

# INITIATION TO CREATIVITY



ensgsi!



UNIVERSITÉ  
DE LORRAINE



InnovENT-E

*imacreated by Raphaël Bary & Hélène Pouille*

# WHAT IS CREATIVITY?



# CREATIVITY

is

**SIMPLICITY**

NOT

**COMPLEXITY**

# CREATIVITY

is the ability to:

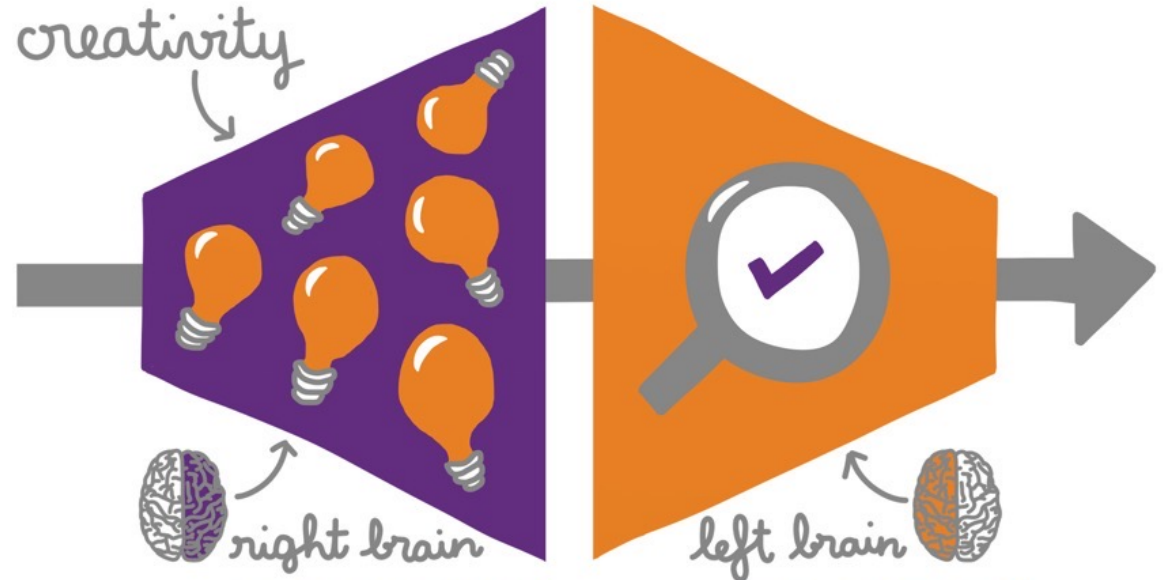


generate original

**IDEAS**



build new **LINKS**  
between existing things



## IDEA PRODUCTION

divergent thinking  
multidimensional  
open up the scope  
flexible

## IDEA SELECTION

convergent thinking  
one-dimensional  
deepen the focus  
channelled



never mix up these 2 steps



creativity session in progress...



# THE CREATIVE PROCESS



to solve a problem in a creative way, allow yourself to:

→ **TAKE THE LONGEST WAY**

do not run straight to the most obvious solution

!!! **FEEL FREE**

do not censor your speech and express even your dumbest ideas

zzz **BE LAZY**

take your time to entertain, to dream, to do something else




# HOW TO IMPROVE YOUR CREATIVE SKILLS ?



# WHAT INHIBITS CREATIVITY

-  EDUCATION
-  LACK OF/ EXCESSIVE CRITICISM
-  KNOWLEDGE/ EXPERIENCE
-  COMPETITIVE SPIRIT

## FEARS

-  THE FEAR OF BEING RIDICULOUS
-  THE FEAR OF BEING WRONG
-  THE FEAR OF NOVELTY/ADVENTURE

## THE TRINITY OF CREATIVE PEOPLE

WELCOME OTHERS' IDEAS  
don't censor, blame, criticize



GO FOR THE TEAM

*no individualism, ideas belong to the group*




EVERYTHING IS POSSIBLE

*they are no limits to imagination*

## IMPROVE YOUR POTENTIAL

-  PLAY
-  LAUGH
-  DREAM
-  FEEL AT EASE WITH YOUR BODY
-  KEEP YOUR CREATIVITY ALIVE

## OPENNESS

-  BE CURIOUS
-  LEARN TO OBSERVE
-  WELCOME OTHERS' IDEAS

# INITIATION TO CREATIVITY



ensgsi!



UNIVERSITÉ  
DE LORRAINE



InnovENT-E

*imacreated by Raphaël Bary & Hélène Pouille*

A large orange speech bubble with a white outline, containing the text "LEADING A CREATIVITY SESSION".

# LEADING A creativity SESSION



ensgsi!



