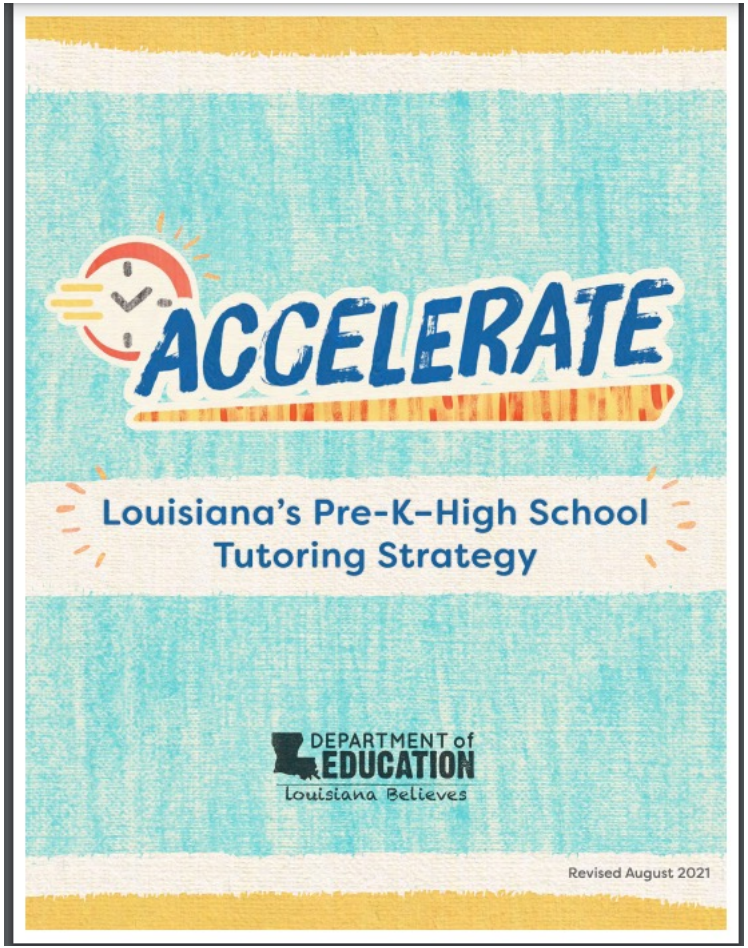
LDOE: Acceleration in Mathematics

The Role of Mindset in Acceleration

Asynchronous Professional Learning Series

Accelerate Initiative: Vision

All students can achieve high expectations regardless of their background, family income, or zip code.



Learning Outcomes

Through today's asynchronous learning, participants will:

- Define malleable intelligence and brain growth.
- Determine what ideas are known to be most critical to shaping student learning and academic success.
- Engage in these ideas in order to promote student success.

Community Agreements

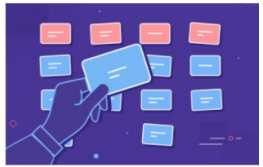
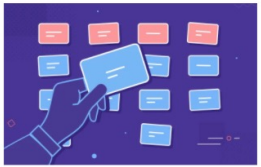
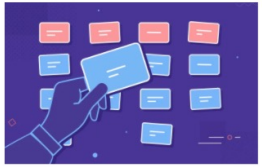
Come as you are

Learning is iterative

Embrace the pause

Open Card Sort: Jamboard

Prioritize and focus on skills that are connected to new on-grade

This is an open card sort.

It is slightly different than most card sorts in that there are no category headers.

Your job is to take the 8 cards on the next page and sort them into two groups that you perceive to be logical.

Then you will name the two groups using the sticky notes (4th down on the menu to the left).

Please return to the recording when you have finished, but leave this open for further reference.

Students need an opportunity to master all unfinished learning prior to accessing on-grade level content.

Emphasize lift over loss to maintain forward momentum.

Unfinished learning is connected to on-grade level core content to promote motivation and retention.

