

What is a Growth Mindset?

How to empower students to love learning and help them believe they can achieve



3P Learning



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Foreword

Too many children – and adults for that matter – believe they *don't need to* learn, or that *they can't* learn.

Professor Carol Dweck from Stanford University contends this is due to individuals developing a **Fixed Mindset** with regard to their capabilities, character traits or potential. She argues that not only learning is stunted, but many social issues can arise by having a **Fixed Mindset**.

She says, in order for individuals to flourish, they need a **Growth Mindset** – a disposition that embraces challenge, seeks out feedback and values effort as the pathway to mastery.

In my experience, I've found the work of Dweck to resonate with many parents, educators and business leaders. Perhaps they themselves believe they're, "not a maths person" or they, "don't have a creative bone in their body" and hold a Fixed Mindset with regard to their potential to address these shortcomings. The majority of adults I speak to can also relate it to their kids.

Since Dweck's book ***Mindset – The New Psychology of Success*** has been published, many in educational circles have started exploring the concepts of Fixed and Growth Mindsets in the belief that a Growth Mindset could be the key to unlocking our students' potential.

Of course, it's not just those who struggle. Some who have succeeded at school or in another domain may also be stuck in a Fixed Mindset. These individuals have been told they are really smart, a natural in a certain subject or talented in a particular domain, yet when they come up against a challenge, as they will invariably do so if they are that good, they begin to doubt themselves. After all, if I'm so good, I shouldn't have to struggle, right?

But if they've been challenged and haven't been able to perform, this can eat away at their very identity. For some this occurs around adolescence; that time of life where **everything** is about forging an identity.

I've argued that, unfortunately, some of what we do in schools may serve to reinforce the Fixed Mindset. Grading, streaming, **Gifted & Talented** classes, even goal setting – if not handled properly – can have negative effects not only on the kids who don't do well in school, but also those who for all intents and purposes appear to be successful.

In schools, a Fixed Mindset in students can lead them to believe either that they don't need to learn anymore or that they *can't learn* anymore. Both dangerous mindsets in environments that are all about learning!

I would also argue that some teachers feel like this.

Don't believe me? Think about your colleagues differing approaches to implementing new strategies in the classroom, the uptake of technology in teaching, their attitudes of professional development days etc.

Think about their mindsets with regard to the classes they teach? The comments they make.

However, according to Dweck, those in a Growth Mindset understand regardless of their abilities and talents – whether they be superstars or struggling – they have the potential to improve, do things differently and see the benefit of sharing their experiences and time.

But more than that, a Growth Mindset is essential if we are to see the real benefits of any of the more obvious interventions and strategies. For example, a peer coaching approach with staff – one of the most powerful strategies for change and improvement – only has impact if those involved are open to challenging and improving themselves and their craft.

In a Growth Mindset, individuals are concerned in improving, for the sake of improving. Not for the sake of recognition. They take on feedback in a constructive fashion as opposed to seeing it as criticism. Growth Mindsets enable us to recognise and celebrate the successes of others rather than feel threatened by them, and importantly, those in a Growth Mindset actively seek out challenges rather than expend their energy trying to avoid them.

However, having said all this, we must understand that there are many nuances with regard to Mindset. Dweck herself states that nothing in psychology is "absolute," so we need to be judicious in the way we approach mindsets in school, and educators need to embrace the research that is already published, as well as that currently being undertaken. For example, it should not be seen as "bad" to hold a fixed mindset, and telling kids to "never give up" may well serve as poor advice. "Don't give up too soon" might be better.

Perhaps you could take a moment to reflect on your own mindset? What is something that you would love to do, but until this point, you have always had a list of reasons as to why you couldn't do it? Assuming it's still feasible to do, learning to play the guitar, writing a book, learning a language, what's stopping you?

Even though you would *love* to do it, have you given up too soon because of your fixed mindset?

Dan Haesler, January 2017 - danhaesler.com

About Dan Haesler

Dan Haesler works with organisations around issues of engagement, wellbeing, mindset & leadership. As well as schools, he has consulted to government education projects, corporate business, The Black Dog Institute and other not-for-profit organisations. Dan is an international keynote speaker and presents alongside the likes of Sir Ken Robinson, Sugata Mitra and His Holiness the Dalai Lama. Dan is passionate about equity in education and engaging our hardest-to-reach kids and communities.



