

Innovation in Education:

Problems,
Solutions and
Success Stories

Dr. Sergey
Tantushyan



Problem #1: Learners enter educational process with a 'limited-buy-in' mindset...



**... yet teachers in most
educational institutions
still are “talking heads”.**



**Problem #2: We educate
children to be successful in
future,**



...based on our past experiences,

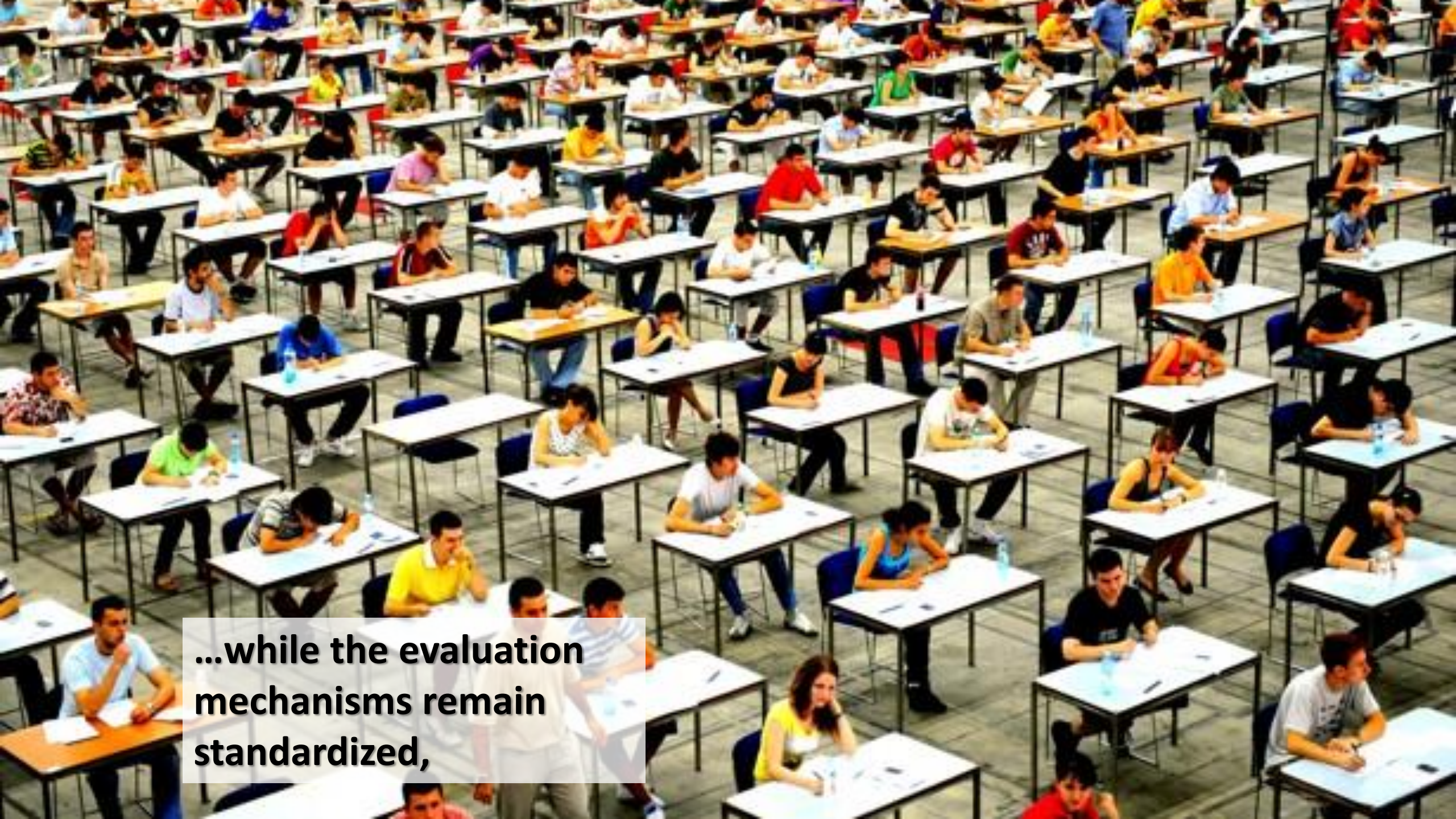




...equipping them with false expectations, not life-readiness skills.

Problem #3:
Students learn
differently...





...while the evaluation mechanisms remain standardized,

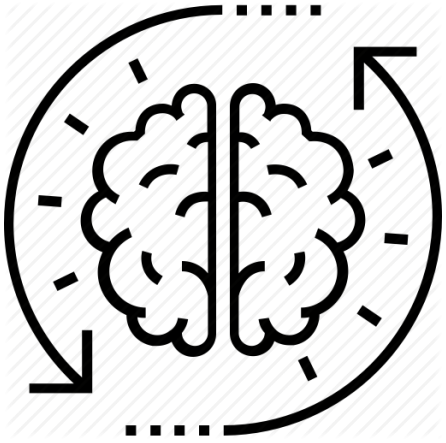


**...demotivating study
in the first place.**



The loop has closed.





Problem #1:
Learners enter educational process with a 'limited-buy-in' **mindset**, have a short attention span, yet teachers in most educational institutions still are "talking heads".



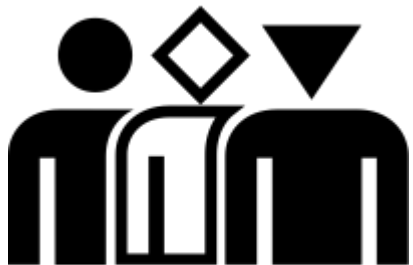
Cool-ify
education



Problem #2:
We educate children to be successful in **future**, based on our past experiences.



Develop skills and
competencies,
not knowledge

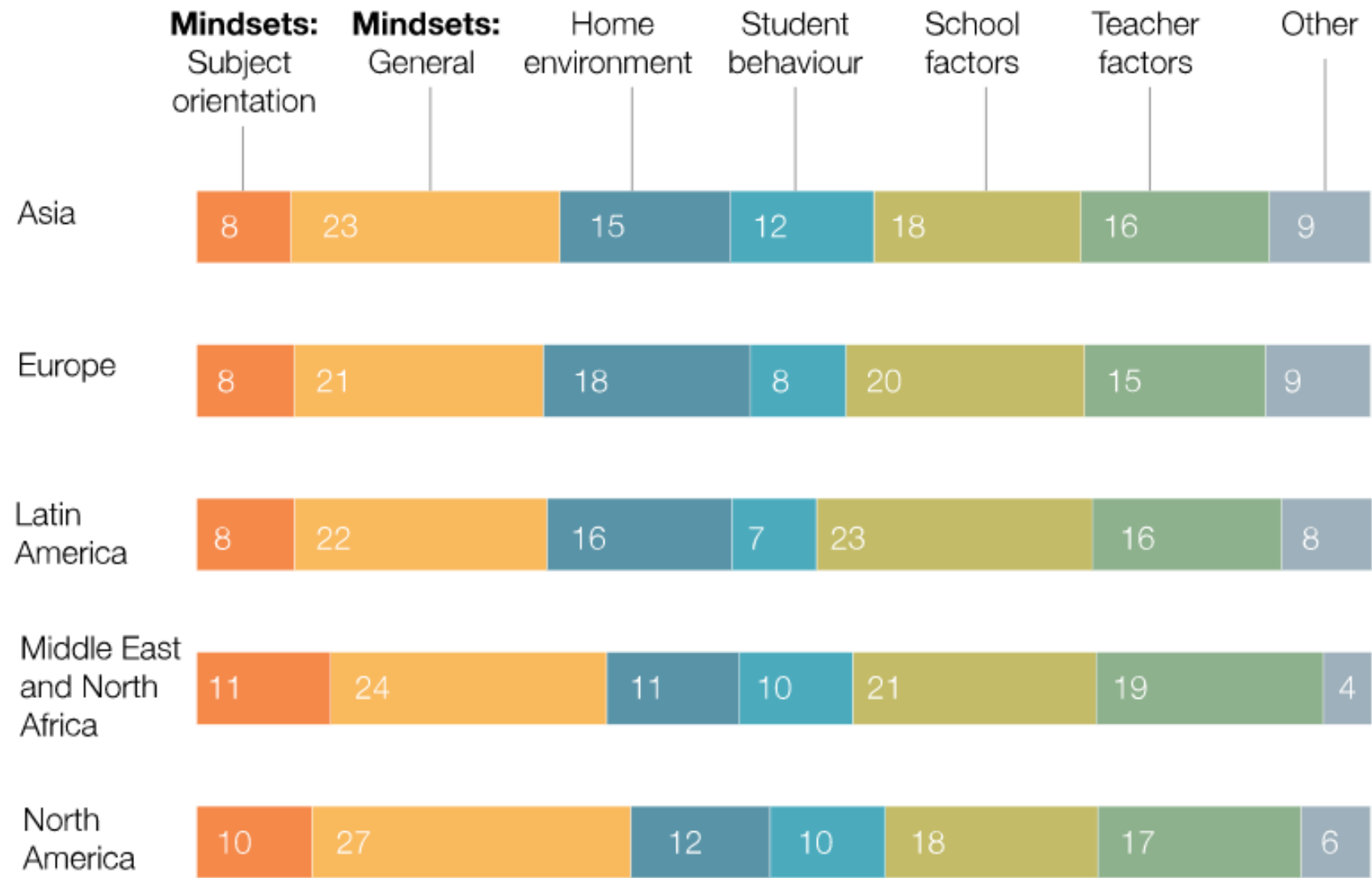
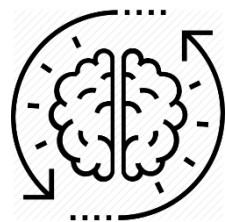


Problem #3:
Students learn **differently** while the evaluation mechanisms remain standardized, demotivating study in the first place.