Students are given time to practice skills using worksheets or adaptive computer programs to meet them where they are at so that they can "catch up".

https://jamboard.google.com/d/1fHZ-mJphS-Dofq2KxYtZA2hy70PmctYYQ38obRQb8qQ/copy

https://tinyurl.com/LDOEMindsetCS

	Acceleration	Remediation
Basic skills	Prioritize and focus on skills that are connected to new on-grade level content and will be applied immediately.	Students need an opportunity to master all unfinished learning prior to accessing on-grade level content.
Prior knowledge	Key prior knowledge is taught just in time to allow students to move forward with grade-level content while leveraging these opportunities to address unfinished learning.	Students should be provided time at the start of the school year or the start of a unit to revisit unfinished learning from previous years.
Relevance	Unfinished learning is connected to on-grade level core content to promote motivation and retention.	Groups of students with like unfinished learning should be identified and pulled into small groups to reteach concepts using prior grade-level materials.
Pacing and direction	Emphasize lift over loss to maintain forward momentum.	Students are given time to practice skills using worksheets or adaptive computer programs to meet them where they are at so that they can “catch up”.

Mindset

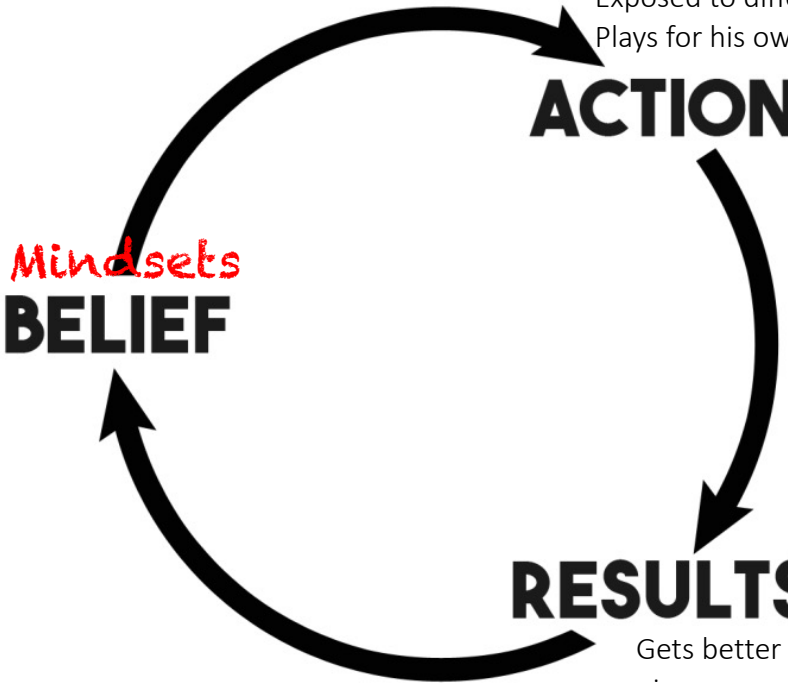
Fixed or Malleable

What is Your Mindset?

Mindset Loop

I improved quite a bit. Maybe I am ready for another instrument.

I can learn to play the piano.



Takes lessons
Practices
Makes mistakes
Plays in front of others
Gets feedback
Exposed to different types of music
Plays for his own enjoyment

Gets better at playing the piano.

