The Brain Behind The Room

Neuroscience Secrets for Smarter Facilitation

Hi, I'm Dee Scarano 👋

Agenda

Neuroscience Secrets for Facilitators

Why Participants Disengage

Or *do* they?

Activating The Creative Zone

How to activate ‘the zone’ on demand

Applying Psychological Safety

How (and when) to apply specific methods

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The Neuroscience Of

Why Participants Disengage

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Terminology

Neurotransmitters

Chemical messengers that pass information around our brain and nervous system.

They influence functions ranging from movement and sensations to emotions and thoughts.

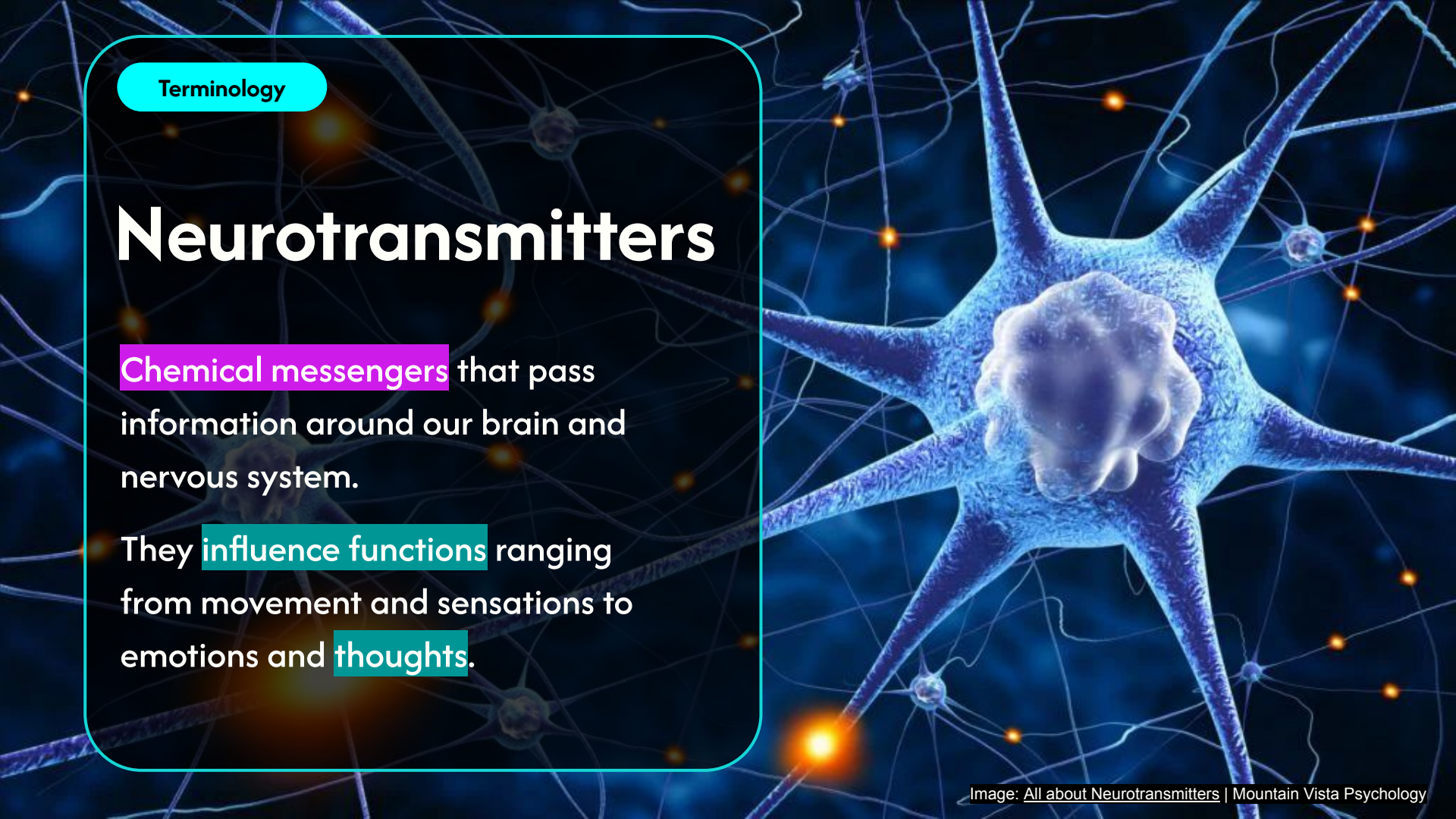
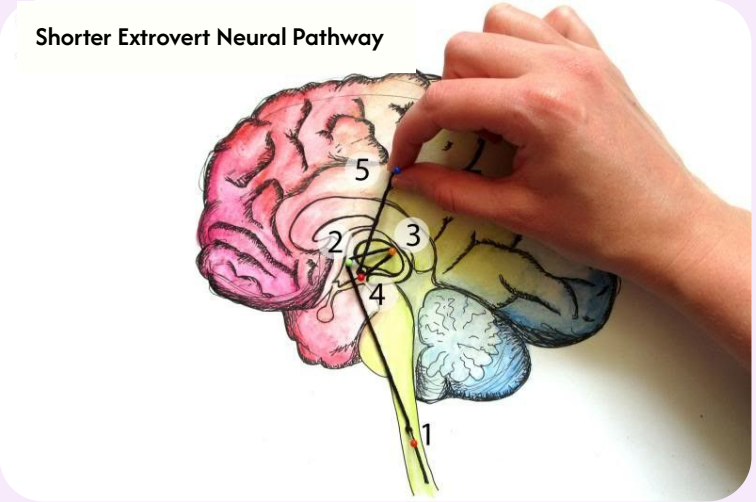
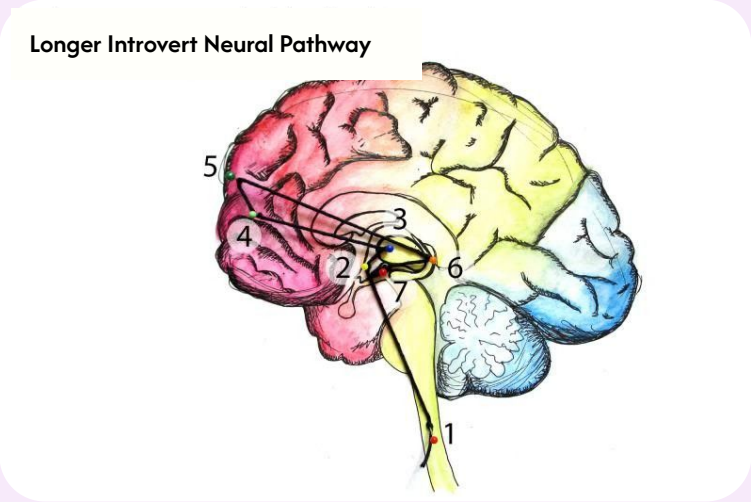