Evaluate to
encourage, not
to demotivate

Mindset is a determinant of success, in education, too.

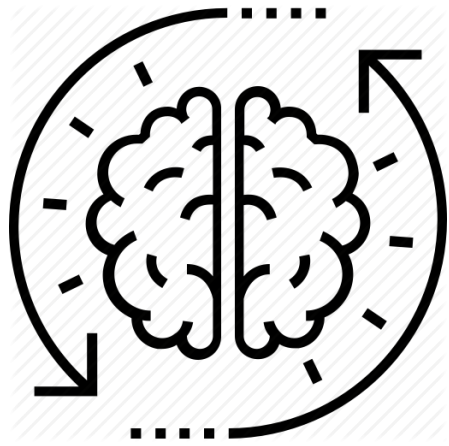


Note: Numbers may not sum to 100% due to rounding

***Want to Raise Successful Kids? Science Says Praise Them Like This (but Most Parents Do the Opposite)** Stop praising kids for their innate or God-given abilities, and instead focus on their effort, By Bill Murphy Jr. Executive editor of operations, Some Spider. Based on research by Carol S. Dweck, Ph.D., is one of the world’s leading researchers in the field of motivation and is the Lewis and Virginia Eaton Professor of Psychology at Stanford University.

****Program for International Student Assessment (PISA)**

Source: **McKinsey Analysis, How to improve student educational outcomes: New insights from data analytics**, By Mona Mourshed, Marc Krawitz, and Emma Dorn

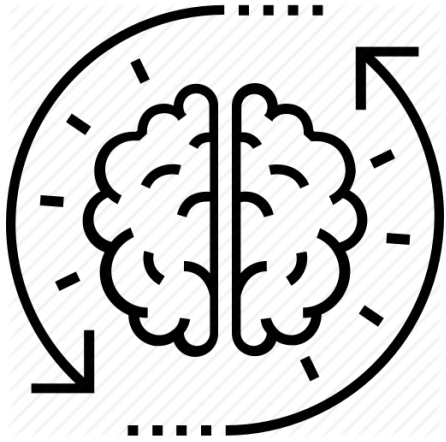


Cool-ify education

(1) Storytelling



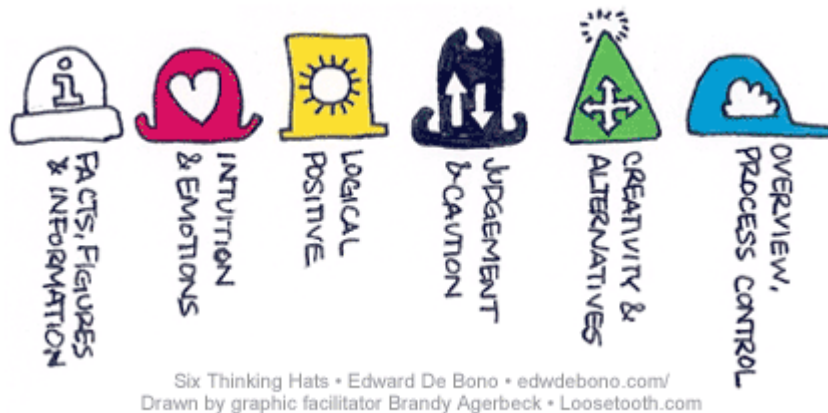
- We have grown up listening to stories, fairy tales, reading history books. We think in a 'story' format.
- Stories are effective because there is no individual who does not have their own story. Every person can imagine themselves participating in the story.
- If you use stories, you can simply get your point across with longer retention, better understanding and in short span of time.

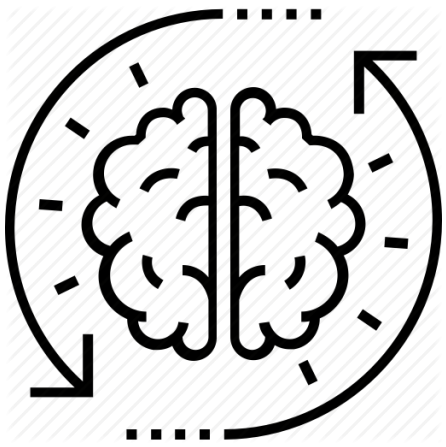


Cool-ify education

(2) Activities and Games

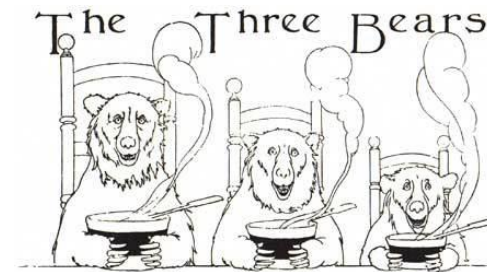
Get your audience involved in games and activities that help them collect information and get to know one another. If they sit too long, their brains start to operate more in a passive mode than in active mode.





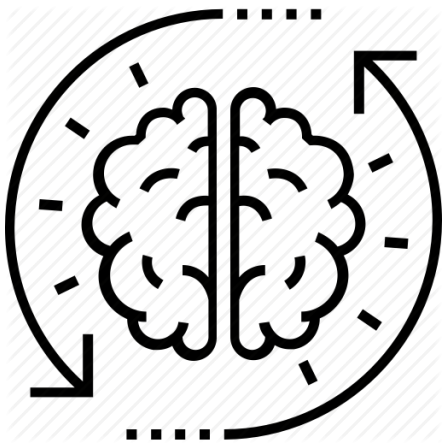
Cool-ify education (3) Threes

- If you speak in threes, people tend to remember the points of your presentation better.
- We all come from childhood: many fairy tales have three heroes. Always three apples fall from the sky.
- From Marketing and Consumer Behavior silences: *Selection between three options does not leave a customer with a guilt feeling.*



“It's as easy as 1 ▶ 2 ▶ 3”

© Sergey Tantushyan”

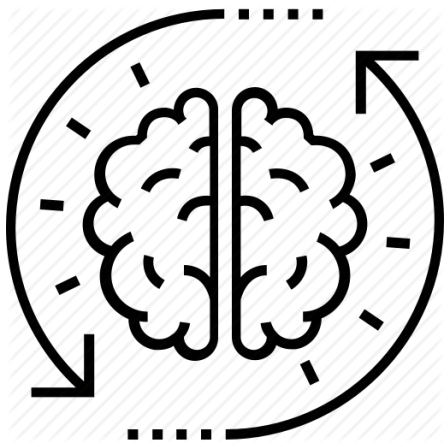


Cool-ify education

(4) Questioning

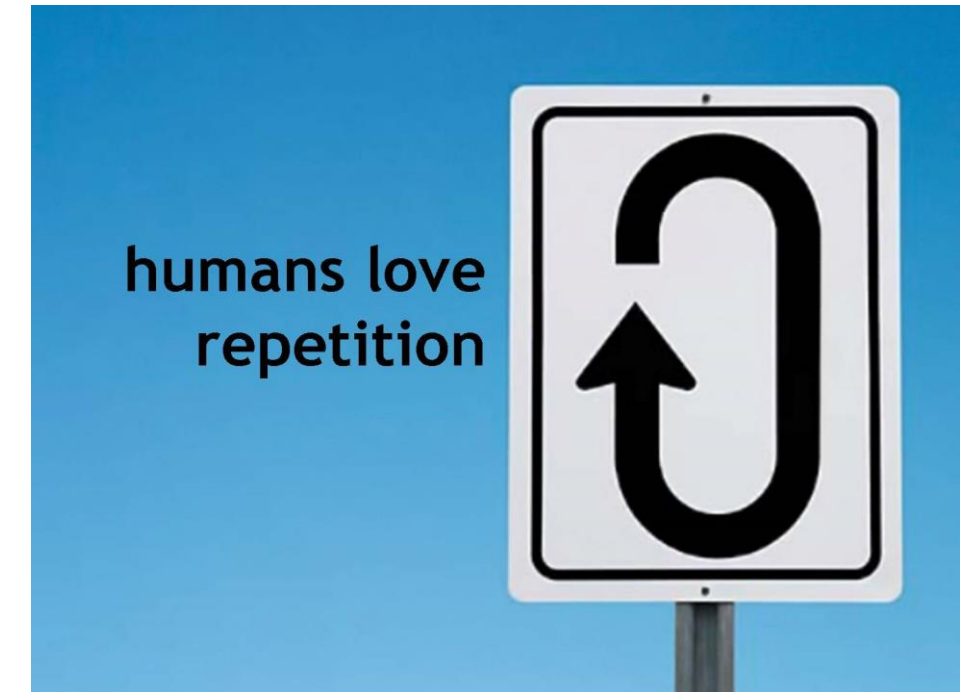
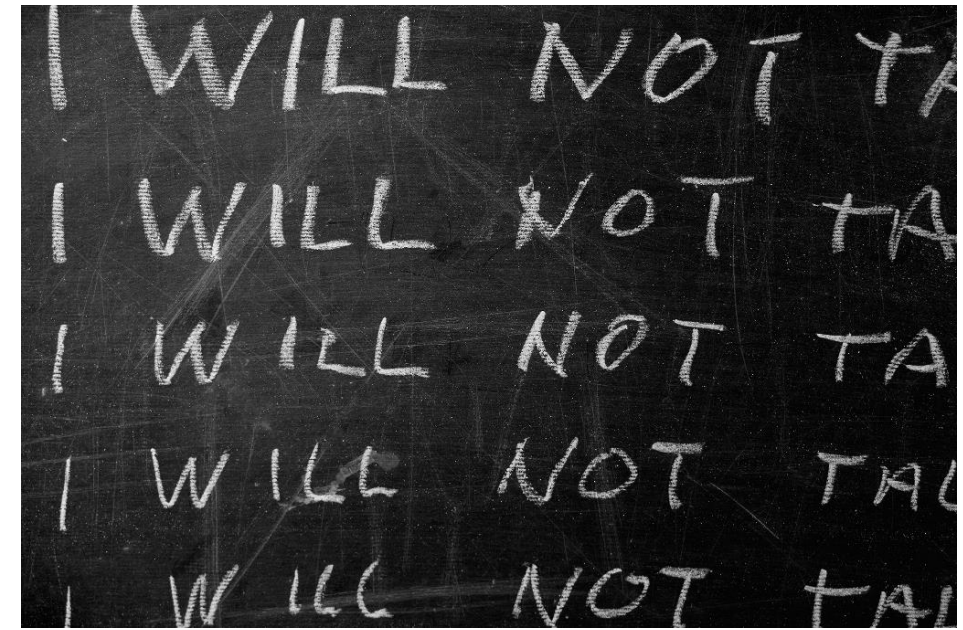