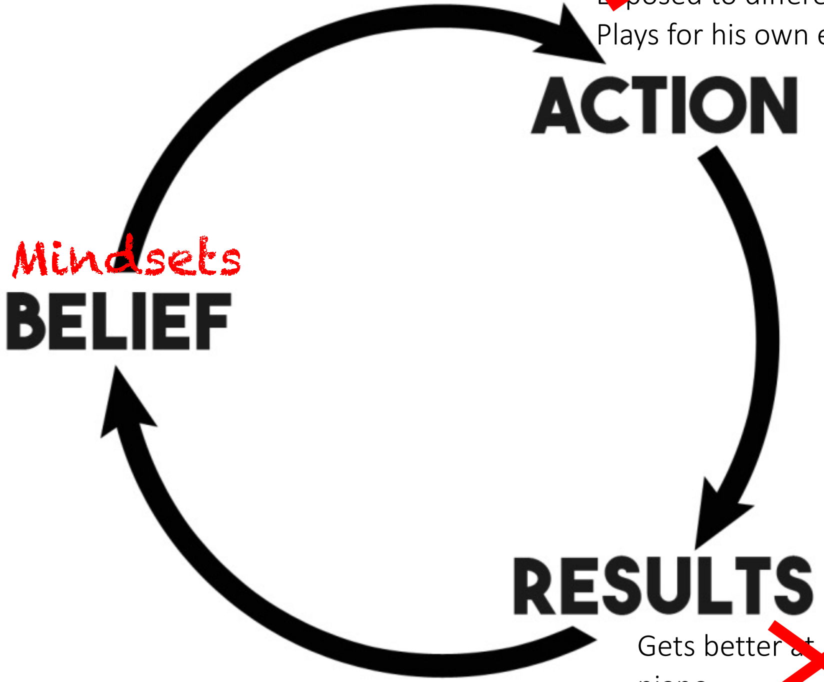
Mindset Loop

I can never learn to play the piano. I have no musical talent.

See? I told you that I just had no musical talent. It is no use!

Stops even listening to bands with keyboards.

Takes lessons
Practices
Makes mistakes
Plays in front of others
Gets feedback
Exposed to different types of music
Plays for his own enjoyment



Gets better at playing the piano.

Is no better at the piano.

A Student's View of Intelligence

When a student believes intelligence is fixed, they tend to:

- Avoid challenges and seek easy successes, passing up valuable learning opportunities
- Desire to look smart at all costs
- Worry about failure and question your ability.

When a student believes intelligence is malleable, they tend to:

- Pursue and enjoy challenges
- Care less about "looking smart"
- Engage in self monitoring and self-instruction.

Mindset: The New Psychology of Success; Carol Dweck

Let's Play a Game!

Praising effort is a growth mindset attribute. But be careful!!

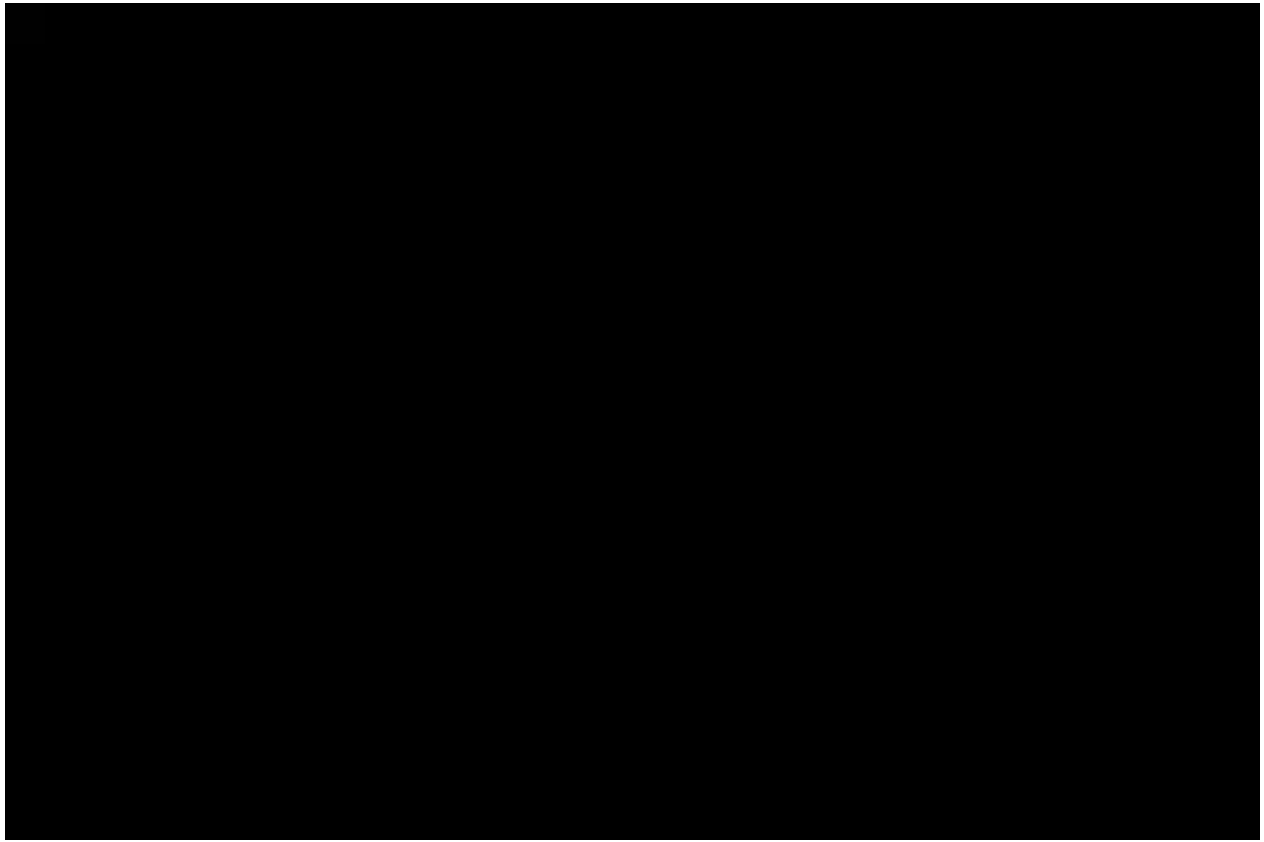
Just "trying harder" when you aren't learning something does not promote a growth mindset.