Image: All about Neurotransmitters | Mountain Vista Psychology

Internal vs External





"Speed of thinking is influenced by which pathway is more dominant; dopamine facilitates faster, reward-focused thinking, and acetylcholine supports slower, deeper internal reflection."

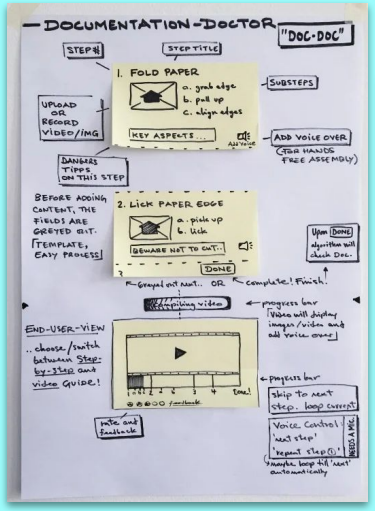
Introverts and Extroverts: The Brain Chemistry Behind Their Differences | Therapy Changes

Practical Application

Alternatives for Thinking Fast or Slow

Design activities with intention - to support fast ideas or slower, deeper thinking.

E.g. Critical Solution Sketch Activity



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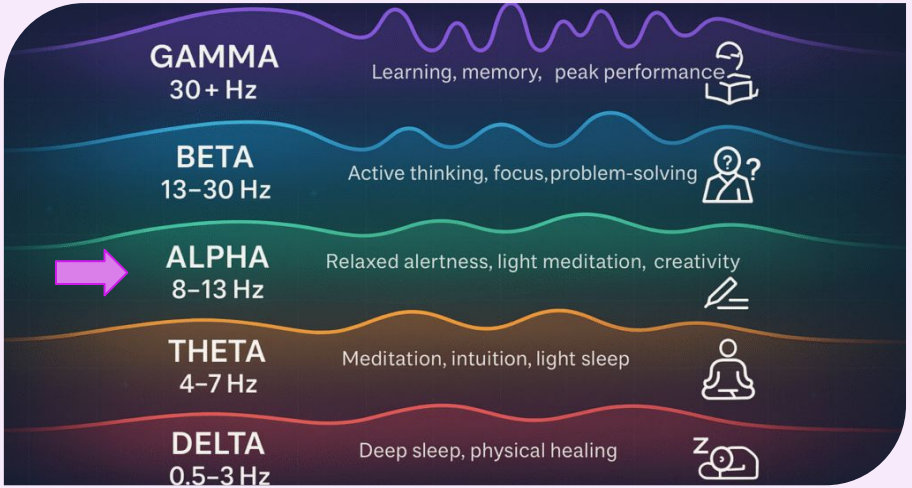
Alpha Brainwaves

The Creativity Brainwaves



Alpha waves are prominent during **wakeful relaxation** and are associated with states of relaxation, present-moment awareness, and **internal creativity**.

Real-Time Brain Feedback Reveals the DMN's Role in Creativity and Idea Formation | Premier Science
The Role of the Default Mode Network in Daydreaming and Creativity | Neuroba

The **Default Mode Network**

The Neural Network of Creativity

"The DMN becomes active when the brain is **not engaged in external tasks** and switches to **internal mind-wandering** thoughts like memories, self-reflection & imagination

“Creativity”

=

Creative Ideas + Problem Solving

(Idea Generation) + (Idea Evaluation)

Idea Generation

“Involves delving deep **into our existing knowledge** for the seeds of inspiration.

Perhaps by drawing connections from completely **different domains**.”

Idea Evaluation

“Applies a more critical eye to **choose ideas** that will best **suit our goals**.”

Neural-network brain scans are revealing how to boost your creativity | NewScientist

Practical Application | Creative Zone

1.
Priming

Pre-load the ideal conditions for creativity *before* the stakes are high.

- Internal reflection
- Mind wandering
- Imagination

Quiet Reflection
E.g. Solo thinking and internal reflection without a problem-solving goal

Journaling
E.g. Free association of whatever comes to mind based on a simple prompt

Practical Application | Creative Zone

2.
Presencing / Mindfulness

Use short activities to enable "Emptiness" and activate Alpha Waves and the DMN

10-min solo walk
Focus on nature & senses (present moment)

Guided mindfulness
E.g. 3-min presencing exercise

Practical Application | Creative Zone

3.
Separate each Activity
(and use scaffolding)

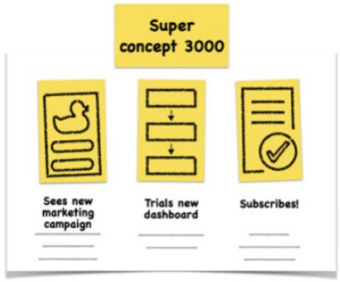
Design your agenda with intention to support each neural process, and build into the zone.