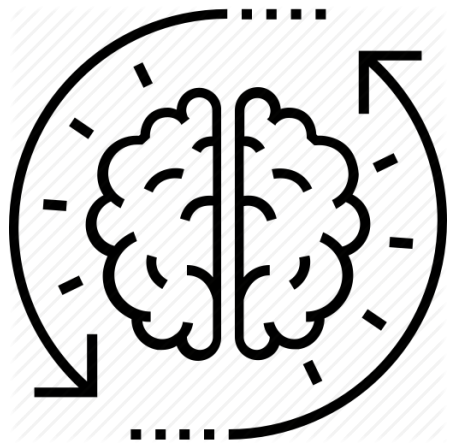
- During the presentation, your audience is likely to remember less than 30% of the sentences.
- However, they will remember 85% of the questions you ask.
- The best questions are ones that get your audience agreement, shock them to attention and get them thinking.
- No doubt, by asking questions you deepen the audience conviction and understanding.



Cool-ify education (5) Repetition

- Talented and skilful presenters use the technique of repeating important points all through their presentations.
- Naturally, a creative presenter uses different ways to repeat the same points, otherwise it can be quite frustrating for the audience.



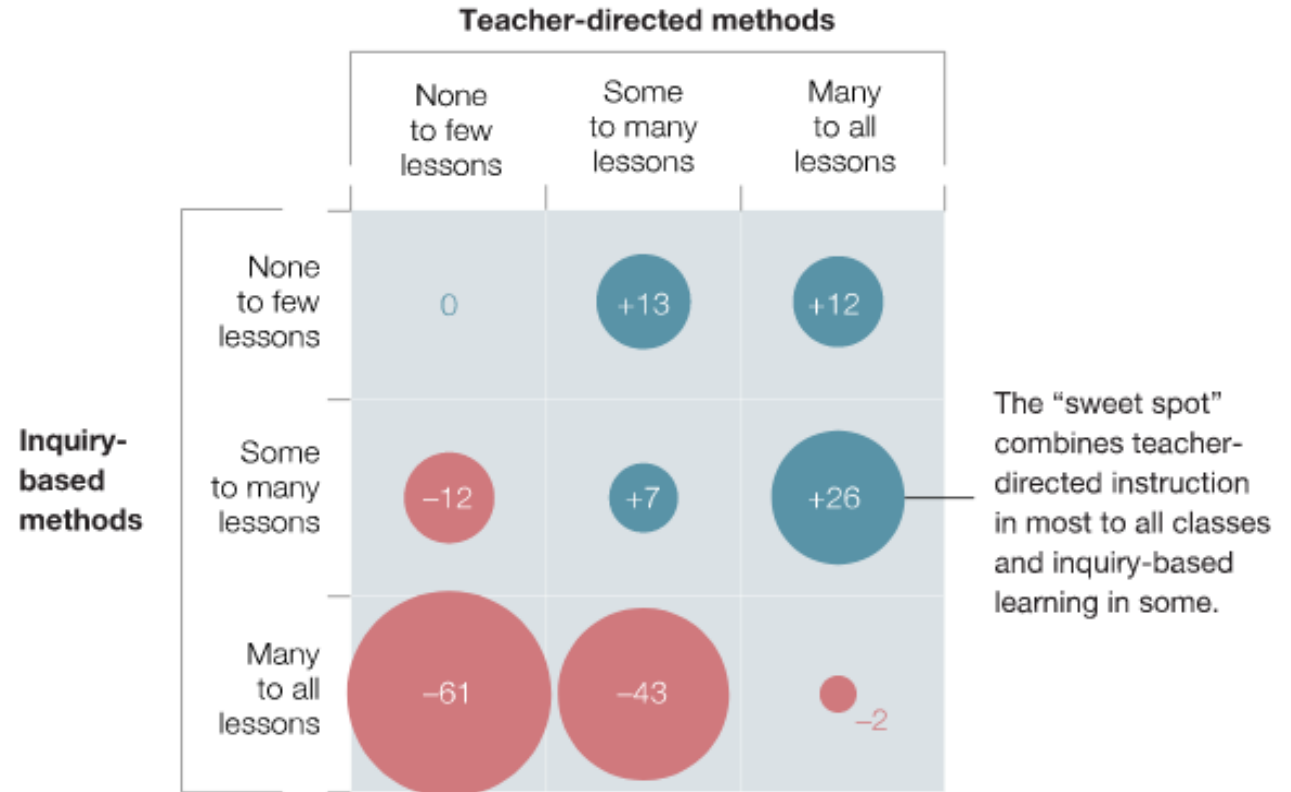


Cool-ify education (6) Method Mix

Use teacher-directed and inquiry-based instruction for better engagement, and better student learning outcomes.

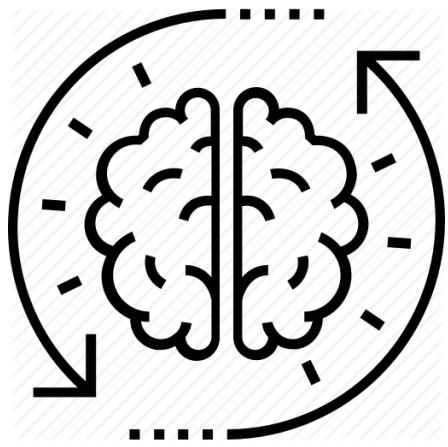
Students who receive a blend of teacher-directed and inquiry-based instruction have the best outcomes.

Point change in PISA¹ science score relative to baseline,²
average score increase ● or decrease ●



¹ Programme for International Student Assessment.

² Statistically significant expected change in score controlling for PISA’s index for economic, social, and cultural status (ESCS), public/private schools, and urban/rural location for all quadrants except for teacher-directed and inquiry-based instruction in all classes (-2), which was not significant at 95% confidence level.



Cool-ify education

(7) Use tech in class



Poll Everywhere

Perfect app for responding to polls, presenting polls and clicking through PowerPoint presentations. You won't find as a simple app as Poll Everywhere.

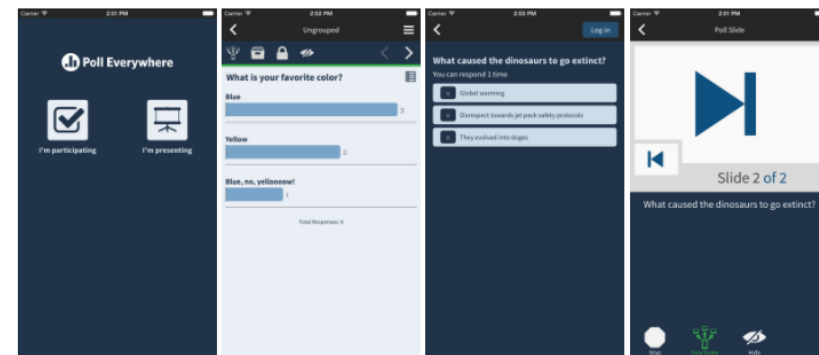
It has several main features:

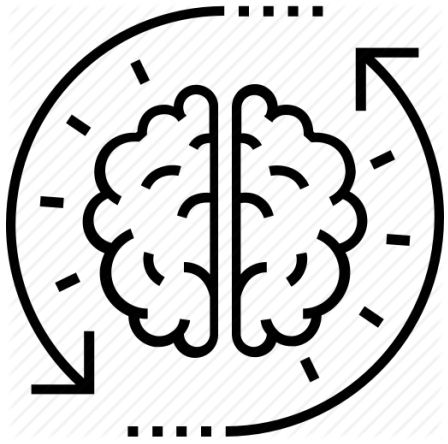
- 1.) Respond to polls: A target audience can use the app to respond to the presenter's questions live, using their devices and this app
- 2.) Poll audience: Presenters can ask the audience questions and display poll responses live.
- 3.) Navigate in Powerpoint: Presenters can control the flow of Powerpoint presentations using a smartphone as a wireless remote.

