Strengthening Learning Through Enhanced Growth Mindset

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Ronald Sloan – Ivy Tech Community College of Indiana

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Tempe, AZ
Agenda

• About Growth Mindset
• Impact on Achievement
• Changing Mindsets at Scale
• Get Involved!
Familiarity with Growth Mindset

- Totally new
- Some familiarity
- Actively implementing
What Affects Student Success?

- Intelligence
- Previous experience
- Teacher and school quality
- Structural factors, e.g., poverty, trauma, discrimination
- Students’ mindsets
You Don’t See Unmotivated Babies
Mindsets

Certain beliefs make learning feel…

safe and exciting.
Mindsets

While others make learning feel…

threatening and scary
or maybe just irrelevant
What does critical feedback mean?

Look at all these comments. I guess I’m not very good at this.

Look at all these comments. These are really helpful!
Mindsets Influence Behavior

What's the point of revising this if I'm stupid.

These will help me make my next version even better.
Three Important Learning Mindset

**Growth Mindset**: Do students believe their abilities can be developed?

**Belonging**: Do students believe they belong in school and trust that others value and respect them?

**Purpose/Relevance**: Do students feel like their schoolwork is meaningful?
Professor Carol Dweck
Mindsets About Intelligence

**Fixed Mindset**
- Intelligence is a fixed trait
- You can’t change it

**Growth Mindset**
- You can grow your intelligence through effort, practice, and good strategies
Mindsets Shape Goals

**Fixed Mindset Goal**
Look Smart at All Cost!

“The main thing I want when I do my school work is to show how good I am at it.”

**Growth Mindset Goal**
To Learn at All Cost!

“It’s much more important for me to learn things in my classes than it is to get the best grades.”
## Emotions and Engagement

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<td>Helpless Proof of not “having what it takes”</td>
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Reaction to Failure

Helpless
“I would spend less time on this subject from now on.”
“I would try not to take this subject ever again.”
“I would try to cheat on the next test.”

Resilient
“I would work harder in this class from now on.”
“I would spend more time studying for the tests.”
Mindsets Predict Achievement

Evidence From A Nationwide Sample In Chile

- Chilean National Achievement Test
- 10th grade test incorporated Growth Mindset Assessment
- \( N = 168,533 \)

Susana Claro
Dave Paunesku

Claro, Paunesku, & Dweck (2016)
Fixed Mindset and Bottom Scores

Fixed Mindset students were 4x more likely to score in the bottom fifth!

Claro, Paunesku, & Dweck (2016)
Growth Mindset and Top Scores

Growth Mindset students were 3x more likely to score in the top fifth!

Claro, Paunesku, & Dweck (2016)
Mindsets and Family Income

Claro, Paunesku, & Dweck (2016)
Mindsets Can Change!
Ivy Tech CC Collaboration

Background:

– Faculty lament: “Our students lack motivation”
– Search for answers led to Yeager and Walton
– Conversation with Yeager led to PERTS

Implementation:

– PERTS sent instructions for administering intervention
– Faculty followed script—students awarded 10 points
– Student data sent to PERTS after semester
– Intervention results presented at statewide conference
– Interventions expanded throughout the state
Ivy Tech CC Collaboration

Study Design:
- 966 students, [84% White, 7% Black, 2% Latino, 5% other]
- 5 Ivy Tech colleges
- Randomized controlled trial
- Track students academic outcomes for 2 years

Intervention:
- Two 45-minute online sessions, 2-4 weeks apart
- Taught about the brain and neural plasticity
- Discuss implications for effort, help seeking, and intelligence
Intelligence Is About Connections

The outside layer of the brain, which is called the cortex, is made up of billions of nerve cells called neurons. These cells have branches connecting them to other cells in a complex network. Communication between these cells is what allows us to think and solve problems.

When you learn new things, the connections between these nerve cells actually multiply and get stronger. The more you challenge your mind to learn, the more your brain cells connect to each other and the stronger those connections get.

Therefore, even things that once seemed hard or impossible, like doing calculus or becoming a good writer, become easier. The result is a stronger, smarter brain.
Intelligence Is About Connections

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Impossible, like doing calculus or becoming a good writer, become easier. The result is a stronger, smarter brain.
Student #512

I used to get so down seeing other people who were better at school than I was. I thought they were just born smarter than me. But in talking to them, I've realized just how much work they actually put in, and really I can do the same thing. It's not about being smarter than other students, it's about being smarter than I was yesterday. Maybe I'm not good at some subjects yet, but I know what I need to do to get better. And when something's really hard, I always remind myself that I'm just not good at it yet.
Help Us Explain This to Other Students!

