the Learning

- ✓Teacher prompt, student response
- ✓Better directions
- ✓Using gestures
- ✓Framing the ideas
- ✓Simple energizer ideas

**1 2 3 4 5**  
**L R B R L**

**6 7 8 9 10**  
**B R B L R**

Which Content Could I Use? Pre-assessment, Consolidate or Review?

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## 5 Examples to Activate the Learning

- ✓Teacher prompt, student response
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## 6 Magic Steps



1. “set-up” or “buy-in” framing
2. Time deadline
3. Trigger word
4. Directions 1 at a time
5. Check for readiness
6. Give trigger word

### Exceptions to the 6 Directions Step List

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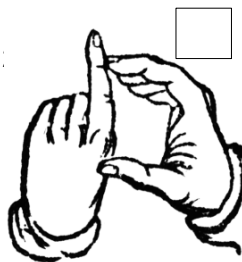
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### 5 Examples to Activate the Learning

- ✓Teacher prompt, student response
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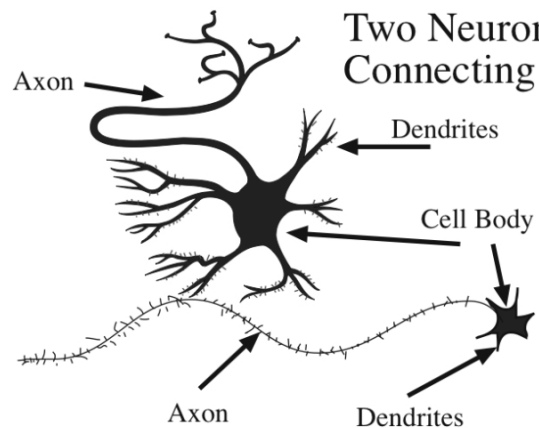
### Why Use Gesturing for Learning?

Gesturing typically forces your brain to choose: 1) directionality, shapes, 2) relevancy, 3) sequencing, and 4) interactions. We may construct new concepts for our knowledge or make an abstraction more concrete. It's a thinking tool.



Golden-Meadow, S., Cook, SW, and Mitchell, ZA (2009)

### Two Neurons Connecting



### Kinesthetic Math Works 3X Better: Use Gestures!



(Cook, SW et al., 2007)

Kids asked to physically gesture their math problems are nearly **three times** more likely than non-gesturers to remember what they'd learned. In the study, **90% of students** who had learned algebraic concepts using gestures remembered them 3 weeks later vs. 33% of speech-only students. And 90% of students who had learned by gesture alone **with NO speech** at all recalled what they'd been taught.

### Brainstorm

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## 5 Examples to Activate the Learning

- ✓Teacher prompt, student response
- ✓Better directions
- ✓Using gestures
- ✓Framing the ideas
- ✓Simple energizer ideas

Framing changes how we hear or view things... it's the bias or "why."



### How to Frame?

- Research • Compelling Questions
- Reasons • Inspirational Stories

"Mom, I have good news and I have bad news. Which do you want first?"



Framing is a tool used to create an intentional bias

1. Having to change teams/groups
2. Must re-do assignment
3. Take a test early
4. Extra homework
5. Have to get up to do an activity

Getting students to do these joyfully may require framing

## 5 Engaging Examples to Activate the Learning

- ✓Teacher prompt, student response
- ✓Better directions
- ✓Using gestures
- ✓Framing the ideas
- ✓Simple energizer ideas

## ***Energizers***

1. **Follow the Leader**  
(content & social)
2. **Cross Laterals**  
(body/mind & content)
3. **Ride my bus/car/train**  
(movement & content)



Are these energizers only for kids under 12?  
**No!**  
All of us love a good time.  
Modify, modify!

Engagement  
is...



Attitude



+

Strategy



*Write down the answers*

What has “sticking power” from today that you *really liked*?

**Best Ideas from the Day**

1.

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2.

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3.

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Implement? When and Where:



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