Instead, focus on the effort in the service of learning!

The Brain

What happens in a student's brain when working on a challenging task?

Intelligence and the Brain

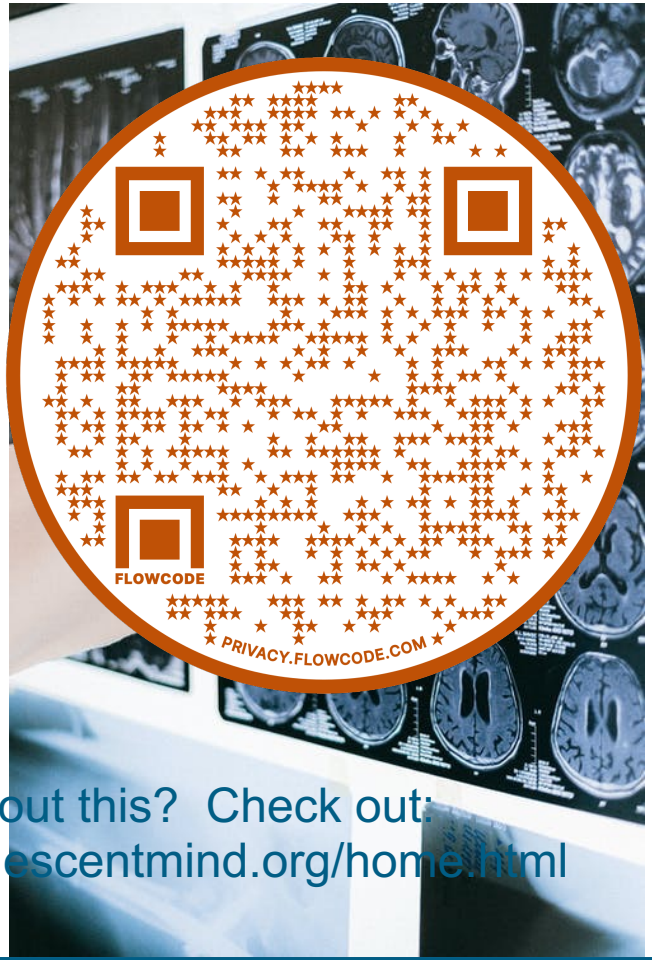


BBC documentary,
The Human Body

Pause and Reflect

How will you demystify intelligence with your students? With other colleagues?

- Consider showing the video and having a discussion about what they learned.
- Model flexibility when approaching something frustrating.
- Introduce some new phrases such as: You are becoming more confident at… or I enjoy the new way you approached that task.

