

A disposition is “a general, relatively stable inclination to approach new learning tasks and situations in a particular way” (Ormrod, 2012), yet “remaining to an important extent malleable” (Entwistle and McCune, 2013, p.268).

The **dispositional** dimension

- represents the habitual aspect of the learner, underpinned by personal beliefs about learning and personal attributes such as curiosity, which moderates how the learner approaches learning.



The dispositional dimension represents the habitual aspect of the learner, underpinned by personal beliefs about learning and personal attributes such as curiosity, which moderates how the learner approaches learning.

Personal beliefs about learning

- The learner's ability to examine their assumptions about their power to influence their intelligence, capability and the process and outcome of learning, and to adopt beliefs that are conducive to effective learning.

Curiosity

- The learner's awareness of their interest and passion and their inclination to engage in knowledge seeking.

Scenario

Why would a student study for exam instead of playing online games / watching TV / hanging out with friends?



Concepts

- Locus of control (Rotter, 1954)
- Learned helplessness (Seligman and Maier, 1967)
- Self-efficacy (Bandura, 1977)
- Growth mindset (Dweck, 2006)

Carol Dweck

The Tyranny of Now

The Power of Yet



Source: The power of believing that you can improve
<https://youtu.be/XomgOOSpLU>

Two mindsets

Fixed mindset

- Your qualities are carved in stone.

Growth mindset

- Your basic qualities are things you can cultivate through your efforts, your strategies, and help from others.

Tell the difference

Fixed-mindset statements

- Math is not my thing.
- I'm not good at this.
- She's the smart kid in class.
- Scores mean more than growth.
- It's better to look smart than take risks.
- I will never be that smart.
- I feel dumb if I'm corrected.

Growth-mindset statements

- I can grow my brain.
- I need to change my strategy.
- My hard work and effort has paid off.
- I'm not there yet.
- People can change.
- A good attitude is important in learning.
- I'm a problem solver.

Why bother with mindsets?

	Fixed mindset	Growth mindset
Challenges	Avoid challenges to save face.	Embrace challenges as chances for growth.
Obstacles / setbacks	Proofs of incompetence. Give up.	Part of learning. Persevere.
Effort	Effort makes no difference.	Effort makes a difference.
Criticism	Ignore it / take it personally.	Treasure it as nutrient for growth.
Success of others	A threat that evokes feelings of vulnerability	A source of inspiration and education

False growth mindset

- Mindset = Effort
- Any effort is good
- Growth mindset <> Natural talent
- Believe in growth mindset = Have a growth mindset

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How can we help educators adopt a deeper, true growth mindset, one that will show in their classroom practices?

Dweck: Let's legitimize the fixed mindset.



What triggers fixed-mindset reactions in you?

- Think of the last time you were faced with a difficult task/situation and felt so hopeless that you just wanted to give up and quit.
- What brought you back?

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If you hear a voice within you say, 'you cannot paint', then by all means paint, and that voice will be silenced.

Vincent Van Gogh

How to change a mindset?

Social learning theory

Transformative learning



Attributes



Communication



Environment



Pedagogy

Attributes of a growth mindset teacher

Flexible

High
expectations

Communicative

Strong
relationships

Process oriented

Values mistakes

Empathetic

Positive
interdependence

Equitable

Communication

Give specific, process-oriented praise/critique.

Person praise/critique	Process praise/critique
You're a natural at math.	These problems didn't give you much challenge. Let's move on to something that will really stretch you brain!
You're so smart.	I like how you used different strategies to figure out these problems.
You tried your best.	You did not meet your goal, but what did you learn? What can you try next?
Maybe math is just not one of your strengths.	Maybe math is not one of your strengths YET. But if you find the right way to learn it and keep practicing, it will be.
Vague praise	Specific praise
Great!	Great strategy; that took some creative problem solving.
Good work!	Good work organising the details so well in the essay.

Useful phrases

Source: Brock, A., & Hundley, H.
(2018). *Phrases for Growth Mindset*.
Berkeley, CA: Ulysses Press.

- I noticed how...
- Look at how much progress you've made on...
- I see a difference in this work compared to ...
- I admire how hard you have worked on...
- I can see you really enjoyed learning...
- Could it make a difference if you...?
- Have you considered trying a different strategy to ...?
- You're on the right track here, but could benefit from...



- Think of an example of a fixed-mindset expression that you have heard from your students/friends/yourselves. Write it on the wall.
- Write next to one of the expressions a response that may guide the moaner towards adopting a growth mindset.

Environment

Believe that student achievement is possible. Emphasise learning over performance.