Participants

Audience members or students. Aside from the app, they can respond via browser, text message, or Twitter.

Professors, teachers or presenters can create and display questions on the fly, including Q&A and multiple choice polls. Next, they presented their polls directly from the web or embedded in a PowerPoint (Microsoft office) or Keynote presentation. In turn, students can easily respond to polls or vote, true/false, agree or disagree, using the app on a smartphone or tablet. All Responses are displayed in real-time. Great for classroom participation, or gathering opinions from the audience.

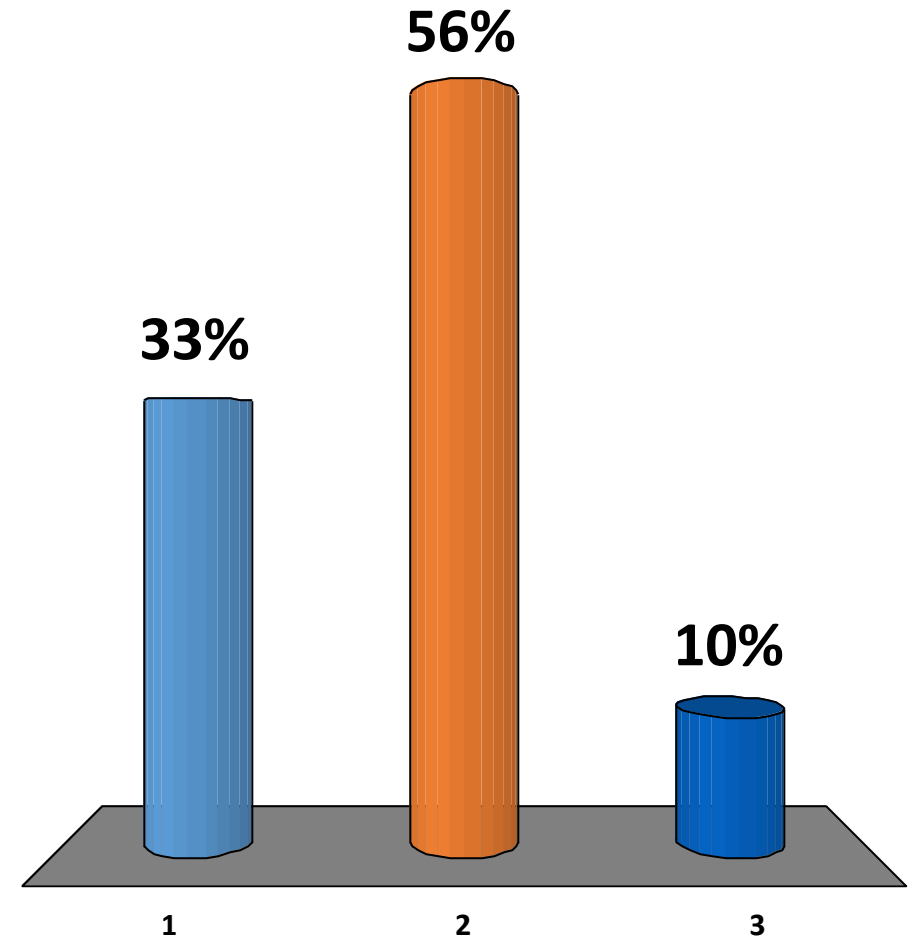


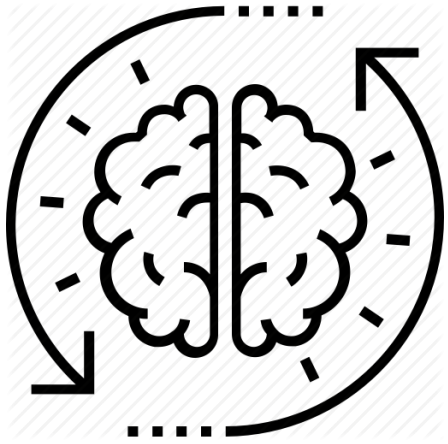


Example: Cool-ify
education
(7) Use tech in
class

1. Expectancy theory
2. Goal Setting theory
3. Equity Theory

*Which process theory explains
your motivational experience?*





Cool-ify education

(8) Facilitate, don't teach

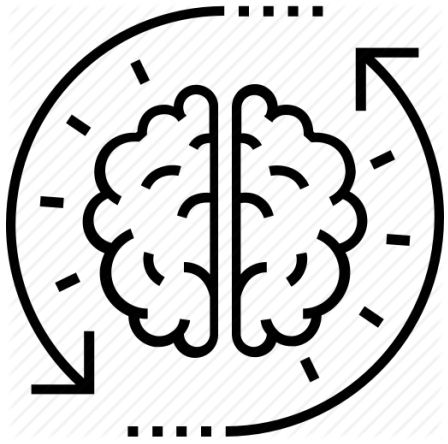
The tasks of an instructor are to:

1. Maintain eye contact with the student,
2. Listen vs. hear them,
3. Check if you understood,
4. Encourage the student to continue or repeat for others to get engaged,
5. Ask others if they agree,
6. May be agree encouragingly or disagree politely
7. Make a note on a whiteboard,
8. Treat students equally,
9. Use tools to direct discussion,
10. Repeat.



The task of an instructor are NOT to

1. Evaluate the arguments students make
2. Give right answers to questions
3. Teach.



Cool-ify education

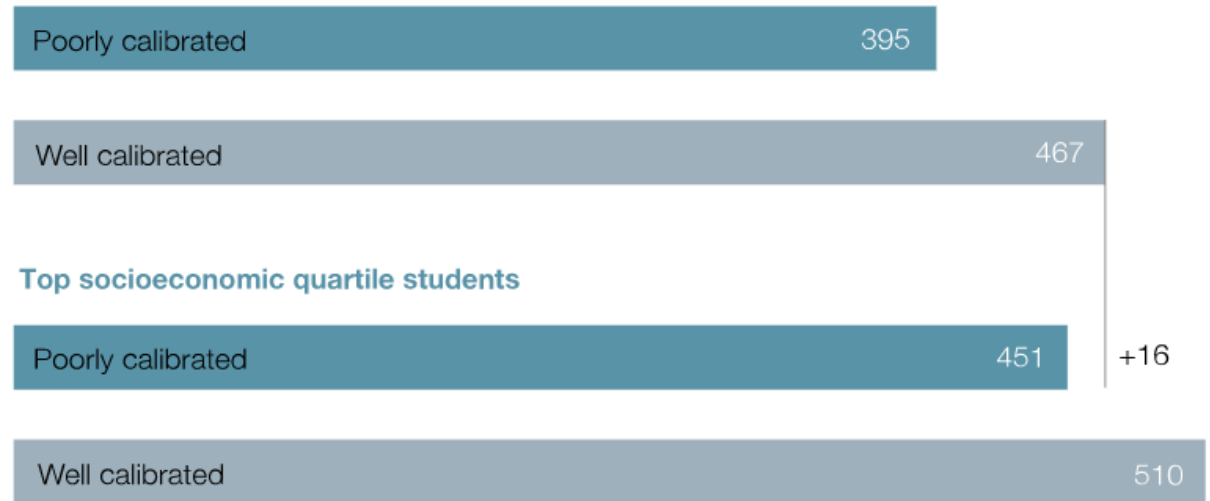
(9) Tell students they are cool

Students with a “growth mindset”—those who believe they can succeed if they work hard—performed 9 to 17 percent better than those with a “fixed mindset”—those who believe their capabilities are static.

Having a well-calibrated motivation mindset can be equivalent to leapfrogging into a higher socioeconomic quartile.

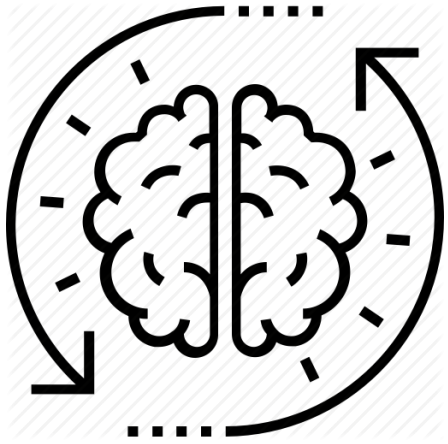
North America low performing schools,¹ average PISA² science score 2015

Bottom socioeconomic quartile students



¹ Schools with average PISA score of less than 480 (serving 37% of North American students). Statistically significant controlling for socioeconomic status, school type and location.

² Programme for International Student Assessment.



