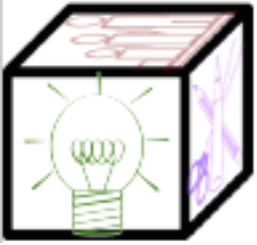


IDEATION

Create and evaluate
promising ideas

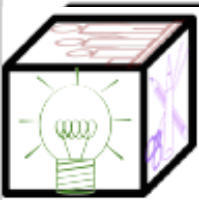
dr hab. Laurent Babout

Institute of Applied Computer
Science, TUL

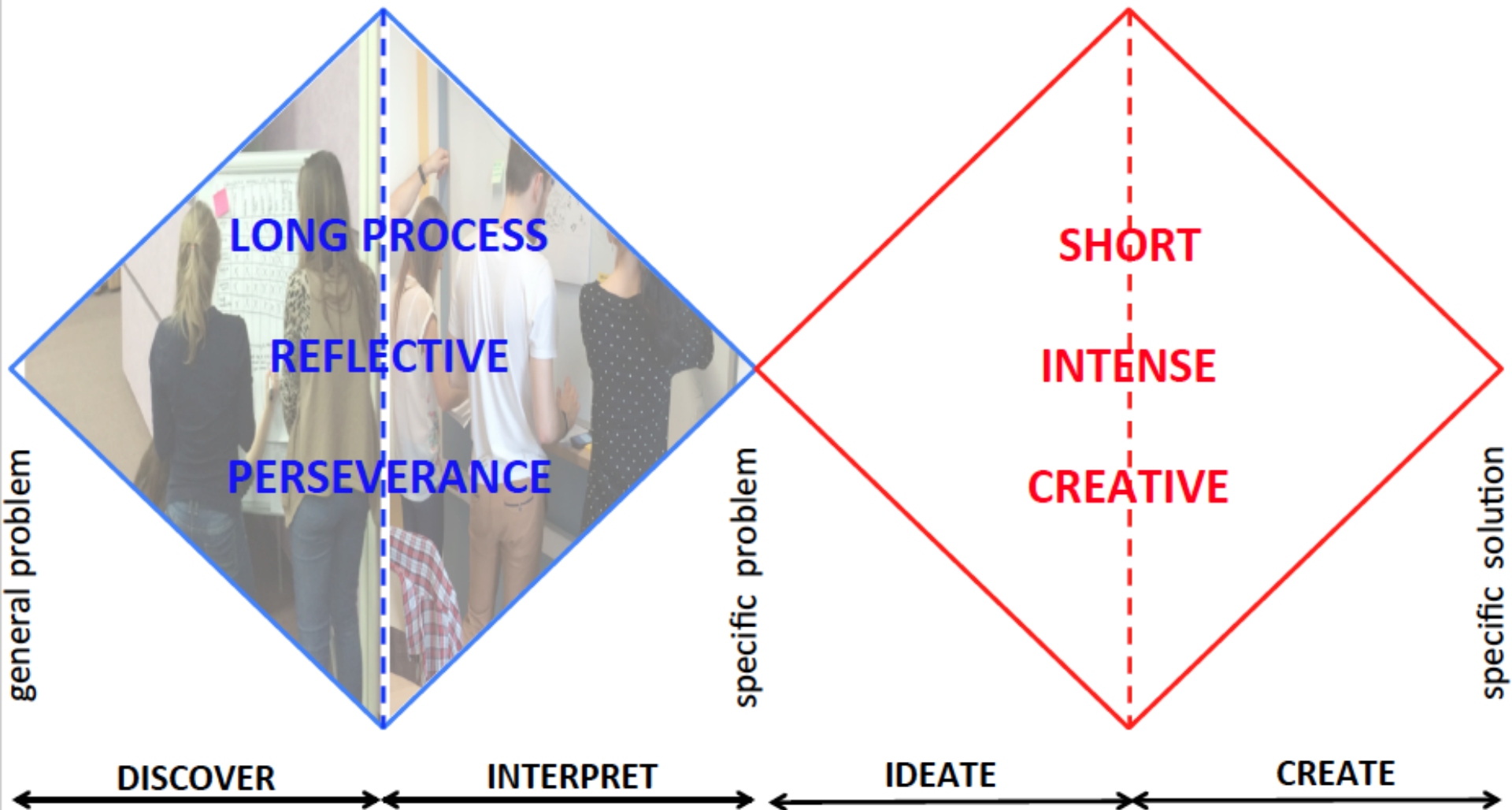


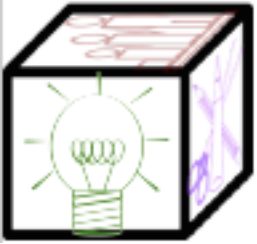
Step 3: Ideate

- The main objectives are to:
 - Create HMW
 - practice brainstorming to get as many ideas as possible following different BS models
 - select best ideas (by simply voting, or even better, using the 2x2 Comparison)