UNIVERSITÉ  
DE LORRAINE



InnoVENT-E

*imacreated by Raphaël Bary & Hélène Pouille*



# LEADING A CREATIVITY SESSION

CREATE THE  
CONDITIONS



LEAD THE  
SESSION



USE THE  
RESULTS

- ? PROBLEM DEFINITION
- 👤 GROUP CONSTITUTION
- 📅 PLAN THE SESSION
- ✍️ MATERIALS
- ⚡ BREAK AWAY FROM THE ROUTINE
- ✓ REMIND THE RULES
- ↔️ ADAPT TO THE GROUP
- 🔧 USE TOOLS
- 📄 FILL IN IDEA SHEETS
- 👍 EVALUATE AND SELECT
- 🧠 KEEP IN MEMORY

# CREATE THE CONDITIONS

# LEAD THE SESSION

# USE THE RESULTS



## PROBLEM DEFINITION



confirm you are facing the real problem



search for data (statistics, prospective, analysis, pictures...)



formulate the problem in a non-oriented way



propose graphic/visual representations of the issue



## GROUP CONSTITUTION



gather 5/10 people



prefer heterogeneous groups



make sure there is a good chemistry among members



## PLAN THE SESSION



be sure to have enough time



articulate the different steps and tools used



don't forget to include breaks/rest periods



define the results you want to obtain



## MATERIALS



find a comfortable place away from hustle and bustle



prepare individual and collective working spaces



materials needed:  
- paperboards  
- post-it  
- markers  
- scotch tape



# CREATE THE CONDITIONS

# LEAD THE SESSION

# USE THE RESULTS



## BREAK AWAY FROM THE ROUTINE



propose a game to get into a playful mood



tell a tale or a story linked to the theme of the session



do some relaxation exercises



## REMIND THE RULES



welcome other's ideas (don't censor, blame, criticize)



everything is possible (there are no limits for the imagination)



go for the team (no individualism, ideas belong to all)



## ADAPT TO THE GROUP



stay aware of the momentum



don't be a slave to the agenda



avoid mixing up convergent and divergent phases



take your time and do not force people



## USE TOOLS



conscious dreaming (don't think your thoughts)



reversed reasoning (think the contrary)



analogy (think different)



concept mapping (lay your thoughts down on paper)



SCAMPER (generate ideas in a systematic way)







# CREATE THE CONDITIONS






# LEAD THE SESSION

# USE THE RESULTS

## FILL IN IDEA SHEETS

-  create sheets containing the main elements describing an idea
-  fill in the sheets in groups of 2 or 3 people
-  try to detail the idea as completely as possible
-  propose visual representations, scenarios of use

## EVALUATE AND SELECT

-  gather the ideas according to their proximity
-  look for links and cross-fertilisation between ideas
-  define criteria to evaluate the ideas
-  confront the selected ideas with new data, searches, experts...
-  be sure to assess both feasibility and viability

## KEEP IN MEMORY

-  stock the idea sheets (don't bury them!!)
-  share your ideas with other company's members
-  elaborate a framework to get feedbacks

# CREATIVITY TOOLS



ensgsi!



UNIVERSITÉ  
DE LORRAINE



InnovENT-E

*imacreated by Raphaël Bary & Hélène Pouille*

# CONSCIOUS DREAMING

⚡ originally build by Robert Desoille

👤 alone or small group (~8 persons)

🕒 at least 45 minutes

🌀 comes from psychoanalytical methods

LET YOUR IMAGINATION TALK BREAK FROM REALITY  
DO NOT TRY TO DOMESTICATE YOUR THOUGHTS



become conscious of a problem or help creative insight with an intermediate state between awaking and sleeping



live an inner scenario that takes place in an imaginary/fantasy world

+



free your mind and let your imagination talk without trying to dominate or domesticate it

=



thoughts as concrete as possible with a sensory basis



define the problem to be solved



choose a good moment (the evening, the holidays, the week-end)



be in a quiet and relaxing environment (silence or soft music, half-light, alone...)



be in a good mood



sit down / lay down and relax while thinking about the problem



write down the ideas produced (during or after the dream)



doesn't need a lot of means and ensures that all the unconscious processes of the mind are used



may be difficult to apply without being coached by an expert / most of all, like any psychoanalytical tool, disturbances inhibits thoughts

# REVERSED REASONING



particular form of  
brainstorming

alone or  
in a group

THE SHORTEST WAY IS NOT ALWAYS THE BEST ONE  
THINK THE CONTRARY OF WHAT YOU ARE LOOKING FOR

- ↔ look for solutions that could be applied to the reversed problem initially defined
- ↻ based on one of the most important principles of creativity methods:  
not trying to reach directly the solution

## PREPARATION

- ?? define the problem
- express all the opposal / antitecal formulations
- ←
- ✓ choose the best one  
(many tries may be necessary)

## — search for the — OPPOSITE SOLUTION

- 💡 look for all the ideas  
that could solve the  
opposite problem

## back to the PROBLEM

- reverse each opposite  
solution to find out a  
solution to the initial  
problem
- ←
- ✓ evaluate and select  
the new ideas