E.g. From the Design Sprint

Crazy Eights

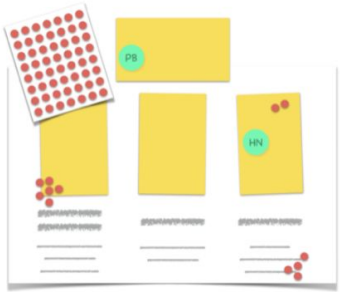
Imagination
Default Mode Network

Solution Sketch



Focus, refining ideas
Dorsal Attention Network

Voting



Decision Making
Executive Attention Network

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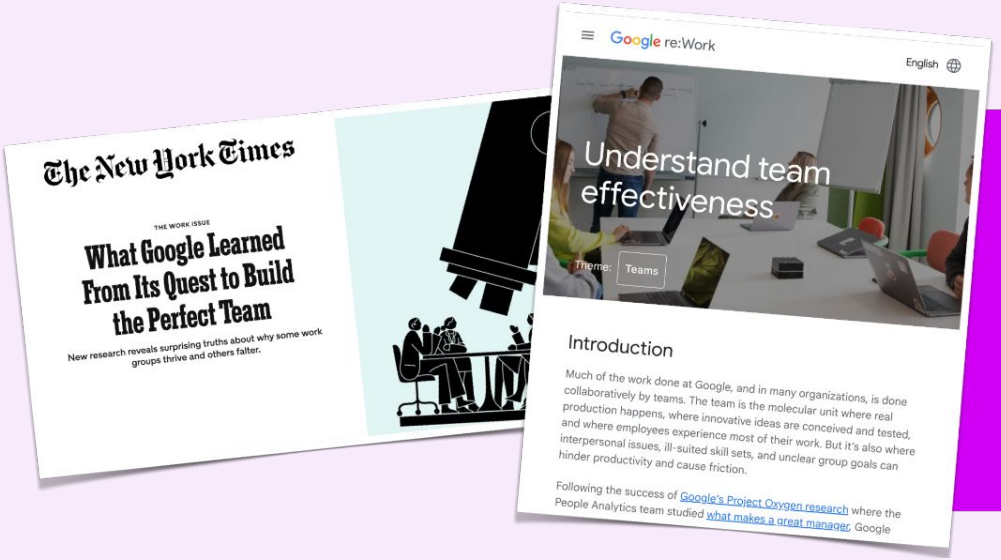
Psychological Safety

"**Feeling safe** in a group to **take risks or speak up** with ideas, questions, concerns, or mistakes **without fear** of being judged or punished.

