

Believe You CAN!: A lesson on Growth Mindset

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Creator: Maria Stavreva, Getty Images

“Believe you can and you’re halfway there” is a motivational quote by the 26th United States President, Theodore Roosevelt. This quote implies that our MINDSET, or the way we think about ourselves and our abilities, has a huge impact on how we feel and what we ACHIEVE, especially when we are working on developing a new skill. Today we are going to talk about GROWTH versus fixed mindset. Carol Dweck, PhD, a psychologist, and professor at Stanford University, developed the theories of these two mindsets. She says in a growth mindset, students understand that their talents and abilities can develop through effort, good teaching, and PERSISTENCE. Students with a fixed mindset believe their basic abilities, intelligence, and talents are just fixed traits that are INNATE (born with) and cannot be changed. Therefore, there is not a focus on the effort or practice. (*It should be noted that here “intelligence” is used to represent multiple types of intelligence.)

Spell ABILITIES Spell FIXED Spell UNIVERSITY
Today, we are talking about two different what? MINDSETS

Question Type Key

KNOWN – SEMI-OPEN – PRIOR KNOWLEDGE – MATH – OPEN – VAKT

In a fixed mindset, students believe their basic abilities, intelligence, and talents are traits that cannot be what? CHANGED

Students with a growth mindset understand their talents and abilities can develop through effort, good teaching, and what? PERSISTENCE

Name one of the mindsets we are talking about today? GROWTH, FIXED

We mentioned that Dr. Carol Dweck had 2 job titles. Name one.

PSYCHOLOGIST, PROFESSOR

We used a quote by President Roosevelt; Name another President.

Read this quote by Wayne Dyer: "The only limits we have are the limits we believe". Give one limit you believe about yourself and how you overcame it.

Let's dive a little deeper into our thoughts. In 2005, the National Science Foundation published an article regarding research about human thoughts. They determined that the average person has about 12,000-60,000 thoughts per day. Of those, 80% are negative and 95% are the same REPETITIVE thoughts as the day before. Dr. Daniel Amen, a clinical NEUROSCIENTIST, came up with the acronym "ANTs" which stands for "Automatic Negative Thoughts". He says he came home one night after a day at the office to a kitchen INFESTED with thousands of ants and related these to his patients' brains being infested by negative thoughts. If we often tell ourselves that we can't do something, or repeat reasons why we can't, then we won't be able to do that thing. This negative SELF-TALK is part of having a fixed mindset and can hold us back from accomplishing what we want. Instead try to squash your "ANTs" and replace them with encouraging thoughts to foster a growth mindset.

Spell DETERMINED Spell THOUGHTS Spell ACCOMPLISHING

What is the name of the clinical neuroscientist who came up with the ANT acronym? DR DANIEL AMEN

What does the acronym ANT stand for? AUTOMATIC NEGATIVE THOUGHTS

Name one of the 2 ways to foster a growth mindset mentioned in this paragraph. SQUASH YOUR ANTS, ENCOURAGING THOUGHTS

Name another insect other than an ant.

What year did the National Science Foundation publish a research article on human thoughts? 2005

If the research states that 80% of human thoughts are negative, how many are positive? $100-80=20\%$

What is your biggest ANT and what could you replace it with?

Now, sometimes “ANTs” come into our minds because we make MISTAKES. In some cases, we may even hesitate to try something new for fear of failing or making a mistake. With a growth mindset, we can change the way we view mistakes. We can look at our mistakes as proof that we are trying and learning. Mistakes, setbacks, failures, and confusion are all part of the LEARNING process. Albert Einstein is famously quoted as having said, “A person who never made a mistake never tried anything new.” While Einstein is not remembered for his mathematical errors, it is important to note them as they did not stop him from experimenting and making great contributions to his fields of mathematics and physics. In his book LIMITLESS, author Jim Kwik says “There is no such thing as failure. Only failure to learn.” He advises us to learn what we can from our mistakes, avoid comparing ourselves to others, and don’t let mistakes define you as a person.