CHANGE THE MODE...

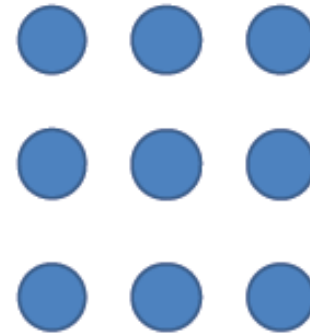


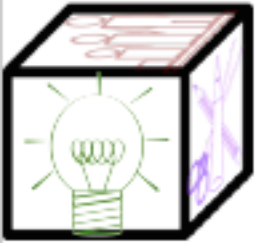


The Line Game Rules

- Draw 4 straight lines through all 9 dots.
- All lines must be connected.

The Line Game



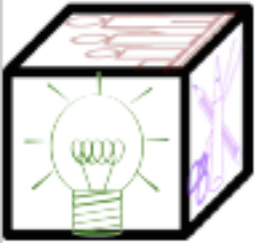


NEW Rules

- Draw 3 straight lines through all 9 dots.
- All lines must be connected.

The Line Game





Ok, NEW Rules Again

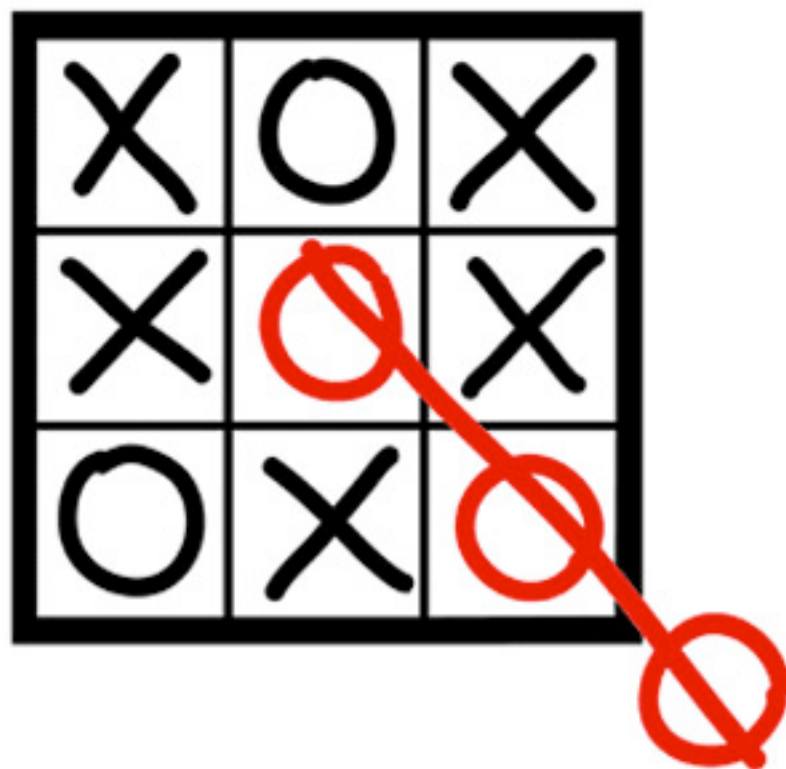
- Draw 1 straight lines through all 9 dots.
- All lines must be connected.