Introduction

6,000 students across 100 British primary schools are taking part in a study exploring the "Growth Mindset", a term created by renowned Stanford University psychologist and expert on mindsets, Carol Dweck. Psychologists from the University of Portsmouth are conducting the study from September 2016 and will examine whether students who are encouraged to build their intelligence through persistence, self-belief and self-improvement strategies achieve more than those who are not. The researchers will also teach Year 5 and Year 6 teachers, taking part in the study, how to teach using growth mindset strategies. Sherria Hoskins, head of psychology at the University of Portsmouth, said "*she hoped this study would demonstrate whether or not growth mindset could improve pupils' outcomes.*"¹ The results of the British study, called Changing Mindsets, won't be available for some time but teachers have welcomed the research on Growth Mindsets as they seek new approaches to teaching, particularly when faced with the curriculum's apparent obsession with testing and meeting targets.

In this white paper, you will learn the psychology behind nurturing a growth mindset, how it differs from a fixed mindset and how using simple, yet effective, strategies, will help you deliver positive learning experiences for your students and help foster a 'can do' approach to learning.

¹ <https://www.tes.com/news/school-news/breaking-news/new-study-puts-growth-mindset-theory-test>



Why mindsets matter

We can all empathise with having to take on a challenge that's outside of our comfort zone. Anxiety and even fear can take over, at least initially, until you realise that the only way to combat those feelings is to tackle the challenge head on. Students deal with challenge on a daily basis. When they begin evaluating their own ability they can be driven by not wanting to fail and become afraid of the very thought, leading to behaviour which impacts on the whole learning process.

Hearing phrases from parents and teachers such as, "You are good at maths!", "You're top of the class for reading!", "You're a natural at sport!", conveys messages that are inextricably linked with a child's sense of self and are all performance related.

When a student focuses on performance goals, rather than learning goals, they might worry about how they will look in front of their peers and teachers if they take on a challenging task. They question whether attempting a difficult task is worth the risk of looking less intelligent or how they might deal with the embarrassment of not being good at something.

Carol Dweck² shares her experience of fearing failure, *"My 6th grade teacher seated us around the room in I.Q. order, and although I did well in that metric it created this fear of falling from grace, of making the mistake of not being as perfect as I needed to be. I wanted to unlock that psychology and maybe bottle it, find out the underlying reasons people are afraid of challenges or crumbling in the face of setbacks, and ultimately help kids."*

Dweck's research suggests that success is not dependent on natural talent but relies on an individual's mindset. A child that believes intelligence can be developed (and isn't an innate, natural ability) is more likely to be motivated, interested in learning and embrace challenges - even when faced with failure and they don't give up trying.



² <https://onedublin.org/2012/06/19/stanford-universitys-carl-dweck-on-the-growth-mindset-and-education/>

³ Dweck, C. (2006). *Mindset: The New Psychology of Success*. New York: Ballantine Press.



Growth Mindset Vs Fixed Mindset

Students with a growth mindset enthusiastically take on the challenges given to them. They believe effort and perseverance are the criteria for achieving success. The learning journey is more important to them than arriving at the correct answer. Feedback is not perceived as a judgement of their ability and is put to good use because they understand that ability can grow. Students with a growth mindset are more likely to be inspired by the success of others.

In contrast, students with a fixed mindset are fearful of challenges, give up easily and avoid them if at all possible. They believe that 'natural ability' plays a big part in whether you are good at something or not and this underpins and dictates their understanding of success. The assumption is if you don't have an innate ability you can't improve and for students who believe this to be true, they achieve less than their full potential. Students with a fixed mindset tend to ignore useful feedback and feel threatened by the success of others.

It's important to point out that these mindsets are two extremes. In reality most of us fall somewhere in between, and whether we exhibit behaviours aligned to more of a growth mindset or a fixed mindset, can depend on the specific challenge or situation.

The ethos behind both mindsets are prevalent in our culture. On one hand, we're told 'you can achieve anything you put your mind to' and on the other we see famous people praised for their 'natural talent'. Rarely are children given an accurate picture of the effort and commitment involved in becoming successful. This distortion of reality can lead to mixed messages about what it takes to achieve.