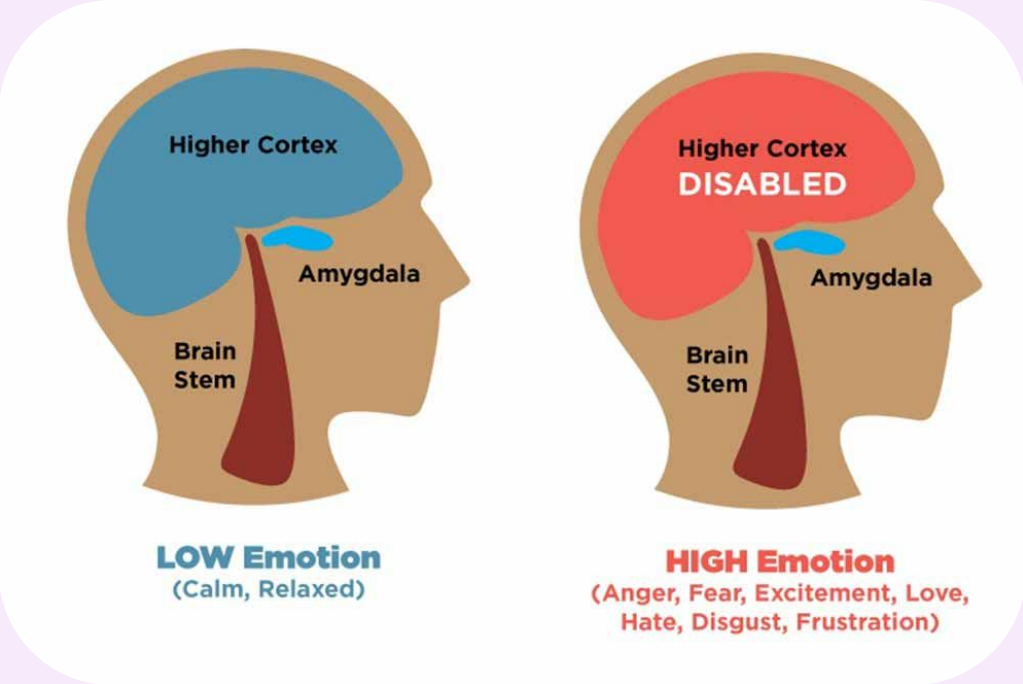


Google study 2012: *"The single most critical factor in team success"*

- 🚀 20% Faster project success
- 🚀 31% More innovation
- 🚀 360% Job satisfaction

https://psychsafety.com/about-psychological-safety/
https://rework.withgoogle.com/en/guides/understanding-team-effectiveness#introduction
https://www.nytimes.com/2016/02/28/magazine/what-google-learned-from-its-quest-to-build-the-perfect-team.html#

Fight or Flight?



Psychological safety minimizes amygdala-driven threat responses, enabling higher cognitive function, creativity, and collaboration by fostering a secure, non-threatening environment.

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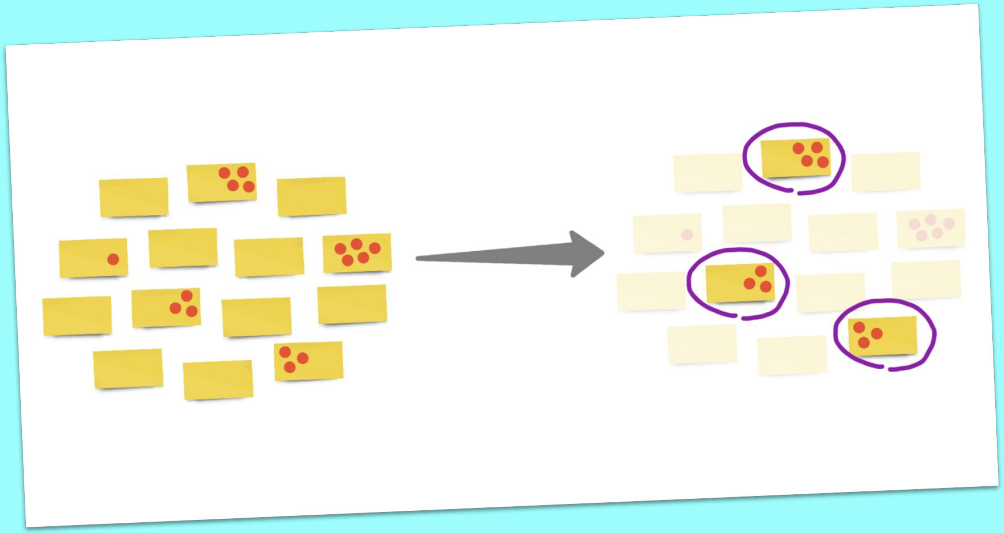
Practical Application | Psychological Safety

1.
Use Together / Alone Methods

- Everyone's opinions are heard
- No-one person dominates
- Subjective opinions → become measurable group decision
- No criticism! (only up-votes)