The Line Game





**THINK
OUTSIDE
THE BOX**

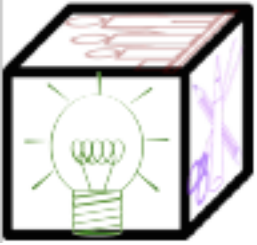




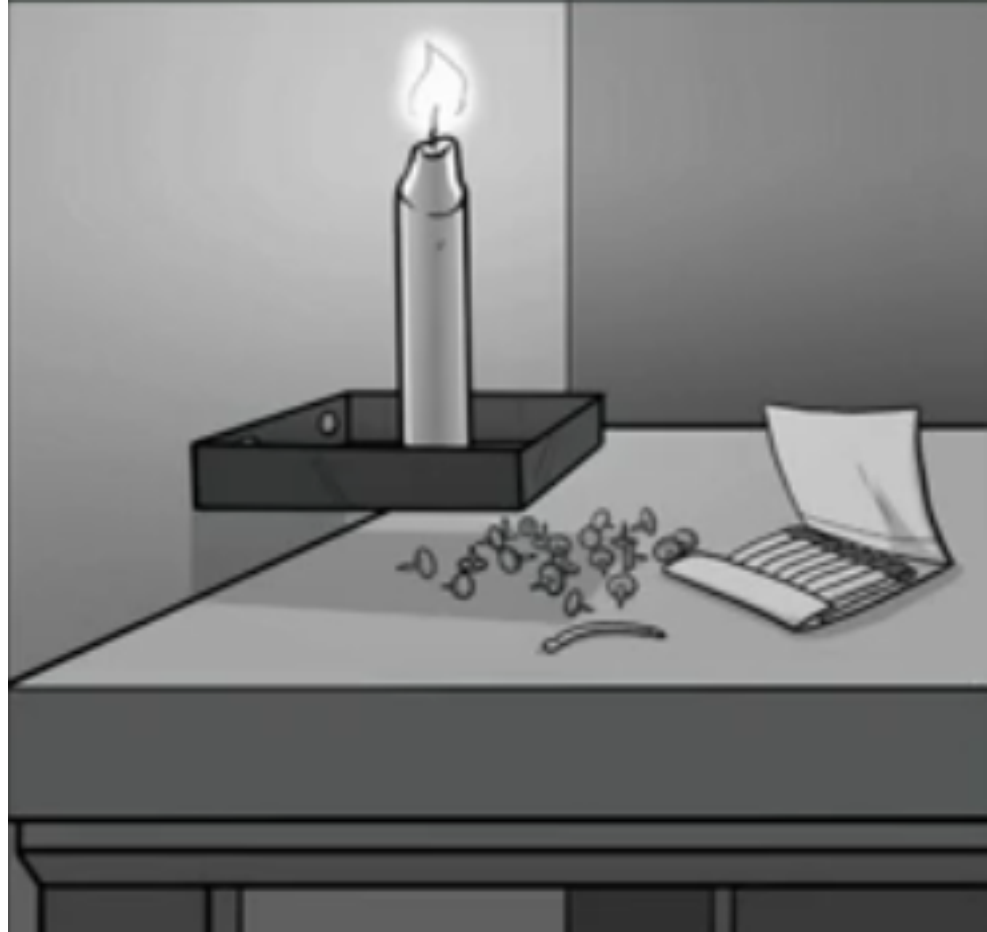
The candle problem

- how to fix and light a candle on a wall (a cork board) in a way so the candle wax won't drip onto the table below.
To do so, one may only use the following along with the candle:
 - a book of matches
 - a box of thumbtacks