Some students don’t realize the brain can grow smarter with practice and the use of better strategies. When something is hard, they feel dumb and stop trying. Students who understand that they can grow their intelligence act differently when something is hard—they try harder and look for new strategies. Over time, students who understand that they can grow their intelligence spend more time studying the right way, and they do better in school and become smarter.

Sadly, there are still a lot of students who don’t understand how they can grow their intelligence or that it’s even possible. We’d like your help to explain to these students that you can grow your intelligence with practice and better strategies. We will share your responses with future students who complete this survey. We know this understanding will help these students do better.
Leveraging Persuasion Research

Clear Analogy

– The brain is like a muscle!
Leveraging Persuasion Research

Clear Analogy
  – The brain is like a muscle!

Source Credibility
  – Neuroscience evidence for mechanism
  – Peer endorsement of positive norm
Leveraging Persuasion Research

Clear Analogy
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Self-authoring
- Honorific – “we need your help explaining these ideas”
- Writing activity to internalize the message
- Mental rehearsal
Measuring Success

Student is successful if they…

• Remain enrolled
• Earned an associate degree
• OR transferred to 4-year college
Results

Progress: Number of credits earned during the follow-up period

- **Condition**
  - Control
  - Treatment

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<thead>
<tr>
<th>Time Period</th>
<th>Number of Credits</th>
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<tr>
<td>Fall after students completed the program</td>
<td>0</td>
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<tr>
<td>Spring of Academic Year 1</td>
<td>5</td>
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<tr>
<td>Summer of Academic Year 1</td>
<td>10</td>
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<tr>
<td>Fall of Academic Year 2</td>
<td>15</td>
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<tr>
<td>Spring of Academic Year 2</td>
<td>20</td>
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<tr>
<td>Summer of Academic Year 2</td>
<td>25</td>
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<tr>
<td>Fall of Academic Year 3</td>
<td>25</td>
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Results

Completion: Percent of students who earned an associate's degree or transferred after two years

- Control: 15%
- Treatment: 20%
Recursive processes

Growth Mindset → Increase Effort, Strategies, & Support → Higher Achievement

Fixed Mindset → Reduce Effort & Withdraw → Lower Achievement

Challenge or Failure → Growth Mindset

Recursive processes
“Intelligence is not just something you are born with. Your brain is a muscle and if you work it correctly and challenge it… it will become stronger just like any other muscle. Working out your brain and making it stronger and smarter is not easy. You must use effective studying tips to do this. If you need help you can ask a teacher a tutor or a fellow student for help.”
What’s next?

This program is ready to go!!
Growth Mindset for College Students

A free, evidence-based program designed to increase students' engagement, motivation, and ultimately success by laying the foundation for a growth mindset

0 / 50

SPOTS FILLED FOR FALL 2017

GET STARTED

Already registered? Sign in
Sign up at perts.net

**Easy to Implement.**

- Opens for participation from August 1st through October 15th 2017.
- Students participate as part of new student orientation or a first year experience course.
- Takes colleges ~2 weeks to finalize logistics internally, and less than 60 minutes to register.
How It Works

1. Learn & Discuss
Download the Program Information Packet to learn how participation works.

2. Sign-up
Create a user account, submit a letter of agreement, and prepare to participate using our online platform.

3. Participate
Students complete a 30-min web module during new student orientation or a first year experience class.

4. Track Impact
See how many students completed the program, and receive a report about the program's impact at your school.
Everything about mindset.
The Mindset Kit is a free set of online lessons and practices designed to help you teach and foster adaptive beliefs about learning.

GROWTH MINDSET FOR EDUCATORS

About Growth Mindset
Learn about what a growth mindset is and why it's important.

Teaching a Growth Mindset
Learn how to talk to students about the brain, and download a growth mindset lesson plan.

Praise the Process, Not the Person
Learn about the kind of praise that promotes a growth mindset, and see it in action.

Popular Resources
Try these favorite resources from our community.

Handout – How To Be a Great Mentor
This handout is a supplement to the Mentor Toolkit and reviews some of the core elements of being the type of mentor that can best deliver messages around mindsets.

Seven Common Growth Mindset Scenarios and Responses
This handout provides seven common scenarios that mentors might encounter when supporting a student around
ACTIVITY!

Growth Mindset Scenarios Worksheet (College)