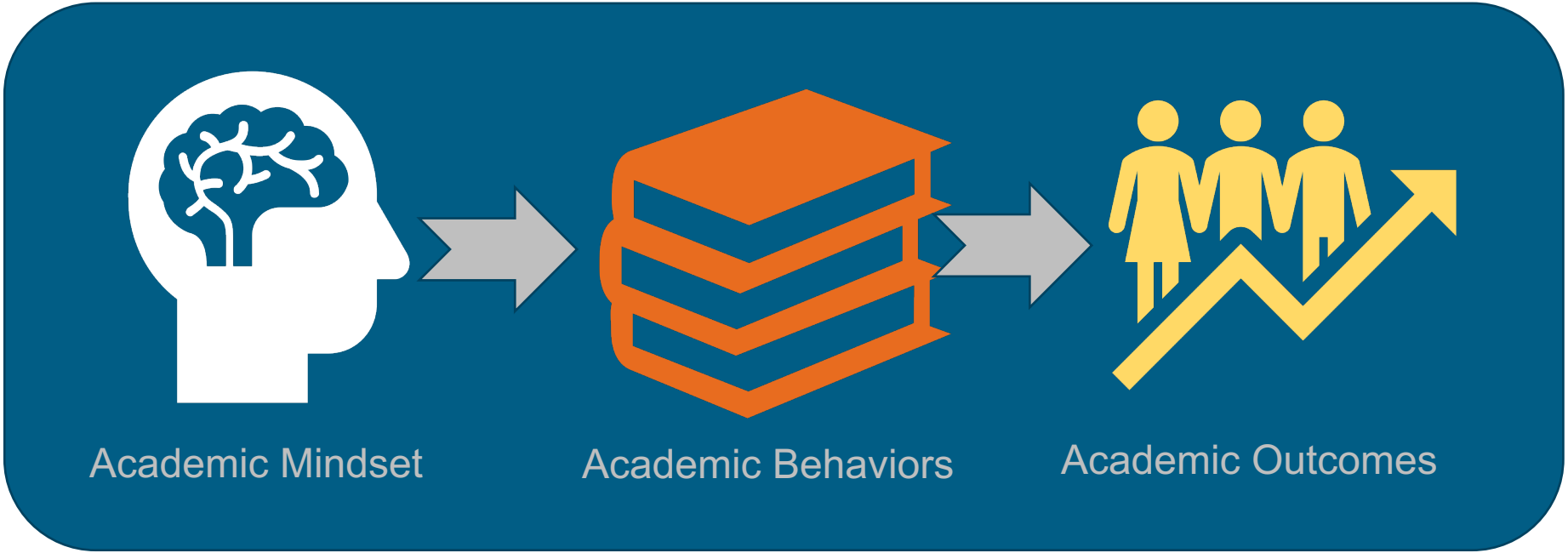


bout this? Check out:
olescentmind.org/home.html

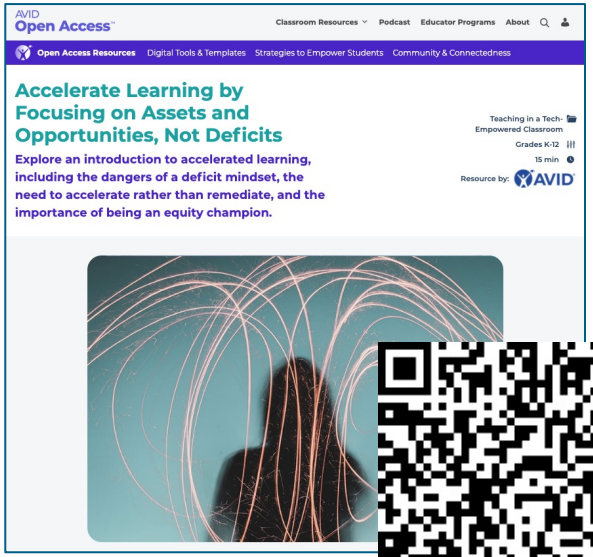
Mindset and Acceleration

Building the culture

Mindset During Acceleration



Assets and Opportunities, Not Deficits



https://avidopenaccess.org/resource/accelerate-learning-by-focusing-on-assets-and-opportunities-not-deficits/

https://tinyurl.com/AvidOpenAccess

Connect — Extend — Challenge

As you read the article, consider:

- How are the ideas and information presented **connected** with what you already knew?
- What new ideas did you get that **extended** or broadened your thinking in new directions?
- What **challenges** or puzzles have come up in your mind from the ideas and information presented?