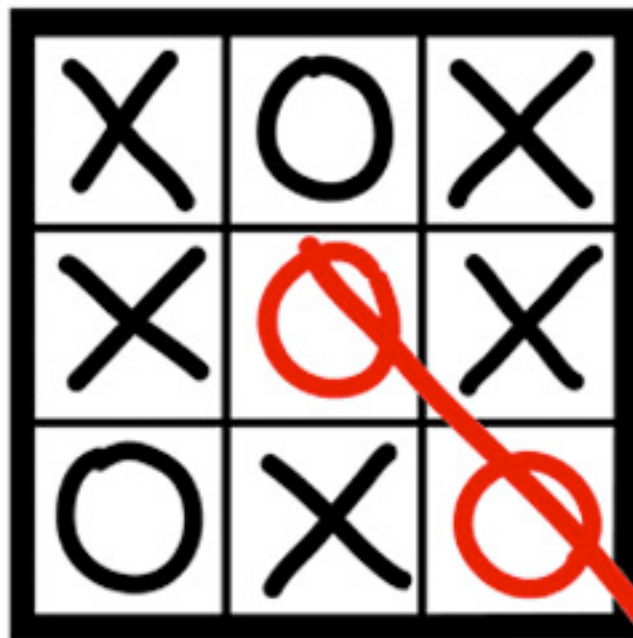
The solution



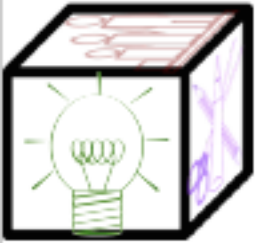
We are naturally blocked by functional fixedness, i.e. “A cognitive bias that limits a person to using an object only in the way it is traditionally used”(Karl Duncker 1945)



THINK OUTSIDE THE BOX



TWICE!!



Brainstorming

- Popular method individual/group activity to generate ideas and come up with creative solutions to problems
- Most of the time people classify simple “round table” (may be intense) discussion as brainstorming
- Brainstorming is more than that!
 - it needs a focus (your HMW)
 - it is limited in time
 - it has specific rules and principles to stick to



Get ready for brainstorming session

- Facilitator ☒
- Post-its ☒
- Candies ☒
- An alarm clock and a bell ! ☒
- Warm-up session ☒
- Guests ☒
- A focus



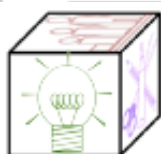
www.PO2H2W.dt

- POV: framework for **How Might We** question
- Create small actionable questions
 - can focus on needs, or insight
- HMW should be not too broad nor too narrow
- Consider following aspects
 - break POV into pieces
 - amplify good aspects
 - remove the bad
 - change a statu quo
 - create analogy from need or context of insight



Example

- **POV:** A VIP with extreme self-esteem and irrational judgement needs to feel the necessity to change his negative thoughts about recycling because group conformity coupled with lobbying strongly pollutes objective reasoning
- **Break POV:** HMW change his strong self-confidence? HMW change his negative thoughts about recycling? HMW reduce group conformity?
- **Change a statu quo:** HMW challenge his ego thanks to recycling?
- **Remove the bad:** HMW remove the mates' negative lobbying influence?
- **Create analogy:** How might a recycling company change his negative posture about recycling?

**10 min**

1. Generate How Might We question

The previous step, *interpret*, aimed, among other things, at revealing insights and your POV. You can use them now, to create your How Might We question that will serve as focus point for your brainstorming ideation sessions.

Team activity/Practiced during DT course – repeated alone (check by Mentor)

1- Write your challenge / project title

2- Write your POV

3- Brainstorm HMW question considering following exploring suggestions: (see also dschool card)

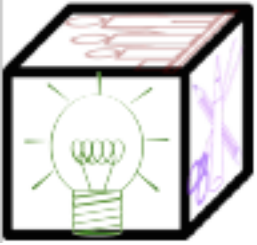
- | | | |
|---|--|---|
| <input type="checkbox"/> Play POV against challenge | <input type="checkbox"/> Break POV into pieces | <input type="checkbox"/> Amplify good aspects |
| <input type="checkbox"/> Isolate bad inputs | <input type="checkbox"/> Create analogy from need or context | <input type="checkbox"/> Explore the opposite |



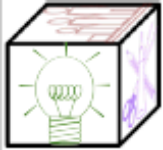


The 7 IDEO's rule for good brainstorming session:

1. **Defer judgment:** nobody should critic other ideas, since there are no bad ideas at that time
2. **Encourage wild ideas:** a bit of craziness may also hide a great component of a future product. In line with condition 1
3. **Build on the ideas of others:** think “and” rather than “but”
4. **Stay focus on topic:** thinking wild does not mean that you propose things completely out of scope
5. **One discussion at a time:** you need to hear what the others say. Key thing if you want to satisfy rule 3!
6. **Be visual:** sometimes drawing better reflects things than words!
7. **Go for quantity:** a good idea usually comes out of a lots of ideas. So set a threshold and try to surpass it!



