

# How emotionally (il)literate are you and your students and why does it matter?

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By the end of this workshop you will be better able to:

- Critically consider what being emotionally literate in a STEMMB university context means.
  - Identify emotional experiences that you'd like to understand/regulate and why.
  - Identify opportunities to develop your students' and your emotional literacy.
  - Use tools to initiate reflection and conversation about emotion in learning.
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Consider a session you have attended at the Festival of Learning and teaching so far (or a recent training or teaching session). **How did it make you feel?**

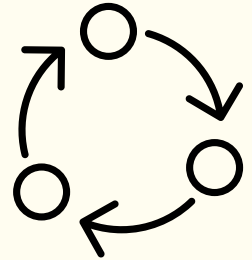
**Why do you think you felt this way?**



# What is emotion? Theoretical framing

**Emotions are constructed** based on physiological sensations, social context, experience.

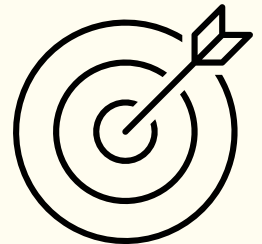
Refined through continual prediction and feedback loops (Lindquist & Barrett, 2008; Barrett, 2017).



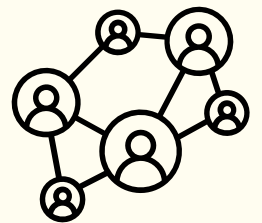
**Emotions are goal-based**

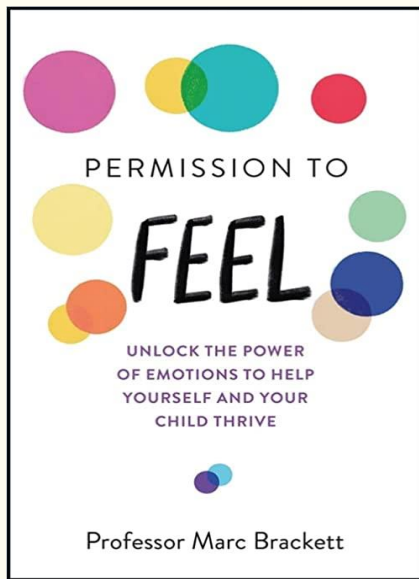
Control–Value Theory of Achievement Emotion (Pekrun & Perry, 2014)

Performance and mastery orientation goals, identity goals.



**Emotions are social**, a form of communication and influence (Parkinson, 2020), source of information (Van Kleef and Cote, 2022).





# What is emotional literacy?

‘The ability to appraise and regulate emotions in oneself and others and use emotions to guide thinking and solve problems.’

Salovey and Mayer (1990)

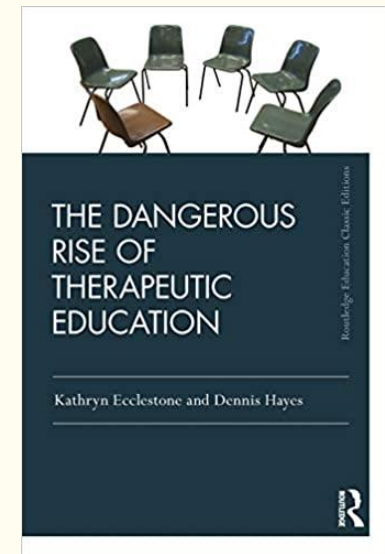
## **RULER** - A tool for becoming emotionally literate

Prof Marc Brackett, Yale

- **R**ecognising the occurrence of an emotion
- **U**nderstanding the causes and consequences of an emotion
- **L**abelling – with accurate and nuanced vocabulary
- **E**xpressing – knowing how and when to display our emotions
- **R**egulating – using strategies to monitor and modify emotional reactions to reach goals (Brackett, 2019: 55)

- Cartesian dualism. Scientific endeavour and Learning science as rational and objective.
- Stereotypes and contradictions  
“We’re not emotional, we’re engineers!”  
“I don’t want to be influenced by emotions!” (Lonngren, Adawi & Berge, 2020)
- Risk of positioning all students as vulnerable

**Goal:** for students and teaching staff to integrate learning about how to **R**ecognise, **U**nderstand, **L**abel, **E**xpress and **R**egulate emotion as part of day to day interactions.



# Why is emotion important in STEMMB learning and teaching?

- Emotions inform thinking and decision-making
- Memories of past emotional experiences and feelings are integrated into cognitive circuits for deciding the best behaviour in a particular situation