Cool-ify education

(10) Be cool yourself, teach easy stuff, and... be a man

Source: **Teaching in the Eye of the Beholder**
 Study of millions of online ratings of professors suggests scores vary with an instructor's gender, discipline and perceived "easiness."
 By Colleen Flaherty January 13, 2017
www.insidehighered.com

Business	Male	2695	3.51***	3.53***	3.52***	3.08
	Female	1112	3.35***	3.37***	3.36***	3.06
Political science	Male	2606	3.65***	3.62***	3.64***	3.00
	Female	862	3.46***	3.46***	3.46***	2.95
Economics	Male	2776	3.30***	3.37**	3.34**	2.84
	Female	761	3.18***	3.29**	3.24**	2.84

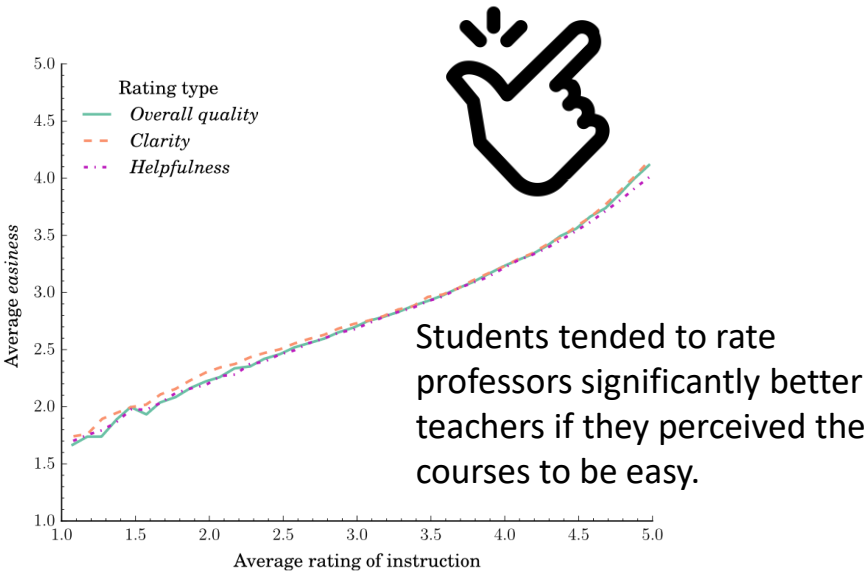
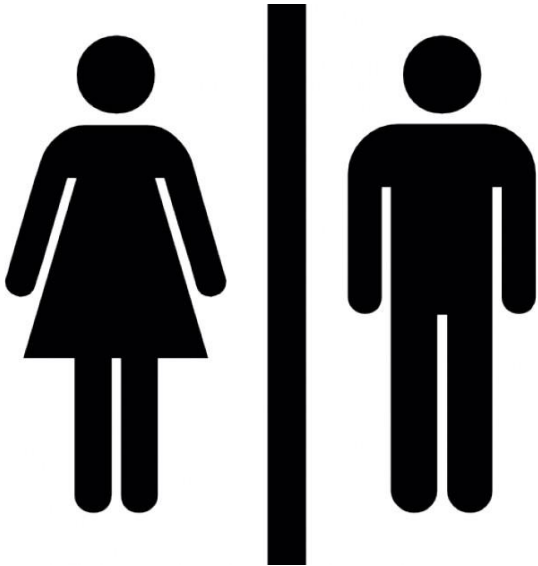
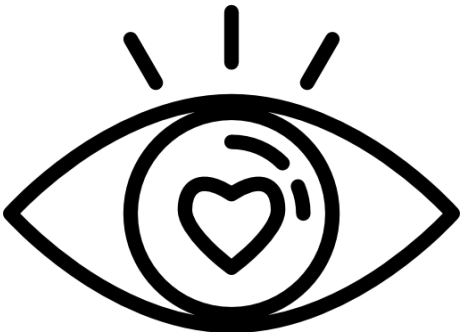


Figure 2. Plot of average *easiness* scores among professors on RateMyProfessors as a function of their average rating of instruction, which includes *overall quality* (solid line), *clarity* (dashed line) and *helpfulness* (dot-dashed line).

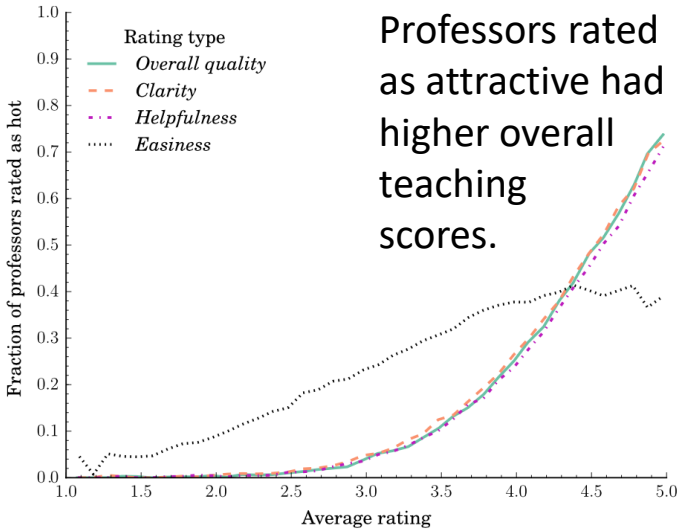
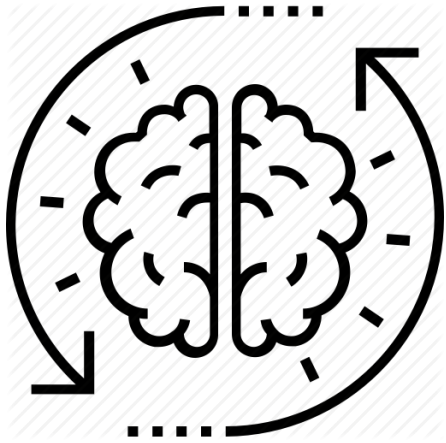


Figure 3. Plot of the fraction of professors rated as 'hot' as a function of average rating, which includes *overall quality* (solid line), *clarity* (dashed line), *helpfulness* (dot-dashed line) and *easiness* (dotted line).



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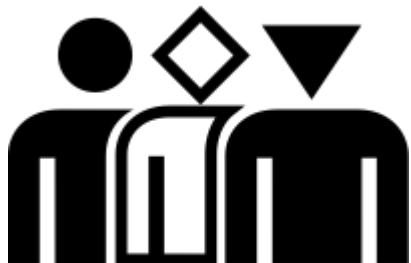
Cool-ify
education



Problem #2:
We educate children to be successful in **future**, based on our past experiences.



Develop skills and competencies,
not knowledge



Problem #3:
Students learn **differently** while the evaluation mechanisms remain standardized, demotivating study in the first place.



Evaluate to
encourage, not
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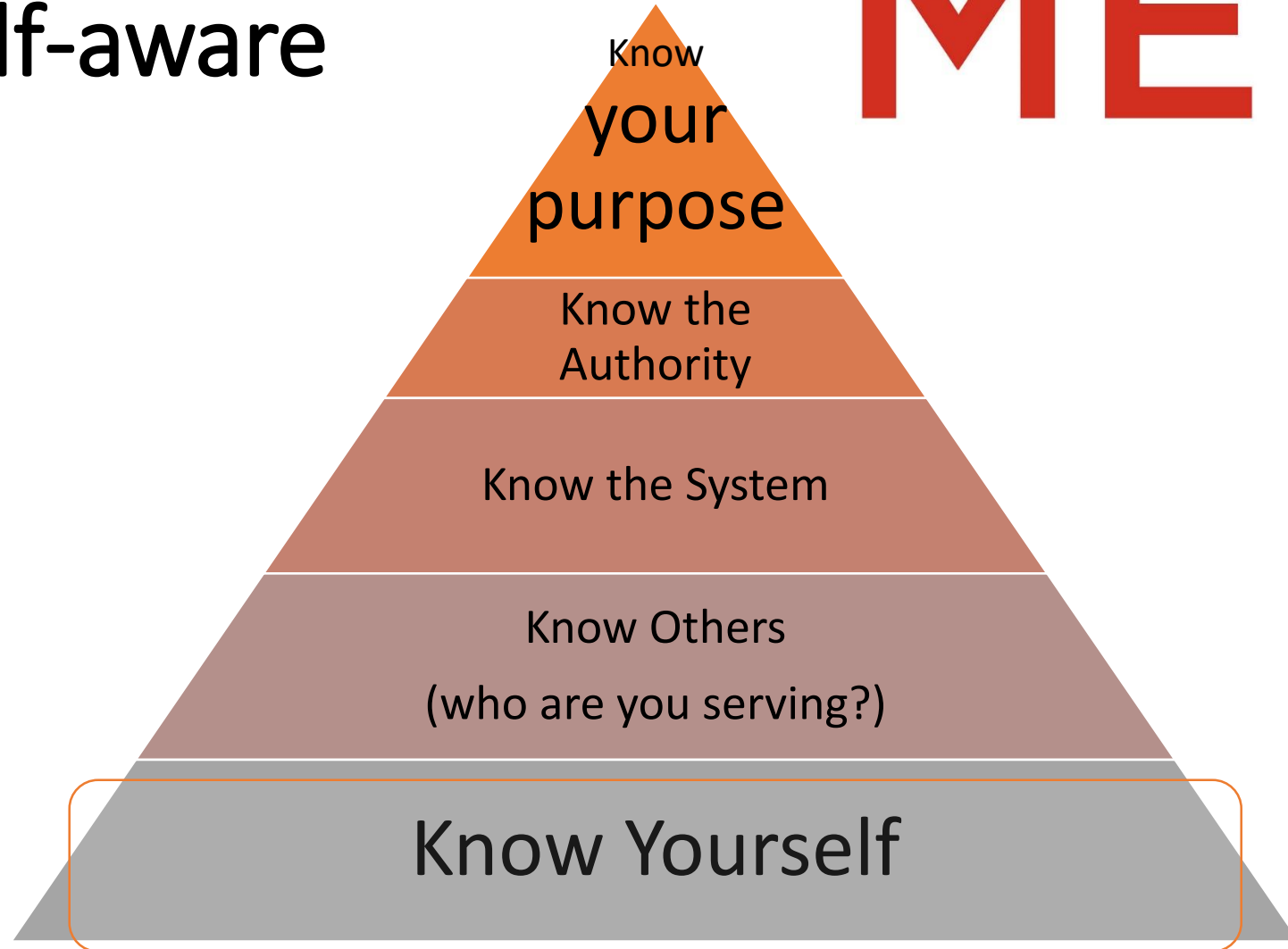
Develop skills, not knowledge