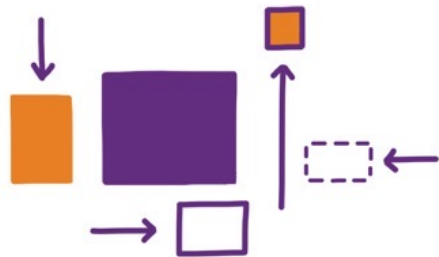
- double creative process: 2 different brainstorming sessions: the search for opposite solution + the return to the initial problem
- possibility for a person alone to carry out each step at different moments, during this time, during this time, a subconscious work (incubation) will help to produce more ideas



- takes long time
- may be difficult to express the opposite formulation of the problem
- most of all, people who do not consider themselves as creative should use this method in a group



# ANALOGY



FIND SIMILARITIES BETWEEN THE PROBLEM TO SOLVE AND OTHERS TAKING PLACE IN DIFFERENT DOMAINS

find out links and relations between separated elements and use these similarities to generate ideas that bring solutions to the problem to solve

the most evident

**DIRECT ANALOGY**

wonder in which domains there are similarities with the problem to solve

**PERSONAL ANALOGY**

identify yourself with an object linked to the problem

**SYMBOLIC ANALOGY**

throw some poetic light on the problem while expressing spiritual, abstract, general ideas

**FANTASY ANALOGY**

consider the problem solved "by magic" and try to find out what this magic could be

**FIELDS FINDING**

look for domains with pertinent similarities

**FIELDS EXPLORATION**

express all the possible analogies

**ANALOGY SELECTION**

study each analogy and keep only those that could be interesting for the problem

**RETURN TO THE PROBLEM**

bring back to the field of the problem to generate as many solutions as possible



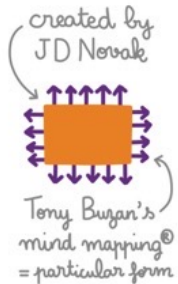
- really easy to handle
- usually give good results



- requires a lot of knowledge in a wide range of domains



# CONCEPT MAPPING



LAY YOUR THOUGHTS DOWN ON PAPER • EXPLORE ALL THE FACETS OF A PROBLEM • SHOW THE ELEMENTS AND THEIR RELATIONSHIP

represent knowledge with graphics and diagrams (also helpful to formalize problems and find solutions)

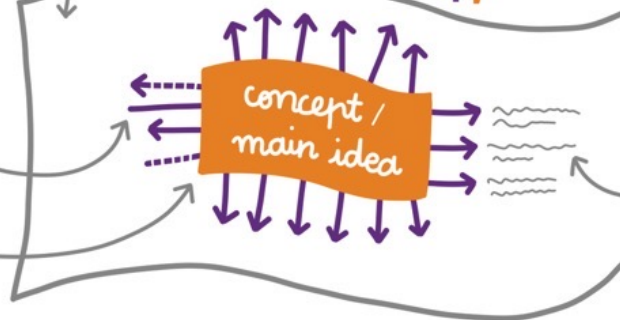
all you need is a large sheet of paper

## THE MAP

symbolised form of the concept that can be modified, improved and shared

links (explained or not)  
arrows or simple lines

⚠ identify clearly the  
concept / main idea



all the dimensions of the concept  
and their relationship



do not try the perfect map on the go, there is no specific step to build the map  
just start writing down all the ideas (elements, links) coming to the consciousness  
and improve this first work



- easy to handle
- particularly suited to "low creativity" persons
- good way to keep a trace of your thoughts and their evolution
- there is a lot of Concept Mapping softwares

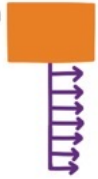


to produce a lot of new ideas, it may be necessary to use other creativity tools to foster the Concept Mapping potential



# SCAMPER

developed by  
Bob Eberle



GENERATE IDEAS IN A SYSTEMATIC WAY • APPLY ACTIONS TO THE PRODUCT / ORGANISATION / PRODUCT TO CHANGE

7 thinking techniques



list of actions to apply to an object or a situation to find unusual ideas  
more a mnemonic for the collection of techniques rather than a technique of its own



**SUBSTITUTE**  
remove some part of the accepted situation, thing or concept and replace it with something else



**COMBINE**  
join, affiliate or force together 2 or + elements of your subject matter and consider ways that such a combination might move you toward a solution



**ADAPT**  
change some part of your problem so that it works where it did not before



**MODIFY**  
consider many of the attributes of the thing you're working on and change them arbitrarily if necessary  
attribute include: size, shape, dimension, texture, color, attitude, position, history...



**PURPOSE**  
(put to other use)  
modify the intention of the subject / think about why it exists, what it is used for, what it is supposed to do / challenge all these assumptions and suggest new and unusual purposes



**ELIMINATE**  
arbitrarily remove any or all elements of your subject, simplify, reduce to core functionality



**REVERSE**  
change the direction or orientation / turn it upside-down, inside-out or make it go backwards against the direction it was intended to go or be used / you can also rearrange, modify the order of operations or any other hierarchy involved

! if you can't think of anything in response to the SCAMPER prompt you're using it, force a response, no matter how ridiculous it seems and think of ways to make the non-logical response work



• quite easy to handle  
• particularly suited to "low creativity" persons



still to be found



ensgsi!



imacreated by Raphaël Bary & Héliane Pouille