Spell HESITATE Spell EXPERIMENTING Spell PHYSICS

With a growth mindset we can change the way we view what? MISTAKES

According to Jim Kwik, “There is no such things as failure. Only failure to what? LEARN

Kwik also advises to not let mistakes _____ you. DEFINE

Name one thing listed that are part of the learning process. MISTAKES, SETBACKS, FAILURES, CONFUSION

Name one field Albert Einstein contributed to. MATHEMATICS, PHYSICS

What is a field that you would like to study and learn about?

What is a new hobby, activity, or skill that you would like to try to learn?

Another factor of a growth mindset is the focus on the process, or JOURNEY, of learning something new, instead of having sole focus on the actual OUTCOME. In addition, praising the effort over the PRODUCT. Dweck’s research found that it is more beneficial for students to be praised for their effort, strategies, persistence, and resilience. When we embrace

challenges of trying to learn something new and working hard along the way, that PERSEVERANCE should be applauded. Growth mindset is being BRAVE and putting our best effort forward. In her book, GRIT, Angela Duckworth PhD, discusses how having perseverance in something we are passionate about learning and doing develops “grit”. She says grit includes interest in learning, having capacity to practice, finding the purpose, and possessing hope. When we focus on the process, not only do we learn what we aim to accomplish, but we ultimately also learn a lot about ourselves. Researchers have also shown that in growth-minded people, the brain is very active when they were given constructive feedback. Contrary, people with fixed mindset had an active brain when they were given information on the performance.

Spell HOPE Spell APPLAUDED Spell PASSIONATE

With growth mindset, praise the _____, over the actual outcome. EFFORT

Who wrote the book GRIT? ANGELA DUCKWORTH PHD

Researchers have shown that when given constructive feedback, the brain is very _____. ACTIVE

According to Dweck’s research, name one of the things students should be praised for. EFFORT, STRATEGIES, PERSISTENCE, RESILIENCE

Name one of the two things Dr. Duckworth found that develop grit.

PERSEVERANCE, PASSION

What is one thing you passionately practice?

VAKT: Watch this 3 minute video on “Famous Failures” that highlights their growth mindset:

<https://youtu.be/zLYECljmnQs>

We can’t talk about growth mindset without discussing the science of the brain! NEUROPLASTICTY, or brain plasticity, is defined as the ability of NEURAL networks in the brain to change through growth and REORGANIZATION. Every time we learn and practice something new, our brain makes new SYNAPTIC connections. Our brain is MALLEABLE, or able to adapt and change. Think of trying to walk across a large field of super tall grass to get to the other side. At first when you attempt to cross,

you will have to work hard through the grass. Slowly, overtime you are making a clearer path to the other side. When we are persistent and CONSISTENT with our practice of what we are trying to learn, our brains also create an easier pathway for signals to travel to the various neurons. With challenging ourselves to learn and practice new things, our brains grow by forming and strengthening new connections.