(1) Encourage students to become self-aware

WHAT'S
IN IT FOR
ME

Education is about change—of minds, perspectives, values, understandings, meanings, selves—really all tools through which we construct cultures and identity.” With the right tools, literary analysis can provide the opportunity to engage students in activities that will shape their sense of themselves in the world, and provide them with opportunities to evolve through exploration of text and classroom discourse.*

*Importance of Self-Awareness through education,
[*Dialoguing Across Cultures, Identities, and Learning*](#),
Bob Fecho and Jennifer Clifton





Develop skills, not knowledge

(1) Encourage students to become self-aware

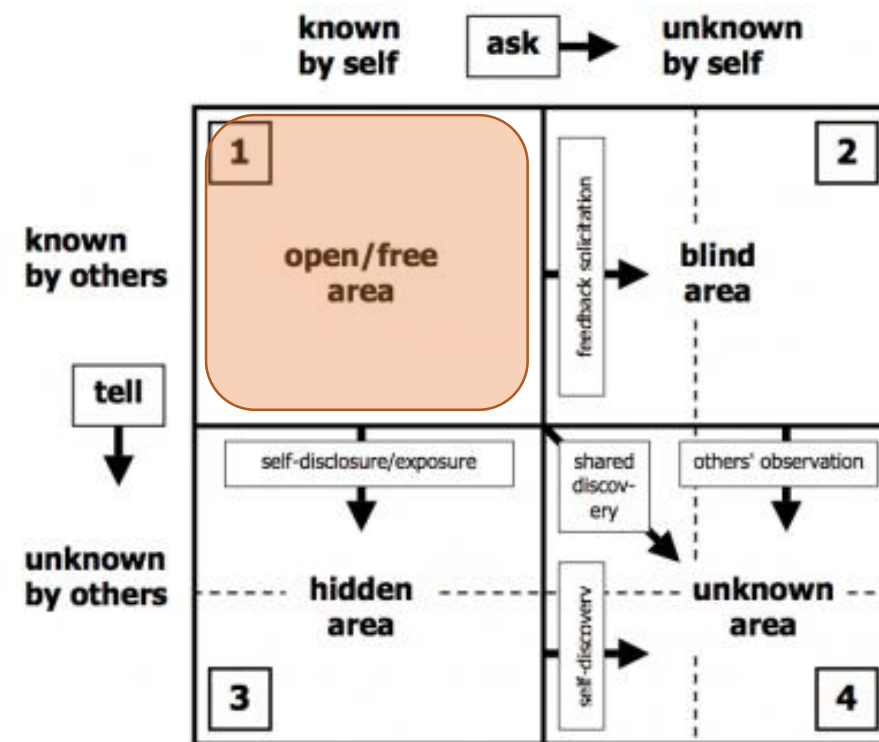
Able
Accepting
Adaptable
Bold
Brave
Calm
Caring
Cheerful
Clever
Complex
Confident
Dependable
Dignified

Knowledgeable
Logical
Loving
Mature
Modest
Nervous
Observant
Organized
Patient
Powerful
Proud
Quiet
Reflective
Relaxed

Self-assertive
Self-conscious
Sensible
Sentimental
Shy
Silly
Smart
Spontaneous
Sympathetic
Tense
Trustworthy
Warm
Wise

Religious
Responsive
Searching
Energetic
Extroverted
Friendly
Giving
Happy
Helpful
Idealistic
Independent
Ingenuous
Intelligent
Introverted
Kind
Witty

A Johari window consists of the following 56 adjectives used as possible descriptions of the participant. In alphabetical order they are:

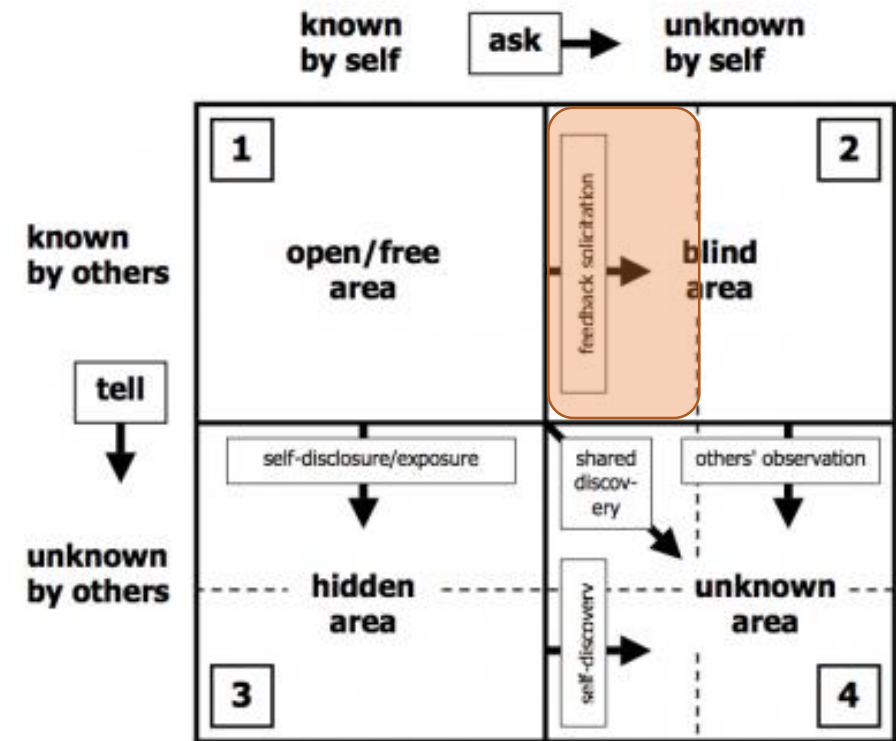




Develop skills, not knowledge

(1) Encourage students to become self-aware

Teach students to provide and receive feedback, in order to get rid of their blind areas





Develop skills, not knowledge

(2) Use Case Studies

1. **Capturing reality:** Case studies are a lot like stories. They have the ability to capture ‘lived reality’ and a potential to retain more of the “noise” of real life than many other types of research.*
2. **Abstracting from reality:** A major advantage of teaching with case studies is that the students are actively engaged in figuring out the principles by abstracting from the examples. This develops their skills in:
 - *Problem solving*
 - *Analytical tools, quantitative and/or qualitative, depending on the case*
 - *Decision making in complex situations*
 - *Coping with ambiguities***
3. **Co-creating new theory based on reality:** Case studies can help experimenters adapt ideas and produce novel hypotheses which can be used for later testing.

*What are the benefits and drawbacks of case study research? Published in [Method, Research Students](#) by [Mark Murphy](#) on May 24, 2014

**Dunne, D. and Brooks, K. (2004) *Teaching with Cases* (Halifax, NS: Society for Teaching and Learning in Higher Education), ISBN 0-7703-8924-4



POPULAR IN STRATEGY



Apple Inc in 2015 (Case)

Cola Wars Continue: Coke and Pepsi in 2010 (Case)

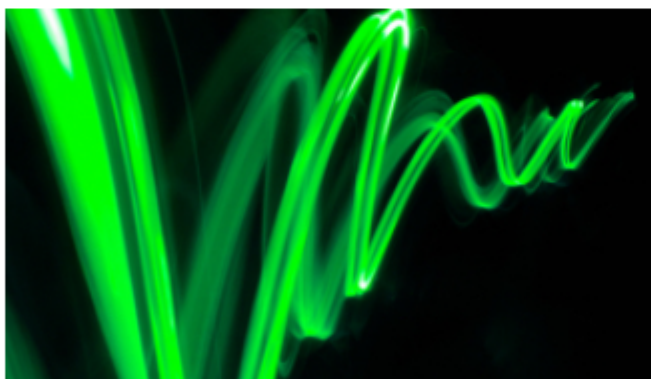
The Five Competitive Forces That Shape Strategy (Article)

Walt Disney Co.: The Entertainment King (Case)

ZARA: Fast Fashion (Case)

What is Strategy? (Article)

SIMULATIONS IN STRATEGY



Strategy Simulation: The Balanced Scorecard

Strategic Innovation Simulation: Back Bay Battery V2

Strategy Simulation: Competitive Dynamics and Wintel V2

"The simulation has been a huge success with students." - Review of Strategic Innovation Simulation: Back Bay Battery V2

Strategic Innovation Simulation: Back Bay Battery...

Marketing Simulation: Managing Segments and...