As you read, individually record personal connections, extensions, and challenges.

Article Reflections

Connections

One thing that struck me here is that students did learn many things during the pandemic. "Learning Loss" has been discussed widely, but students did learn many things through hardships and in some cases learned things about family dynamics and the support systems that are in place to nurture their emotional and academic success or lack thereof.

Article Reflections

Extensions

We have to consider the RTI frameworks that are so prevalent in education. How do we shift away from this and how long will it take? What will be the pushback? I remember older teachers saying that we change the name of things and call it something new when new initiatives are presented. How do we change mindsets and foster the thought that our practices were meant to affect students positively academically, but what really happened was that we consistently sent a message to children that their current capacity and capabilities weren't enough to stay on pace with the norm and in turn they were somehow less than what we expected?

Article Reflections

Challenges

My concern is ARE TEACHERS REALLY PLANNING? This approach to learning should have ALWAYS been the route, actually. We never get a class of students who are 100% on-level, especially teaching in schools with minority populations and low SES status. Effective planning across the board (the school, the district, etc.) will be key to providing all students an enriching learning environment that addresses the needs spoken about in the article.

Building a Malleable Classroom Culture

Above all else…

Teachers AND students MUST believe that everyone can learn math at high levels.

Belong

- Maslow's hierarchy of needs
- Connected to peers, class and school

Belief

- I can succeed at this
- Self-efficacy

Value

- Make meaning of experience
- Connections

Ways to Praise

You could say:

- I like the way you tried all kinds of strategies until you found one that worked for you.
- It was a long, hard assignment but you stuck with it and got it done. That is great!
- I liked the effort you put in. Let's work together some more and figure out what you don't understand.

Steer clear of:

- Wow! You did great on that math problem – you are a whiz at math!!
- See. I told you that it would be easy. You are so smart!
- Nice job! You got an A without even trying.
- Some people are just good at math. Don't worry about it. See if your parents have the math gene.