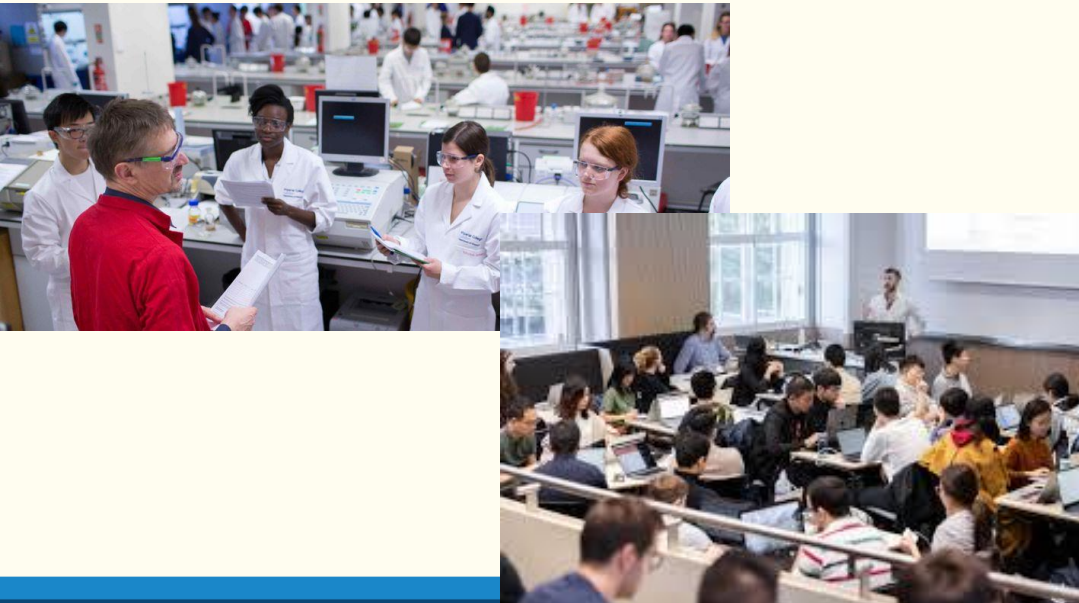
Immordino-Yang and Damasio (2015)

- Our graduates should have well-developed [affective attributes](#):
  - ability to approach challenges with curiosity, flexibility, critical thinking, creativity,
  - become independent learners with high self-efficacy and emotional resilience.

# Recognising and Understanding

## Small group discussion

- Identify examples of emotional experiences in your teaching and learning context.
- How would more emotional literacy help in this context?





## Situation (in learning)

- Complexity of laboratory dynamics, failure, multitasking, collaboration
  - Group work
  - Transition
  - Communication/language
  - Assessment
  - Complex content
  - Competitive environment
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Asked about emotions experienced in the lab students were able to explain the emotion and its cause

**“Confusion, anger, sadness,** I assume it's **because it's such a new environment** that even with the guidance provided, it's hard to get a head start into the protocols, into the techniques...” (Rachel)

**“Stress** is definitely a big one...**because we didn't have enough time...** when we had just lost our samples, my partner and I, were really stressed and honestly, I didn't know what we could do after that point, because we had a lot to get through” (Valerie)

**“I would feel stressed... afraid** to complete this task... [because] **I have this responsibility I know I am one of the team...**” (Shyla)

# Recognising and Understanding emotion in learning

Used as plenary at end of teaching session.

Write down...

- 3 things you've learned,
  - 2 things you've enjoyed**
  - 1 question you still have
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### Group conflict mediation

A student complained about the lack of contribution of one team member.

I suggested a group meeting and offered to mediate if necessary. The situation was emotionally charged but nobody talked about feelings. When I asked to share how her unheard requests to team members made her feel she said she felt **stressed**, I asked if she was sure about it and if it was not more a feeling of **frustration**. She looked surprised and agreed, and said yes I am frustrated.

- **Definitions**
- Frustration: the feeling of being upset or [annoyed](#) as a result of being unable to change or achieve something
- Stress: a state of mental or emotional strain or tension resulting from adverse or demanding circumstances.

# MOOD METER

How are you feeling?



# Which emotions are helpful for learning and why?

		Emotional Valence	
		Positive (Pleasant)	Negative (Unpleasant)
Activation of Learning	Activating		
	Deactivating		