Climate

- Offer students autonomy over tasks
- Show interest in the personal lives of all students; show respect

Input

- Involve all students in developing rubrics
- Ensure that students can access the tools they need to succeed

Output

- Allow students to coach one another to try new methods, etc.
- Display work from students that shows improvement

Feedback

- Provide effort-oriented, specific feedback as the student works through a task
- Give students opportunities to address feedback and resubmit work

Pedagogy

Self-efficacy

Belief in one's capabilities to achieve a goal or an outcome

Successful experiences, observing a peer succeed at a task, receiving credible positive feedback, and positive mood can boost one's self-efficacy

- Set specific, challenging but attainable goals
- Note the progress of working through a plan
- Criterion-referenced assessment
- Use moderately difficulty tasks
- Use peer models
- Teaching specific learning strategies
- Capitalise on students' interest
- Allow students to make their own choices
- Give credible praise and encouragement
- Encourage accurate attributions of failure

Pedagogy

Transformative learning

Merizow (1994)

Frames of reference, habit of mind,
and points of view can be
transformed through critical
reflection of assumptions





Activity

Develop a set of prompt questions to guide students to reflect on their beliefs about learning

Survival learners

Lack confidence in their ability to learn; believe that effort makes little difference and ability is fixed; tend to avoid challenges, dislike effort and give up easily when facing setbacks

Maturing learners

Increasingly confident in their ability to learn; believe that effort makes a difference and ability can be developed; tend to face challenges positively, make an effort and do not give up easily

Sophisticated learners

Confident in their ability to learn; engage in learning with a sense of agency and continuously seek to develop their ability; tend to pursue challenges, value effort, resilient to setbacks

Rubric

Personal belief about learning



Activity

Develop a set of prompt questions to guide students to reflect on their beliefs about learning

- How do I react to challenges?
- What are the beliefs that give me this reaction?
- Do I give up too easily?
- What have I done to grow my ability?
- How can my learning strategy be refined?
- Have I been finding excuses for my failure?
- Is this the only way to look at it?
- Could I have done it differently?

Are you curious?

Curiosity has been described a “passion for learning” by Cicero and “thirst for knowledge” by Freud (Loewenstein, 2004). Kashdan et al. define it as “a positive emotional-motivational system associated with the recognition, pursuit, and self-regulation of novel and challenging opportunities” (Kashdan et al., 2004, p.291).



Why bother with curiosity?

- Curiosity jump-starts and sustains intrinsic motivation, allowing deep learning to happen with ease
- Curiosity releases dopamine, which not only brings pleasure but also improves observation and memory
- Curious people exhibit enhanced cognitive skills

Underlying causes of curiosity

Loewenstein, G. (1994). The psychology of curiosity: A review and reinterpretation. *Psychological Bulletin*, 116(1), 75.

Drive theories

- Curiosity as a naturally-occurring urge that must be satisfied in a very similar manner to how we satisfy our hunger by eating

Incongruity theories

- Curiosity is motivated when we're presented with something that doesn't fit into our understanding of the world

Killing curiosity

Are we unintentionally quenching students' curiosity?

5 ways to kill curiosity

- Dictate all learning and eliminate student choice
- Focus on the answers not the process
- Don't mistake play and experimentation as real learning
- Keep an orderly classroom
- Present yourself as the omniscient expert

Killing curiosity

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It is a miracle that curiosity survives formal education.

Albert Einstein

Killing curiosity

Are we unintentionally quenching students' curiosity?



As soon as we mention exams, we kill that bit of passion. When you mention exams, it's like OK, you have to stop being curious now, you've got to work hard. The purpose [for students] is not to learn science, it's to get GCSE.
(Mr. Sharma)

Curiosity classroom

The curiosity classroom provides space for authentic and emergent experience, possibility and sense of ownership (Ostroff, 2016, p.7-8)

- Promote exploration and experimentation
- Allow autonomous and effortless learning
- Embrace intrinsic motivation
- Bolster imagination and creativity
- Support questioning
- Make time
- Create curiosity habitats

Practical ideas

Genius hour

- Challenge students to explore out-of-syllabus but relevant topics/questions of their interest. Set aside a time each week for them to share their findings with their classmates.

Question quest

- Put out a focus theme and invite students to ask questions in turn, without stopping to answer them. The next question can be a follow-up to the last question, or it can change the direction of the inquiry, or it can tackle the theme from a different angle, etc.

Survival learners

Not interested in learning new things; uncomfortable with novelties; avoid things that they don't understand

Maturing learners

Becoming aware of their interests and passions; open to novelties; do not shy away from things that they don't understand

Sophisticated learners

Passionate about learning new things; feel engaged by novelties; eager to learn about things that they don't understand

Rubric

Curiosity