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REV: JANUARY 4, 2017

YOUNGME MOON

Uber: Changing the Way the World Moves

Uber is evolving the way the world moves. By seamlessly connecting riders to drivers through our apps, we make cities more accessible, opening up more possibilities for riders and more business for drivers. From our founding in 2009 to our launches in hundreds of cities today, Uber's rapidly expanding global presence continues to bring people and their cities closer.

— From the Uber website, November 2015

In late 2015, Uber was among the most high-profile new companies of its generation. Founded just six years ago, the company connected passengers to drivers at an unprecedented scale, using point-to-point software enabled by smartphone technology.

Customers raved about Uber's reliability and convenience. The breathtaking efficiency of its value proposition had fueled astonishing growth: It was now said to be booking 2 million¹ rides a day, and although it did not report revenues as a private company, analysts estimated Uber's net commission from drivers would come in between \$1.5 billion and \$2 billion² in 2015.

But if there was an adage about disruptive technology companies—"move fast and break things"—few companies embodied this adage better than Uber. Not only did the company endure frequent customer criticisms about its surge pricing policy, Uber was constantly battling government regulators, taxi companies, and critics who charged that they were playing fast and loose with the legal system. Barry Korengold, President of the San Francisco Cab Drivers Association, described Uber this way: "I think of them as robber barons. They started off by operating illegally, without following any of the regulations and unfairly competing. And that's how they became big—they had enough money to ignore all the rules."³

Still, by late 2015, there was no denying the global phenomenon that Uber had become. Like Google, its brand name was already in regular use as a verb. It had more than a million active drivers



Develop skills, not knowledge

(3) Students learn better through Project-Based-Learning (PBL)

1. **PBL makes school more engaging for students.** Today's students, more than ever, often find school to be boring and meaningless. In PBL, students are active, not passive; a project engages their hearts and minds, and provides real-world relevance for learning.
2. **PBL builds success skills for college, career, and life.** In the 21st century workplace and in college, success requires more than basic knowledge and skills. In a project, students learn how to take initiative and responsibility, build their confidence, solve problems, work in teams, communicate ideas, and manage themselves more effectively.
3. **PBL connects students and schools with communities and the real world.** Projects enable students to solve problems and address issues important to them, their communities, and the world. Students learn how to interact with adults and organizations, are exposed to workplaces and adult jobs, and can develop career interests. Parents and community members can be involved in projects.

Give Me Shelter project

Anatomy of a Project
"Give Me Shelter"
Casco Bay High School
[typing] land, Maine

0:05 / 4:59

Anatomy of a Project: Give Me Shelter
12,071 views

11 0 Download 360 SHARE

edutopia
Published on Apr 7, 2010

SUBSCRIBE 68K

Juniors at Casco Bay High School, in Portland, Maine, explore homelessness by working in teams to make audio slide-show portraits in a semester-long project about housing issues and public policy. To see more inspiring ideas and projects from our Schools That Work series, please visit: [SHOW MORE](#)



Develop skills, not knowledge

(4) Invite guest lecturers

- Guest lecturers can be an incredible asset to a course. They bring outside knowledge and expertise into the class, and can expose students to new perspectives and approaches to business.
- When appropriately timed in the sequence of a course, guest lecturers can provide a time for students to contextualize the knowledge and skills that they have developed.





Develop skills, not knowledge

(5) Go to site visits

- Site visits are educational experiences that allow students to see the reality of businesses as described in cases, have a face-time with the entrepreneur in their own environment, and apply their lessons to the real world.
- These trips tend to be the most memorable moments of a student's career.





Develop skills, not knowledge

(6) Assign non-standard exercises

Teach me



House

Family story

BP Energy Outlook
2016 edition



bp.com/energyoutlook
#BPstats

Invent-the-middle






Develop skills, not knowledge

(7) Borrow teaching methods from different industries and even age groups



Target Audience
Visualization Tool

WHAT DO YOU CALL THIS CUSTOMER GROUP?				
DRAW THEM — OR STICK A 'FOUND' PICTURE HERE 	WHAT ARE THEIR NEEDS?			
	WHAT ARE YOU OFFERING THEM?			
HOW MANY ARE THERE?	HOW MANY OF THOSE WILL YOU REACH?	HOW FRE-QUENTLY?	HOW MUCH WILL THEY PAY?	POTENTIAL TOTAL INCOME?

Reading to Adults



Production Line
Exercise



Develop skills, not knowledge

(8) Use 'analogies'



HOW ARE YOU, DOG?

By Sergey Tantushyan



This is Lolo. He says "I'm Great!" but also he thinks "...and you are not!" (when you're not looking). All Lolo cares about it being right and looking good. He wants to be better than anyone. He actually thinks he's the best! And he feels good when he makes everyone think "My life is bad!". Don't invite dogs like Lolo home. But don't hate Lolo, too. Because... that would be very Lolo of you.






Develop skills, not knowledge

(9) Impose cross-listed classes, a study abroad or a rotation



Sample Two Year Plan for Global Health Majors
Entering 2017-18

	Fall	Winter	Spring
Year 1 – 2017-18	Statistics Reqt. GLBH 148. Global Health & Cultural Diversity Elective Total Units: 12	HILD 30. History of Public Health LD SOCI Course Elective Total Units: 12	GLBH 181. Essentials of Global Health MGT 173. Project Management in the Health Services Elective Total Units: 12
Year 2 – 2018-19	Policy Analysis Reqt. Elective Elective Total Units: 12	GLBH 150A. Senior Capstone I Elective Elective Total Units:	My Courses ▾  ART 1023-04 Intro to Drawing 04 View All Courses

*Field Experience must be completed by the end of Fall of your senior year.
Global Health Field Experience (GHFE) – 100 hours with approved placement

Lower Division Core (3): HILD 30, Statistics, LD SOCI
*Statistics courses are typically offered every quarter.
Electives (8 total for major)



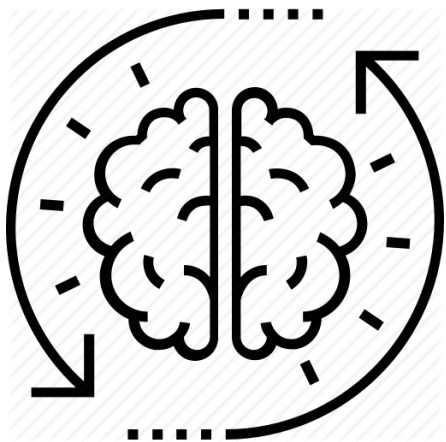


Develop skills, not knowledge (10) Build connections.

What's out there that will make connections between this body of information that instructors say is important and their own lives?"*



*[Playful Inquiry for Elementary Students](#) Six suggestions for bringing a key idea from a Reggio Emilia–inspired school to your K–5 classroom. By [Suzie Boss](#) August 11, 2017



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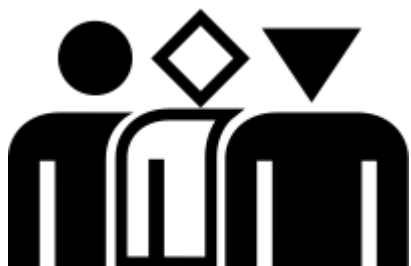
Cool-ify
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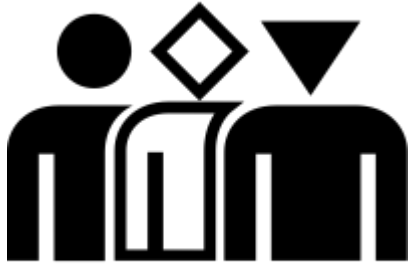
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Students learn **differently** while the evaluation mechanisms remain standardized, demotivating study in the first place.