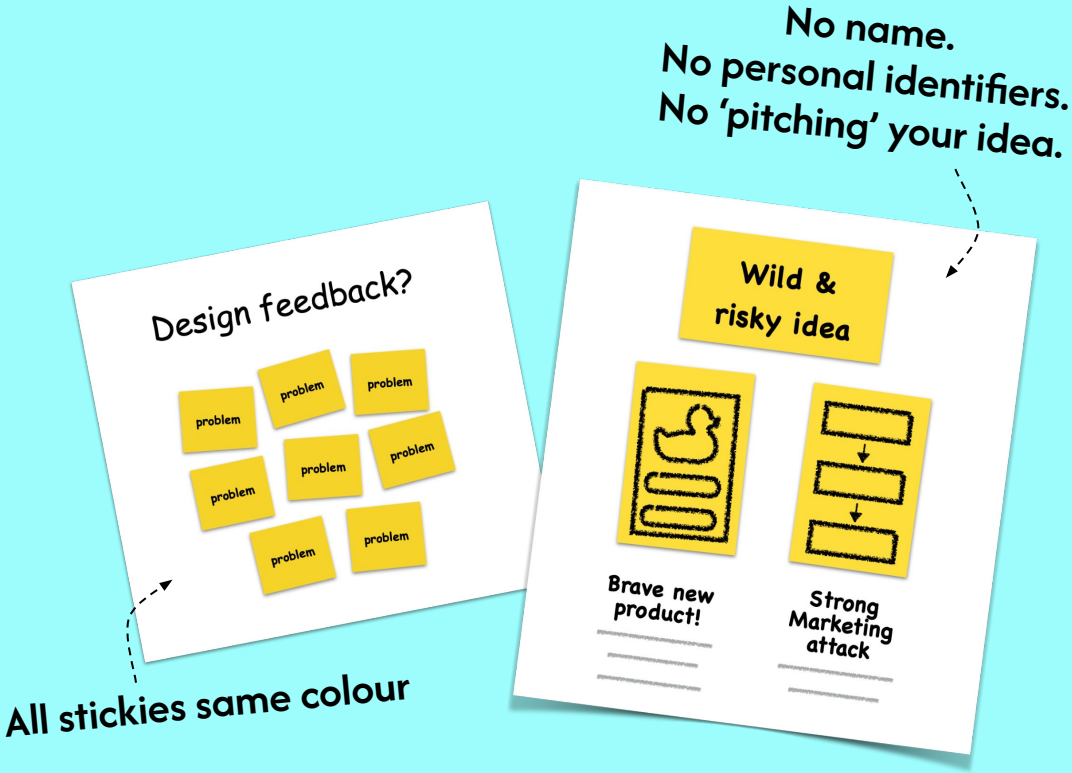
E.g. Note & Vote instead of an unstructured debate



Practical Application | Psychological Safety

2.
Anonymous input

- Ideas are assessed, not people
- When fear of judgement is removed input becomes more honest, more ambitious, and more creative.



Practical Application | Psychological Safety

3.
Standardized formats / templates

- Reduces unnecessary mental load
- Avoids "blank page" anxiety
- Levels the field. Participants don't feel overshadowed.

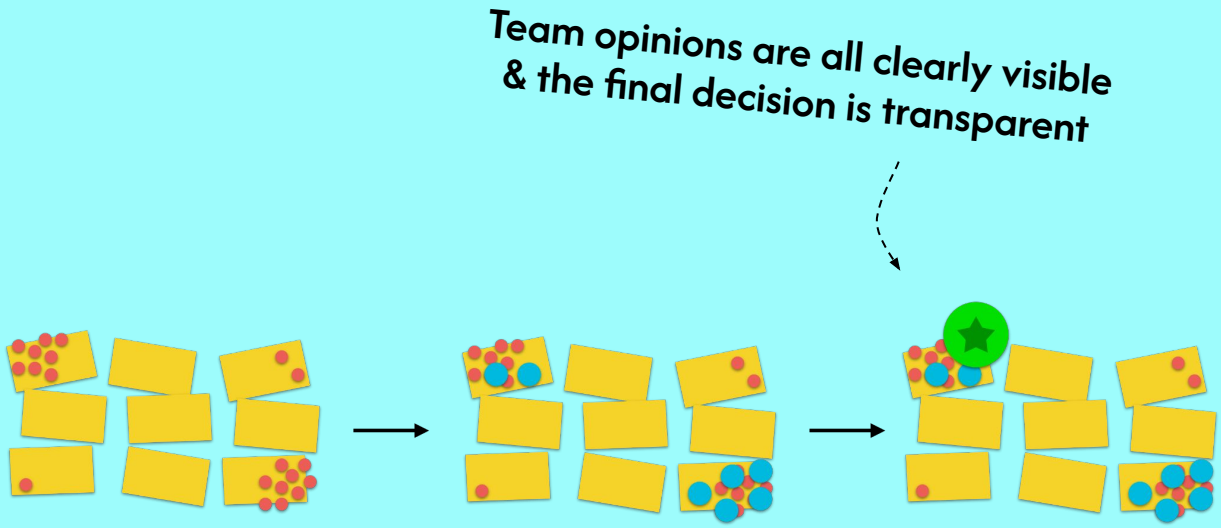
All contributions follow the same layout (e.g. drawing ability is not judged)