LET'S EXPERIENCE DIFFERENT WAYS TO STIMULATE BRAINSTORMING



3. ...And do it

Equip people with markers and post-its and try to get as much idea as possible during brainstorming session.

Change rules of the brainstorming to explore different ideation avenues

(e.g. "Yes, and..." ideas, constrained ideas, analogical ideas)

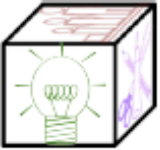
Team activity/ Practiced during TB&CS - done during meeting with mentor (the mentor will play the role of the facilitator) / Use post-its

HMW question:

HMW change DT's negative thoughts about recycling?

"Yes, and..." session: when someone proposes new idea, build on it to give volume using "YES AND...".

FIX THIS CARD ON YOUR WHITE BOARD



3. ...again (Constraint ideas)

Constraint your ideas with specific, even weird criteria (e.g. only very expensive ideas, ideas that will make angry your boss, ideas that need magic or to live in a parallel world to come true). Doing so, you encourage yourself to think of crazy ideas.

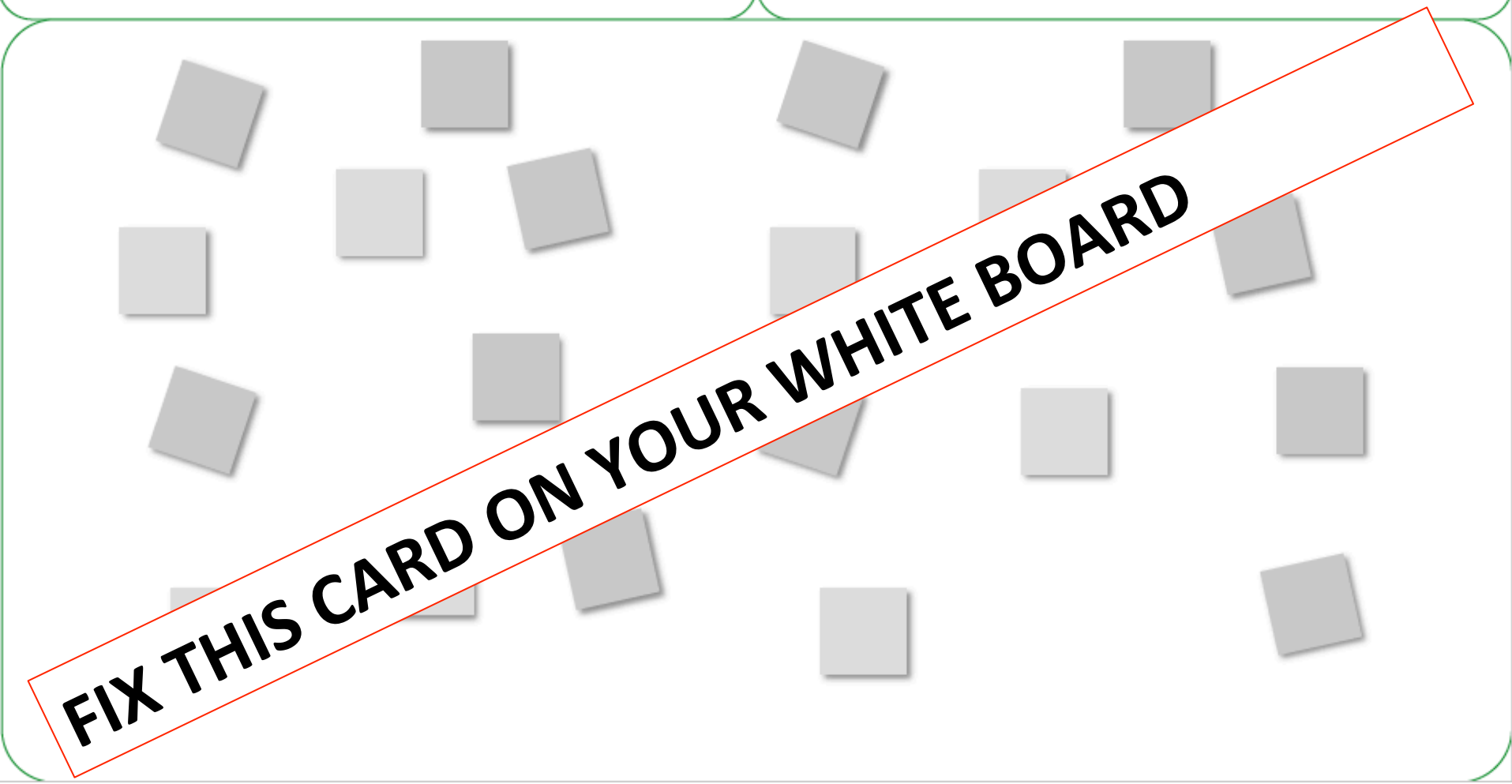
Team activity/ Practiced during TB&CS - done during meeting with mentor / Use post-its