Summing It Up

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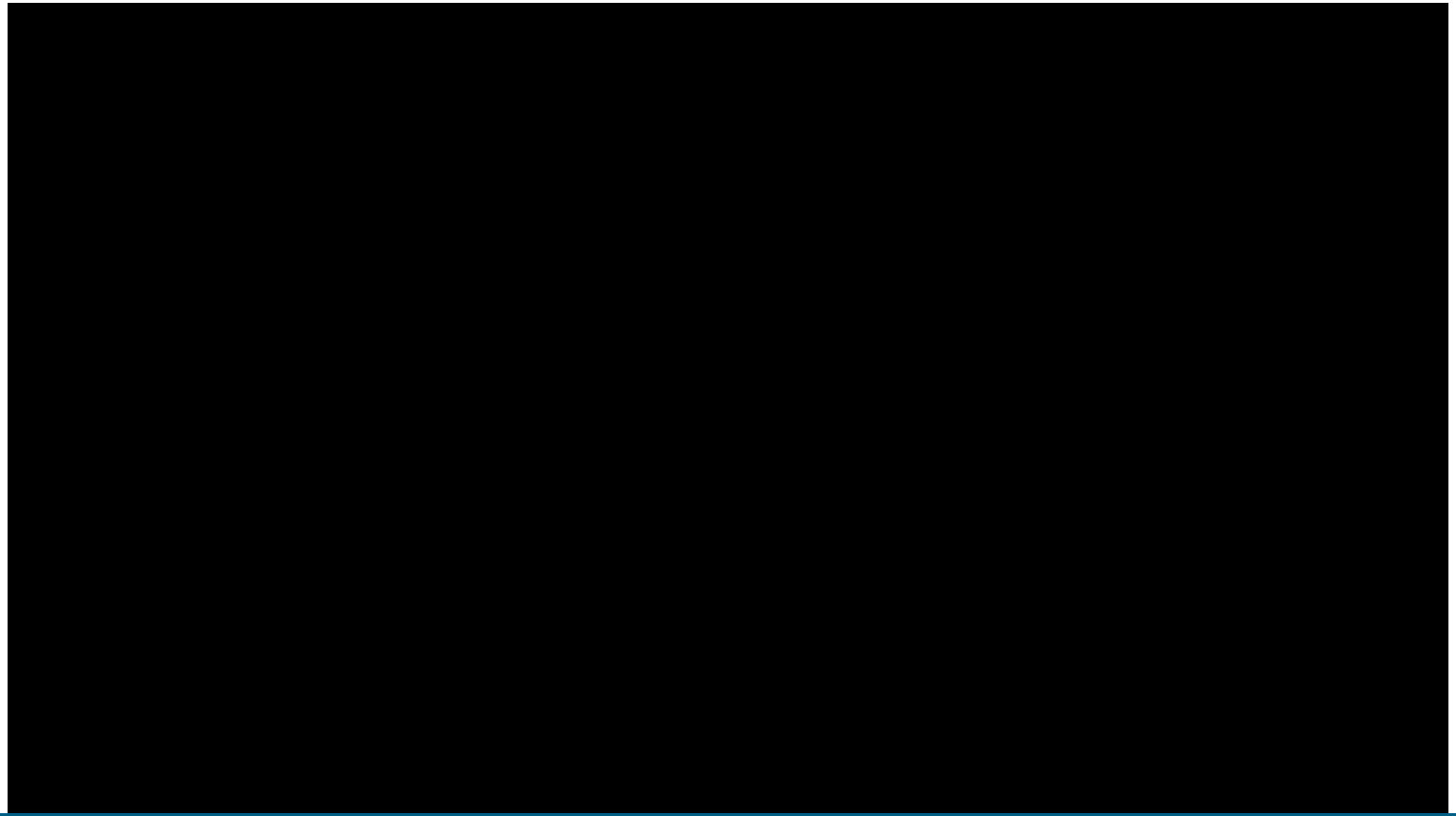
The Mindset – Motivational Video



Additional Support/Resources

Louisiana Believes

- Accelerate https://www.louisianabelieves.com/academics/accelerate
- Accelerate Math https://www.louisianabelieves.com/docs/default-source/accelerate/accelerate-math.pdf?sfvrsn=433c6618_14
- K-12 Math Planning Resources https://www.louisianabelieves.com/resources/library/k-12-math-year-long-planning

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Slide 8: Singer: by Oleg Magni from Pexels

Baseball player: Photo by pexels-pixabay-163209

Yoga pose: Photo by Alexy Almond from Pexels

Surfing: Photo by Jess Loiterton from Pexels

Slide 15: Brain scans: Photo by **Anna Shvets** from **Pexels**

References

Slide 5, 6, 23, 24: Rollins, S. P. (2014). *Learning in the fast lane: 8 ways to put all students on the road to academic success*. ASCD.

Slide 11: Dweck, C. (2016). *Mindset the New Psychology of Success*. Ballantine Books.

Slide 14: Clipped from: BBC documentary, The Human Body, as shared on the Dana Center/Agile Mind's website: www.learningandtheadolescentmind.org

Slide 17: Farrington, C (2013). *Academic Mindsets as a Critical Component of Deeper Learning*. University of Chicago.

Slide 18: *Accelerate Learning by Focusing on Assets and Opportunities, not Deficits*. https://avidopenaccess.org/resource/accelerate-learning-by-focusing-on-assets-and-opportunities-not-deficits/

Slide 27: From the HESMotivation YouTube Channel: youtube.com/channel/UC3gWv-0A3qEeFBJESlsJa0g

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