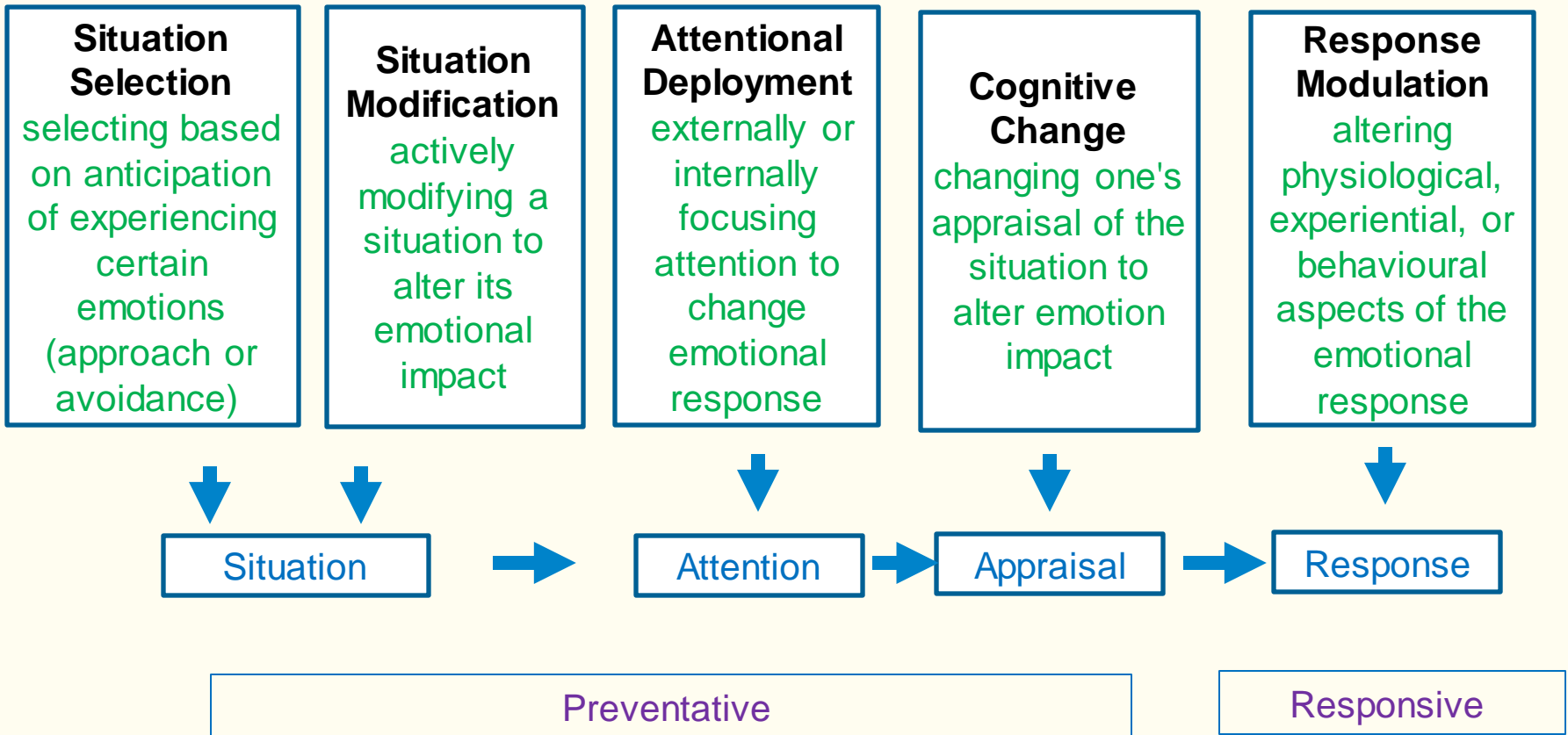
Hope  
 Shame  
 Anger  
 Pride  
 Anxiety  
 Relief  
 Hopelessness  
 Boredom  
 Frustration  
 Enjoyment  
 Surprise  
 Curiosity  
 Confusion

In groups consider how can you build opportunities for

Recognising and  
Understanding  
Labelling

emotion into your practice?





(Based on Gross, 2015)



# How do Imperial students use cognitive change strategy?

**Balancing goals:** “I think it is a balance between aiming for a good grade and just having fun with the project. Therefore, I feel under a lot of pressure, but am able to cope due to the fact that I know this is a simulation of real life... I just cope with it.”

**Difficulty in reframing mistakes as learning:** “My somewhat idiotic behaviour is the reason why I keep doing the occasional thing wrong so I contribute mainly to the stress”

**Interpersonal emotional regulation:** “I can also reassure other students that I don't feel confident in statistics or coding, and that everyone is learning at their own pace.”

# How do Imperial teachers use cognitive change strategy?

"I try and give them a lot of analogies around learning programming... you know, if you were to learn a language from scratch, what would your expectations of yourself be? ...if you relate it to something that's not STEM and not science"

"If you point out to them, 'would you judge someone who's struggling with something? Well do you talk to your peers?' 'I don't, because I'm scared they will judge me.' If you point out to them if the situation was reversed, would you judge your peers and they will go "well, no, of course not." "So why do you assume that they will be judging you?"

"I had third years complaining at me, it's like, "oh, but last year, the spring term was the worst term of my life because Design..." "How much time did you actually work on it? Did you start really sort of towards the end of term?" "Well, yeah." "So?"

**Cognitive Change** - changing one's appraisal of the situation to alter emotion impact

- In what situations and how could you, as teachers, use this strategy?
  - What are the limitations and challenges with this approach / perspective?
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- Emotion can be understood as goal-based, socially constructed, informative and can be regulated.
  - Emotion is central to motivation, thinking and problem-solving in STEM education and professional practice.
  - RULER is a useful tool for consciously developing emotional literacy in university students and teachers.
  - Students and teachers develop emotional literacy together, through interacting and recognising the social and educational value of their emotions.
  - We encourage more deliberate reflection and conversation on the role of emotion in learning and teaching at Imperial.
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Next **Emotions in STEM Education Special Interest Group (SIG)** session

- **Monday 3 June 12.00 - 13.30 SALC 10**

**Mental Health Awareness Week 2024 workshop:**

**Ups, downs and wellbeing: Emotion regulation in university teaching and learning**

- Opportunity to critically explore the value of emotional variety in learning and teaching and strategies for emotion regulation to support achievement and wellbeing.

**Wednesday 15 May 2024 12.30-14.00 (in person).**

- [Workshops | Staff | Imperial College London](#)