Spell CONNECTIONS Spell PERSISTENT Spell PRACTICE

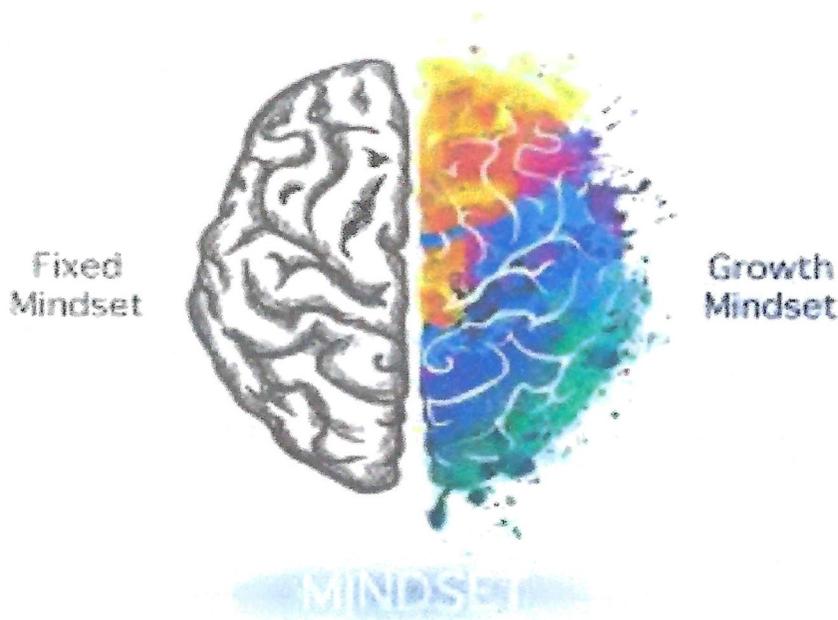
What is another name for brain plasticity? NEUROPLASTICITY

Brains are malleable, meaning they can adapt and what? CHANGE

To create an easier pathway for signals to travel to various neurons we have to be 2 things with our practice. Name one: PERSISTENT, CONSISTENT.

Read this quote by Jim Walkers: "A river cuts through rock not because if its power but because of its persistence." What does this quote mean to you?

VAKT: Look at the picture below and point to the half of the brain that depicts a growth mindset.



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Question Type Key

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Researchers also suggest that a person with a fixed mindset can overtime develop a growth mindset. While we have discussed a few ways to have a growth mindset, let's continue to learn a few more! Practice positive self-talk and use the power of the word *yet*. For example, a fixed mindset THINKER may say "I'm not a 'math person'. I'd like to be, but it's just not a strength". Instead, you can say "I'm not a math person *yet*. I will keep working at it." When you're up against an OBSTACLE and learning something that is hard, tell yourself "I can do hard things." It even sometimes helps to IMAGINE what you would tell your best friend if they were struggling with learning something new. Next, ask for help! Dr. Duckworth in her book Grit, also suggests asking for a helping hand to help yourself hold onto hope. Additionally, using the CONSTRUCTIVE feedback from a mentor, teacher, or coach can help you improve and keep the motivation to keep going. Remember to get out of your comfort zone, don't be afraid of failure, and be patient. In the words of Saint Francis de Sales, "Have patience with all things. But first of all with yourself."

Spell POSITIVE Spell FEEDBACK Spell MOTIVATION

To practice positive self-talk, use the power of the word _____. YET
Who should you imagine you're talking to when practicing positive self-talk?
BEST FRIEND

Dr. Duckworth suggests asking for a helping hand to help yourself hold on to what? _____ HOPE

Name one of the people mentioned who can give us constructive feedback.
MENTOR, TEACHER, COACH

Name one of two things mentioned that constructive feedback can do.
HELP YOU IMPROVE, KEEP MOTIVATION

What is another word for "constructive" in the phrase "constructive feedback"? HELPFUL, USEFUL

VAKT: Look at the picture below and point to if it is demonstrating a growth or fixed mindset.



GROWTH OR FIXED

Creative Writing: Choose one or more from below.

Read this quote by NBA star Michael Jordan: "I've missed more than 9000 shots in my career. I've lost almost 300 games. 26 times I've been trusted to take the game winning shot and missed. I've failed over and over and over again in my life and that is why I succeed."

What mindset does Michael Jordan possess? What can we learn from this quote?

Tell me about one thing you are actively working on learning and how you can apply a growth mindset to it.

How can approaching learning S2C with a growth mindset help us?

Resources:

<https://www.mindsethealth.com/matter/growth-vs-fixed-mindset#:~:text=A%20growth%20mindset%20means%20that,never%20be%20good%20at%20it.>

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Jim Kwik, (2002). Limitless. New York: Hay House.
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Big Life Journal for Kids (2019). Canada: Eidens, Inc.