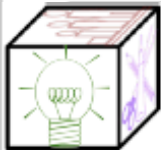
HMW question:

HMW change DT's negative thoughts about recycling?

Your three constraints:

1. Ideas worth at least 1Million PLN
2. Ideas that will make you unpopular
3. Ideas that involve magic/fantasy





3. ...and again (analogical ideas)

Think of analogical people/places that you could get inspiration from to generate new ideas. First, think of a typical emotion related to you HMW, then how this emotion could be conveyed to your end-user in these analogous situations.

Team activity/ Practiced during TB&CS - done during meeting with mentor / Use post-its

What emotion are we trying to evoke?

hope, faith

What/where/who does that well?

- 1.
- 2.
- 3.
- 4.

Analogous HMX question: reformulate your HMW using the template below, so as it considers the analogous situation, Use post-its of different color for different analogous situations

HOW MIGHT

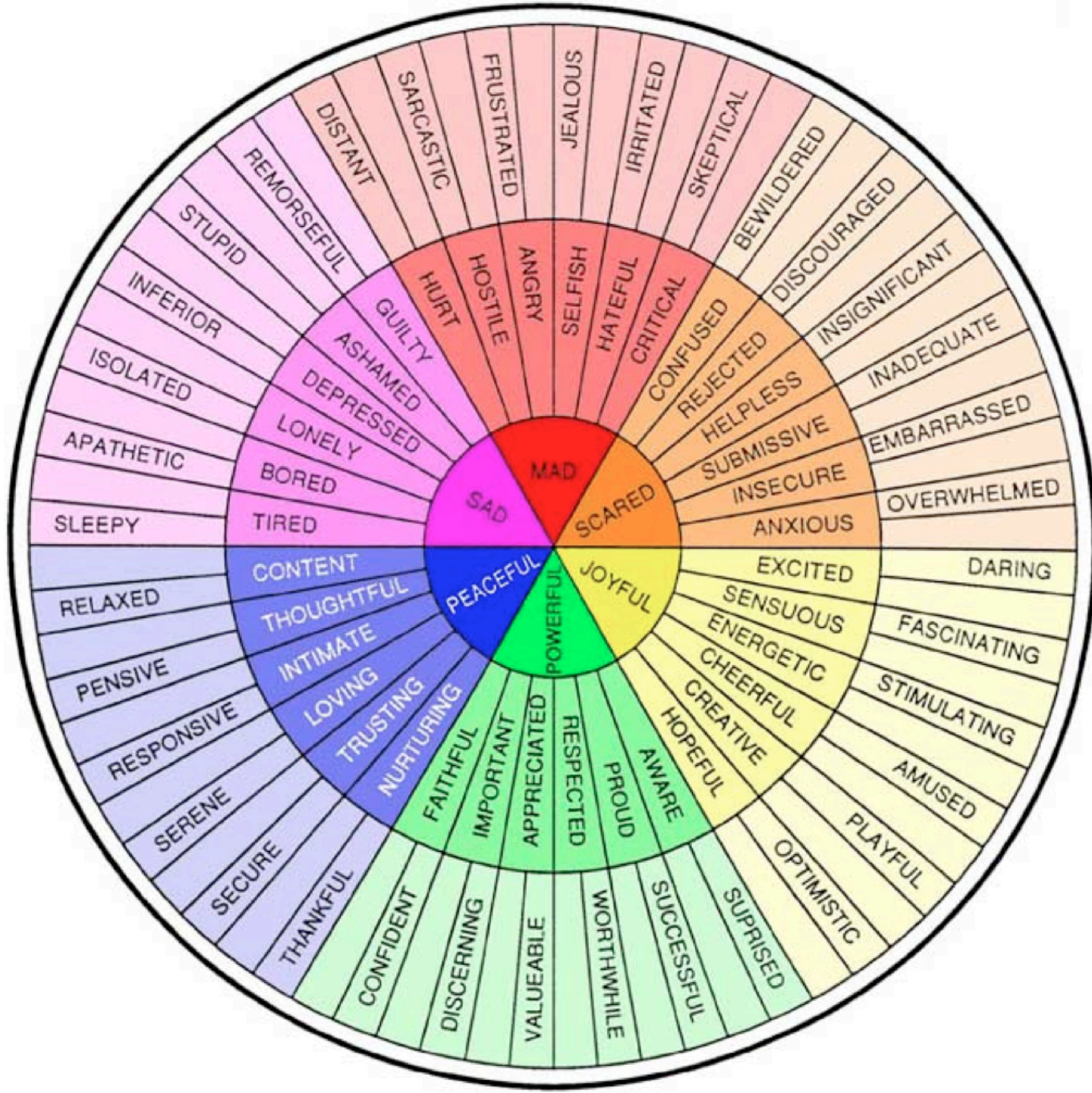


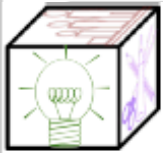
the rest of the formulation of your HMW

_____ ?



THE FEELING WHEEL





3. ...and again (analogical ideas)

Think of analogical people/places that you could get inspiration from to generate new ideas. First, think of a typical emotion related to your HMW, then how this emotion could be conveyed to your end-user in these analogous situations.

Team activity/ Practiced during TB&CS - done during meeting with mentor / Use post-its

What emotion are we trying to evoke?

hope, faith

What/where/who does that well?

- 1. A Buddhist**
- 2. Non-profit org.**
- 3. A movie star**

Analogous HMX question: reformulate your HMW using the template below, so as it considers the analogous situation, Use post-its of different color for different analogous situations

HOW MIGHT

a
Buddhist