Fixed Mindset

- Believes intelligence is fixed
- Avoids challenges
- Gives up easily
- Sees effort as fruitless
- Ignores useful feedback
- Feels threatened by the success of others



Growth Mindset

- Believes intelligence can be developed
- Embraces challenges
- Persists in the face of setbacks
- Sees effort as the path to mastery
- Learns from criticism
- Finds lessons and inspiration in the success of others



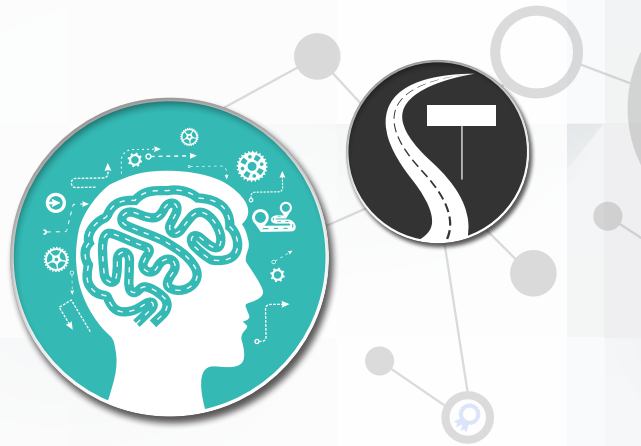


The Journey

Central to Dweck's findings is changing the perception that learning is about the outcome. From the moment children are taught something new, their learning journey begins and if they experience failure along the way, it doesn't mean it's the end of the road. It means they are on a learning curve and they haven't learnt it...**yet**. Their journey is taking twists and turns, maybe even going back on itself but with a concerted effort children **will** experience success.

Dweck⁴ says, *"Just [using] the words "yet" or "not yet," we're finding, give kids greater confidence, give[s] them a path into the future that creates greater persistence. And we can actually change students' mindsets."*

Using the word **"yet"** is a powerful way to diffuse feelings of failure and encourage children to try again.



How the language used to praise students can impact on mindsets

How many times have you heard or used the phrases, *"You're so smart"*, *"Well done, you're good at that"* or *"You're so talented"*? These messages are a product of the self-esteem movement which began in the early 80's. Teachers and parents were told to praise intelligence and ability with the aim of raising self-esteem, encouraging children to learn. More recent research has disproved this theory, even suggesting that praising intelligence or ability does more harm than good. By labelling children clever or talented, educators and parents are creating a perception of the child that they now feel they have to live up to. Looking stupid or struggling with a challenge is the opposite of how they are currently viewed. Children can become obsessed with protecting the way they are perceived by others, making them shy away from difficult tasks because they fear failure, which ultimately hinders the learning process.

Claudia Mueller and Dweck's⁵ research into praise focused on 400 fifth-graders (equivalent to UK Year 6 children) across 6 studies from all over America and students came from varied backgrounds. The studies involved several tasks, including working on a puzzle. The researchers ensured that the puzzle was challenging but also easy enough for all the children to do quite well.



⁴ <http://anamelikian.com/mindset/014-power-yet-growth-mindset-secret/>

⁵ Dweck, C. (1999). Caution – Praise Can Be Dangerous. American Educator. American Federation of Teachers <http://www.aft.org/sites/default/files/periodicals/PraiseSpring99.pdf>



How the language used to praise students can impact on mindsets

The children were divided into groups. A third were praised for their intelligence by focusing on how many correct answers they got. A third were told that they got a very good score, but they were praised for their effort, *“you must have worked really hard.”* The final third were simply praised for their performance, with no comment on why they were successful. When researchers asked the students questions in relation to the tasks (across all 6 studies), they found that the children responded similarly in relation to whether they enjoyed the task, how eager they were to take the problem home and practise, and were equally confident about their future performance.

However, when researchers gave the same children a choice of follow-up tasks to work on, the results showed that the children who were praised for their intelligence chose the task that would keep them looking smart. Most of the children who received praise for their efforts went for the more challenging tasks and children who had not been praised for effort or for intelligence were right in the middle.

What these findings suggest is that when *“we praise children for their intelligence, we are telling them that this is the name of the game: Look smart; don’t risk making mistakes. On the other hand, when we praise children for their effort and hard work that leads to achievement they want to keep engaging in that process. They are not diverted from the task of learning by a concern with how smart they might -or might not- look.”* (Dweck, 1999)

Praise such as *“You did that quickly, well done!”* and *“You picked that up really fast, you’re a natural!”* are used with good intentions. However, using these phrases to praise children doesn’t take into account the value systems we convey when communicating. By suggesting that doing something quickly is a good thing, by default we are also insinuating that taking longer to learn something means you’re not doing well.

Writing about her research, Dweck explains that, *“We also knew that many educators and psychologists thought that praising children for being intelligent was of great benefit. Yet in almost 30 years of research, I had seen over and over that children who had maladaptive achievement patterns were already obsessed with their intelligence—and with proving it to others. The children worried about how smart they looked and feared that failing at some task—even a relatively unimportant one—meant they were dumb. They also worried that having to work hard in order to succeed at a task showed they were dumb. Intelligence seemed to be a label to these kids, a feather in their caps, rather than a tool that, with effort, they could become more skilful in using.”* (Dweck, 1999)





Praise is good – if used wisely

So how do you reward children and spur them on to keep learning without creating fixed mindsets?