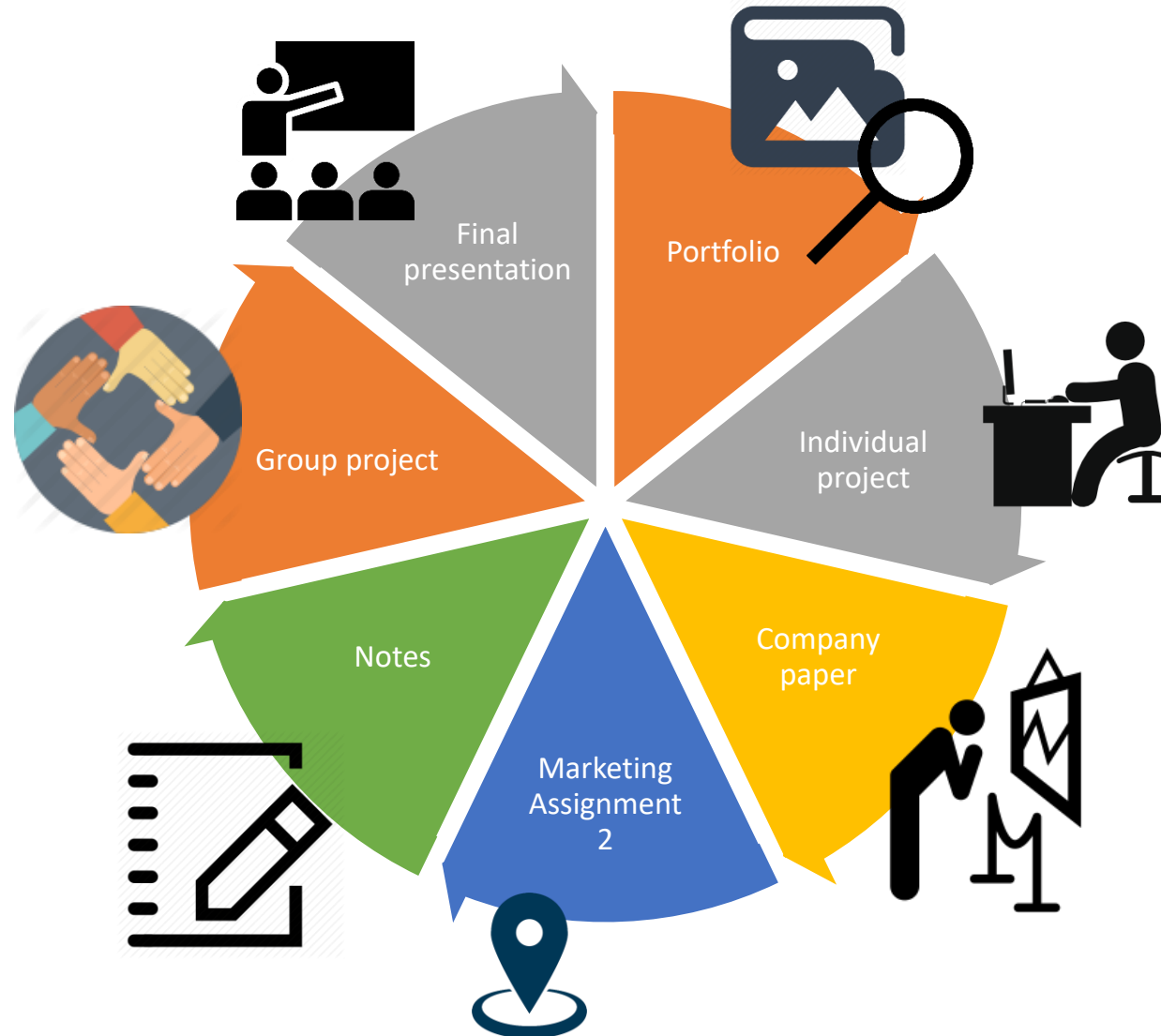


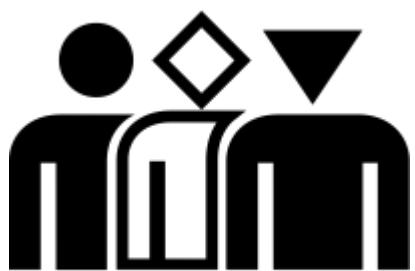
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to demotivate



Evaluate to encourage, not to demotivate

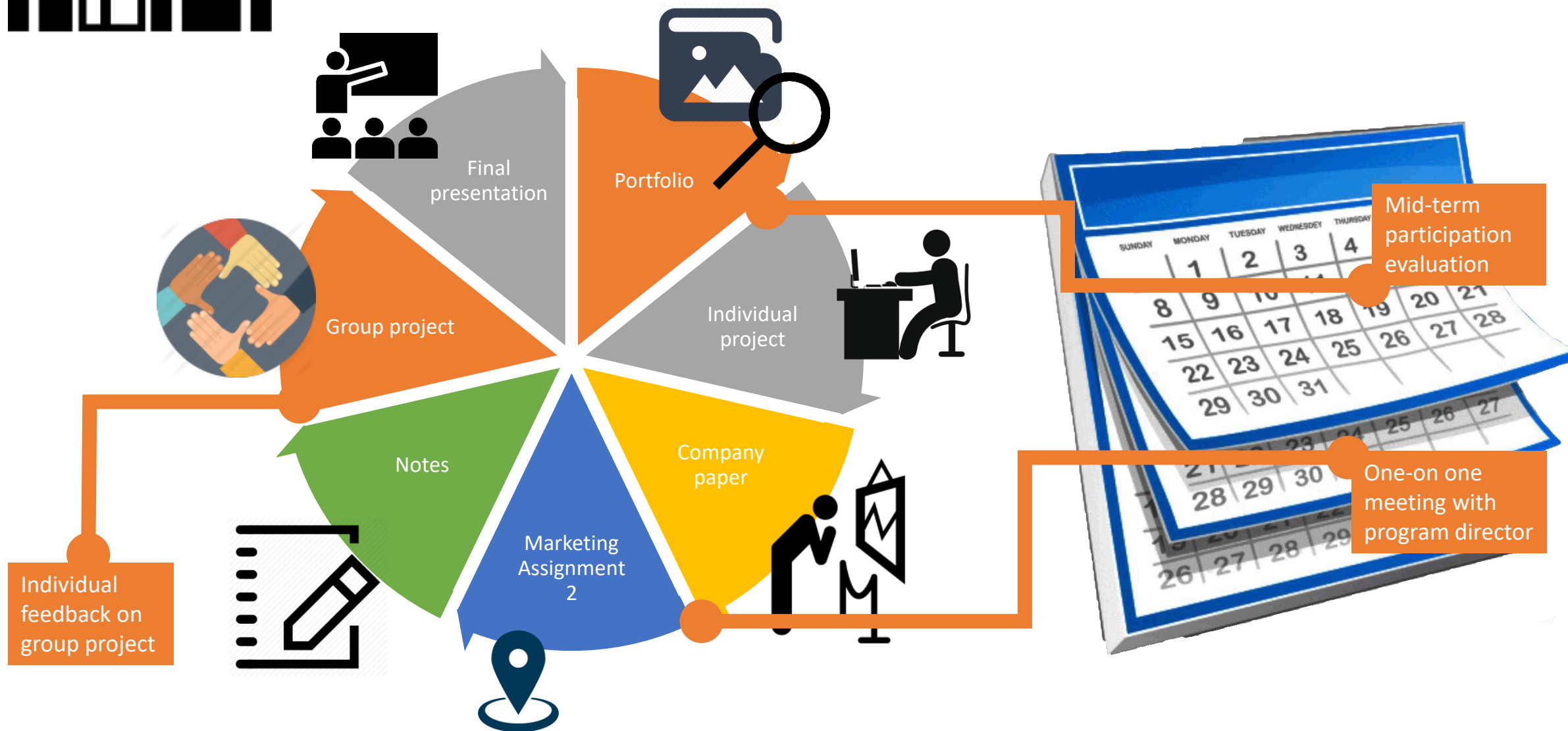
(1) Divide tasks into smaller chunks





Evaluate to encourage, not to demotivate

(2) Provide milestone feedback





AUA

Evaluate to encourage, not to demotivate
(3) Create inspiring environments



PicsArt



TÜMO



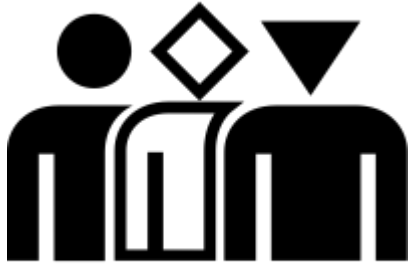
UWC



McGill



AYB School



Evaluate to encourage, not to demotivate
(5) Have tailored definition of success.





Teaching &
Research



Service to
University



Student
Advising

9

Masters programs

4

Undergraduate programs



American University of Armenia

EXTENSION



Student
Success
Center







12 – 16 y.o.



Coached
Self-learning



Throughout
Armenia



CENTER FOR CREATIVE TECHNOLOGIES





Ayb

Educational Foundation



7 – 18 y.o.



Values first



Personality vs.
knowledge



Positivity and
empowerment



Physical environment



Evaluation system to
encourage



Հայաստան
բակալավրիատ



Developing the
educational system





16-18 y.o.



International
Baccalaureate



Inquiry-based
learning



Boarding
(students and
instructors)



120 students of
83 nationalities



3 mandatory
languages



Focus on
communication

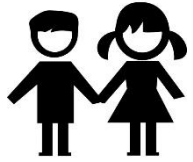


3 CAS Projects +
reflection paper



Coaching from industry
professionals





4 – 14 y.o.



Edutainment
concept



23
professions



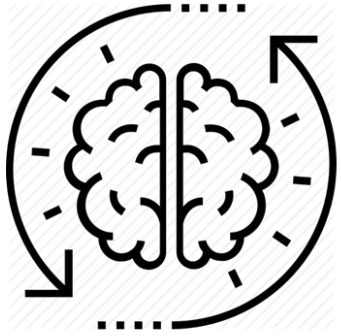
Focus on good
citizenry



Workshops
and events



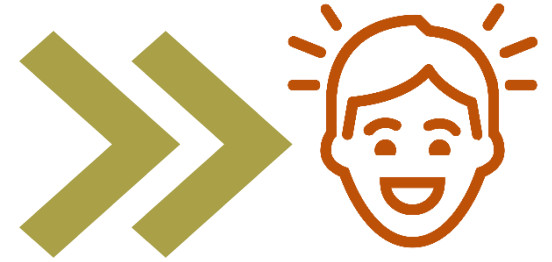




Problem #1:
Learners enter educational process with a 'limited-buy-in' **mindset**, have a short attention span, yet teachers in most educational institutions still are "talking heads".



Cool-ify
education



Problem #2:
We educate children to be successful in **future**, based on our past experiences.



Develop skills and
competencies,
not knowledge



Problem #3:
Students learn **differently** while the evaluation mechanisms remain standardized, demotivating study in the first place.



Evaluate to
encourage, not
to demotivate