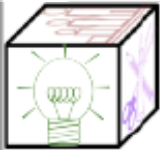
install hope/faith

recycle

reformation of your HMW

?

FIX THIS CARD ON YOUR WHITE BOARD



2. Planify brainstorming session to go deeper in ideation step...

A popular and effective way to foster your creativity is to brainstorm ideas, but that address a specific HMW question.

Brainstorming needs a bit of preparation and this card is designed for it.

Team activity/ Practiced during DT course – repeated when team on its own

1- Prepare your session – invite guests.

A BS is a group activity. The larger the number of participants, the better. Try to target guests from different horizons (culture, study profile, gender, age), so as to foster fresh ideas. A group of 8 people (including you) is a good start

Name and profile of guests:

- 1.
- 2.
- 3.
- 4.

2- Select the HMW question.

If you have raised several HMW questions at the end of the previous step, pick the one you believe is the most promising for BS. Of course, you can dedicate different BS to cover your HMW. It is just a matter of time!

HMW question:

4-Set warm-up session.

Just for the group to be in a good mood, set a group activity of your choice

Our warm-up session activity

3- Get ready for the session.

List all the stuffs you will need to run it smoothly. Don't expect your guests to come with pens and post-its! Also don't underestimate the power of sugar!

Stuffs you need:

The 7 IDEO's rule for good brainstorming session:

1. **defer judgment:** nobody should critic other ideas, since there are no bad ideas at that time
2. **Encourage wild ideas:** a bit of craziness may also hide a great component of a future product. In line with condition 1
3. **Build on the ideas of others:** think "and" rather than "but"
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