E.g. follow the formula for 'Design Critique' (no unhelpful comments)

Practical Application | Psychological Safety

3.
Scaffolding
e.g. with voting

- Layers of voting to support decision making.
- Everyone's voice is visible.
- Decisions are transparent.



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Let’s Talk Activities!

How do you design your exercises with intention?

Scaffolding to build to a peak moment?

Priming before creative exercises?

Alternatives for fast (external) and slow (internal) thinkers?

Templates vs free-form?

Anonymous vs not?

Add me on LinkedIn :)

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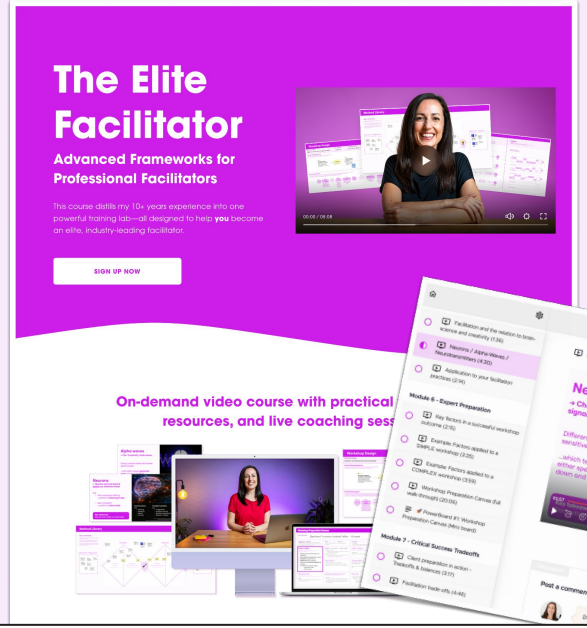
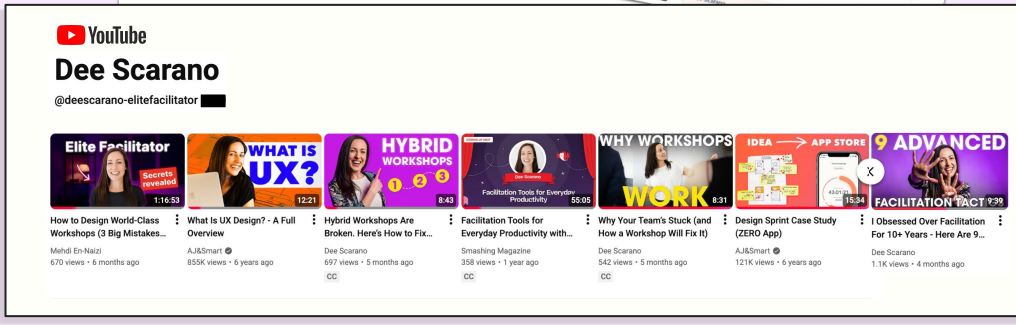
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