


Creativity is perhaps at essence a way of thinking and organising ideas differently and against what are considered norms. These tools foster creativity through association, challenging assumptions, abstract thinking and exploring problems fully.

Brute Think



To force associations and new trains of thought by focusing on unrelated objects

We see relationships between objects we are taught are related, such as chair and table, but in order to get original ideas, you will always need a way to create new sets of patterns in your mind. One way to do this is to force yourself to see relationships between dissimilar things. Forcing these can results in fresh thinking on old challenges.

I. Bring in a random word— **i.e.dancer**

II. Think of the characteristics or associations of that word: **skilful, entertaining, dedicated, coordinated, ballet**

III. Force connections between the random word and the challenge you are working on. **We need to increase student retention on a course:**

◇ Skilful—are we focusing too much on knowledge and not skills? Can we look at vocational elements of courses to appeal to different learning styles?

◇ Entertaining—are we putting enough emphasis on the enjoyment of learning? Can you learn and also have fun?


◇ Dedicated—are we sure that the students we accept are committed to education and do they know what they will need before they start the course?

◇ Coordinated—are we linking with other universities to address this issue? Are we working together across departments—i.e. student welfare, finance?

◇ Alternatively think of what you do with that word—**people watch dancing, dancing is popular, some people find it very difficult to do?** How do we cater to people who find staying on a course difficult to do?

IV. Ensure you list and develop these ideas as much as possible. Try picking different words to force more associations.

Challenging Assumptions



To not be limited by assumptions taken for granted To generate new ideas by reversing conventional thinking

Thomas Edison would interview potential new employees over a bowl of soup. If they salted their soup before tasting, he would not offer them a job as he did not hire people who had too many assumptions built into their everyday life. Assumptions limit creativity by precluding other possibilities. Instead focus on what is taken for granted.

To challenge your assumptions:

◇ State your challenge

◇ List your assumptions

◇ Challenge your fundamental assumptions

◇ Reverse each opposite—write down the opposite of each, or reverse the verb (i.e. organise can become “disorganise”)

◇ Note the different viewpoints that might be useful.

◇ Create ideas to accomplish that reversal.

Worked example: A new restaurant needs to find a creative means to stand out:

Assumptions:

◇ Restaurants have menus

◇ Restaurants charge money for food

Reversals:

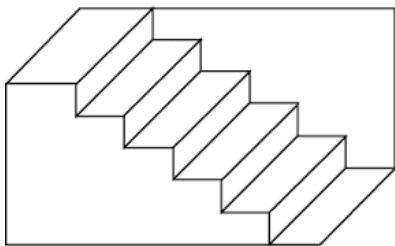
◇ Restaurants have no menus of any kind

◇ Restaurants give food away for free


Ideas to accomplish that reversal

◇ The chef tells customers what they bought that day: the customer chooses items and the chef creates a dish based on these.

◇ The restaurant is in an attractive location and sells time. Customers pay to be there and can eat or drink for free while in the restaurant.



Subconscious Incubation



To prime your subconscious (and that of your team) to solve the problem while you aren't working on it


The legend of Archimedes discovering his Principle claims that he did so while in the bath. Our minds continually process information long after we have stopped actively considering a problem—these answers can then come to use as inspiration. This technique helps to create the conditions for these answers by priming our subconscious.

I. Identify a challenge worth working on and think of the consequences of solving it. Envision the world in which this challenge is solved. Describe this in the present tense, in as much detail as possible.


II. Collect and gather all available information on your challenge. Read, talk to others, ask questions and do as much research as you can. This is the most important stage—work on the challenge as intensely as you can until you are satisfied you have prepared as thoroughly as possible. The more intensity, interest and passion you bring to solving the problem, the more likely your subconscious will generate ideas.

III. Instruct your subconscious to find the solution. You may say that you will be back in two days for the answer, or to let you know the minute it is worked out.

IV. Now let go of the problem. Don't work on it for a while—a length of your choosing. Wait for your insight to occur. Doing different things in the meantime may help you form connections between your problem and new stimuli.



The Phoenix Method



To use (and develop your own) checklist of questions to guide thinking towards a solution

Developed by the CIA, Phoenix is a checklist of questions to encourage examining a challenge from many different angles. This is not a definitive list so add to it with your own questions. The important point is to keep asking questions until you find the question that shows the problem in a new light, and leads to the answer.

Questions to frame the problem:

◇ Why is it necessary to solve the problem? What benefits will you gain by solving the problem?

◇ What is the unknown? What is it you don't yet understand?

◇ What is the information you have? Is it sufficient? Insufficient? Contradictory?

◇ What isn't the problem? Where are the boundaries of the problem?

◇ Can you separate the various parts of the problem? What relationship is there between them?

◇ What can't be changed?

◇ Have you seen this before? Or something similar? Can you use this solution?

◇ How many different ways can you restate the problem? More general? More specific? Can the rules be changed?

Questions to frame the plan:

◇ Can you solve the whole problem? Part of the problem?

◇ What would you like the solution to be?

◇ How much of the unknown can u determine?

◇ Have you used all the information?

◇ Can you separate the steps in the problem-solving process?

◇ What techniques can use you to generate ideas?

◇ How many different kinds of results can you see?

◇ What have others done?

◇ What does you intuition say?

◇ What should be done? How should it be done?

◇ How will you know when you're successful?

Things to think about: There are other ways to force connections: find an article on the internet or in a magazine—connect the subject of the article to your challenge and generate some new ideas.

Things to think about: Schroeder's staircase appears correct when turned upside down and so can many assumptions: Do students need to attend a University? Distance Learning shows they do not

Manager Toolkits

more available at <https://www.aston.ac.uk/staff-public/hr/organisational-development/leadership/managers-toolkits>