Shift the focus of the praise from performance to effort.

"We can rave about their effort, their concentration, the effectiveness of their study strategies, the interesting ideas they came up with, the way they followed through. We can ask them questions that show an intelligent appreciation of their work and what they put into it. We can enthusiastically discuss with them what they learned. This, of course, requires more from us than simply telling them that they are smart, but it is much more appreciative of their work, much more constructive, and it does not carry with it the dangers I've been describing." (Dweck, 1999)

Not praising a child for completing something quickly and faultlessly may not feel like the right thing to do. On the other hand, praising these qualities places a high value on them, which feeds into the psychology behind a fixed mindset. Dweck suggests, *"A better approach would be to apologize for wasting their time with something that was too easy, and move them to something that is more challenging. When students make progress in or master that more challenging work, that's when our admiration—for their efforts—should come through." (Dweck, 1999)*



Teach the science behind mistakes – mistakes grow your brain!

Teaching children not to be afraid of making mistakes and in fact encouraging them to make mistakes, is the key to helping your students become smarter.

Psychologist Jason Moser studied the neural mechanisms in people's brains when they make mistakes⁶. His findings showed that when we make a mistake, our brain fires synapses. What are synapses? A synapse is an electrical signal that moves between the parts of the brain when learning occurs.⁷ (Boaler)





Teach the science behind mistakes – mistakes grow your brain!

The brain responds in two ways to mistakes. An ERN response is an increase in electrical activity when the brain *“experiences conflict between a correct response and an error. Interestingly, this brain activity occurs whether or not the person making the response knows they have made an error.”* (Boaler)

Pe is the second response the brain makes and is *“thought to reflect conscious attention to mistakes. This happens when there is awareness that an error has been made and conscious attention is paid to the error.”* (Boaler)

Surely this only happens when students correct their mistake and solve the problem correctly? **Wrong!** According to Moser’s study, the brain sparks even when we’re not aware of our mistake.

Boaler explains it like this, *“When teachers ask me how this can be possible, I tell them that the best thinking we have on this now is that the brain sparks and grows when we make a mistake, even if we are not aware of it, because it is a time of struggle; the brain is challenged and the challenge results in growth.”*

We can’t underestimate how important recent neurological research on the brain is and what it reveals about learning. As Dweck puts it, *“Every time they [students] push out of their comfort zone to learn something new and difficult, the neurons in their brain can form new, stronger connections and over time they get smarter.”*⁶ (Carol Dweck, Ted Talk)

How can we use this information to help our students?

Teach children the science behind learning and what it actually means to make mistakes. Mistakes are good. The phrase *“you only learn from your mistakes”* has never been more true. Letting children know that their brains are actually working harder and becoming stronger when making mistakes, helps take the fear out of getting it wrong. It also promotes mistakes as part of everyone’s learning process. Provide a way in which to learn from mistakes by using discussion time and praise children for their effort.



⁶ Moser, J. S., Schroder, H. S., Heeter, C., Moran, T. P., & Lee, Y. H. (2011). Mind Your Errors Evidence for a Neural Mechanism Linking Growth Mind-Set to Adaptive Posterror Adjustments. *Psychological Science*,

⁷ Boaler, Jo, Mistakes Grow Your Brain, <https://www.youcubed.org/think-it-up/mistakes-grow-brain/>

⁸ Dweck, Carol Ted Talk: The power of believing that you can improve https://www.ted.com/talks/carol_dweck_the_power_of_believing_that_you_can_improve#t-429885



Growth Mindset = Equality

When teachers use growth mindset strategies such as using the word **"yet"** when speaking to children who haven't grasped a concept and praising effort rather than intelligence, equality occurs. Children no longer see themselves as less intelligent or more naturally good at something than anyone else. The dynamics of the classroom changes and children who chronically underperform start believing that they are no different to anyone else. By not highlighting who is doing well to children (and by default conveying who is underperforming), the focus shifts to placing importance on trying hard and understanding that mistakes are in fact good because it means you are learning. This promotes equality amongst students and provides struggling students with the belief to succeed in themselves.



Top 5 tips for creating a growth mindset classroom

- Harness the power of "YET" – use the word to provide students with a pathway to success
- Use praise wisely - praise effort rather than intelligence
- Be mindful of using fixed language - achievement is about hard work, not natural ability
- Teach the science behind making mistakes
- Model the behaviour you want – don't describe yourself with fixed language



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