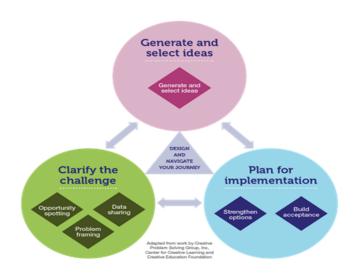




# **Creative Problem-Solving Toolkit**

(a Design Thinking methodology)





"You cannot use up creativity. The more you use, the more you have."

Maya Angelou

#### Aim of this toolkit

This toolkit was designed by one of our valued suppliers, Bluegreen Learning Ltd, with the aim of inspiring people like you to apply innovation in your workplace, by providing a set of powerful yet east to use learning resources in one convenient place.

Our hope is that learning these creativity and innovation skills will aid productivity, enjoyment of work, and help the delivery of better and safer patient care for people across our communities.

There is an expressed need for greater use of innovations and innovative thinking across health and care in the UK, and this toolkit is designed to offer knowledge and skill development in the effective use of tools and techniques through three key factors:

- 1. Demand is increasing for these skills. Organisations want people to have the ability to turn ideas into value - new products, services, experiences, processes, business models, etc.
- 2. They are learnable. We have worked with hundreds of learners from different sectors to help them learn the tools, skills and mindset explained here.
- 3. They are difficult for artificial intelligence to substitute. These skills need human judgement and contextual expertise, and they will remain human-centred skills for the near future.

All of which means these capabilities are good bets for your future employability.

To this end, in this workbook, you will find:

- Summaries of insights from creativity and innovation research.
- How-to tools and techniques to help you develop ideas.
- Brief videos supporting each stage of the model.
- Links to websites for further information, including accreditation options.
- Selected, brief blogs, to read more about specific topics, in more depth.

This toolkit is supported by our website which has further information, short explanatory videos along with guidance notes and worksheets.

\*Source: https://www.weforum.org/agenda/2020/10/top-10-work-skills-of-tomorrow-howlong-it-takes-to-learn-them/

### The holistic approach

A common definition of creativity is:

#### the generation and development of novel and useful ideas

Innovation can be thought of as value produced from creative ideas. In other words, there can be creativity without innovation, but there can be no innovation without creativity.

There have been many views about what creativity is. In his influential 1961 research\*, Mel Rhodes wrote.

"About five years ago I set out to find a definition of the word creativity. I was interested in imagination, originality, and ingenuity" (p. 306).

Rhodes gave us a valuable way to look at creativity. Because creativity works across disciplines, it helps to have model that can be applied in different contexts. He collected fifty-six definitions, noted the patterns, and categorised them into four types:

- Product which is taken to mean the organisational outcomes that are desired. These
  may be products, services, processes, markets, etc... (This is the 'A' in our model
  below.)
- **Process** how people make progress through learning, problem solving, decision-making and so on. (This is the 'B' in our model below.)
- **Press** how the person 'fits' with the environment. (This is the 'C' in our model below.)
- **People** the differences between people that can bring different perspectives. (This is the 'D' in our model below.)

The parts are complementary: your innovation efforts will be more successful by taking a holistic view. In our ABCD adaptation below, we look at the role of leadership in enabling creativity:

How you align ideas to strategic organisational goals, bringing the products, services, customer experiences and business models you want.

How you optimise different ways of thinking, to have more inclusive debates with wider perspectives and better outcomes



How your organisation builds skills in people to spot opportunities, define challenges, generate many ideas and prototype, test and improve them to aid implementation

How you ensure that the work environment supports idea development - in teams, departments, and the whole organisation

<sup>\*</sup>Rhodes, M. (1961). An analysis of creativity, *Phi Beta Kappen, 42*, 305-310.

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#### The Innovation Bind

A common definition of creativity is the generation and development of novel and useful ideas.

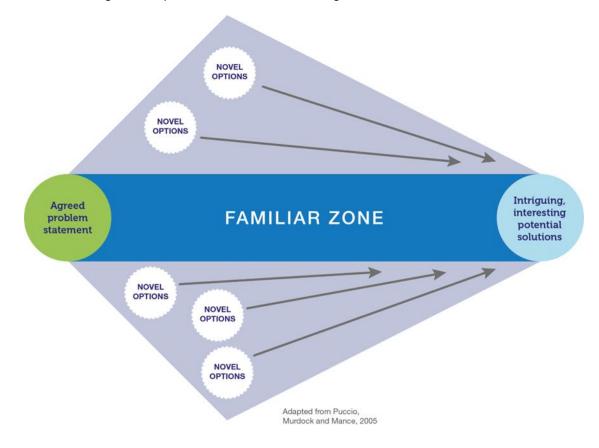
Innovation can be thought of as value produced from creative ideas. In other words, there can be creativity without innovation, but there can be no innovation without creativity.

Creativity necessarily involves uncertainty because when novelty is needed, the outcome is unclear. The following factors can all reduce our awareness and thinking:

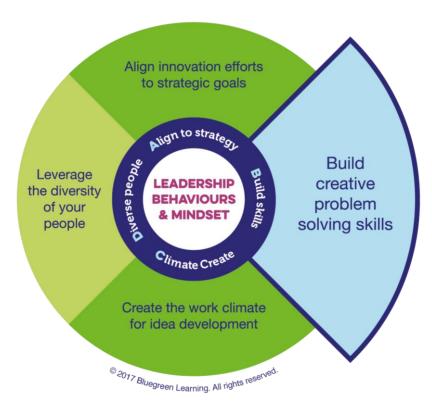
- Feeling anxious about uncertain outcomes
- Being overloaded with work, leaving no time for good quality thinking
- Feeling pressured with time, workload, other stressors

The innovation bind is that the very circumstances that require us to generate novel and useful insights may also lead us to feel anxious and revert to safe, habit-formed solutions. We do this when we feel under threat.

In the diamond-shaped diagram below, we are into the second stage of the creative problem-solving process – idea generation and selecting. If our strategy really requires novel ideas, then we need to more consciously build in approaches that will foster this and build these novel insights into possible solutions to strengthen later.



#### **Build Skills: Creative Problem-Solving tools and techniques**



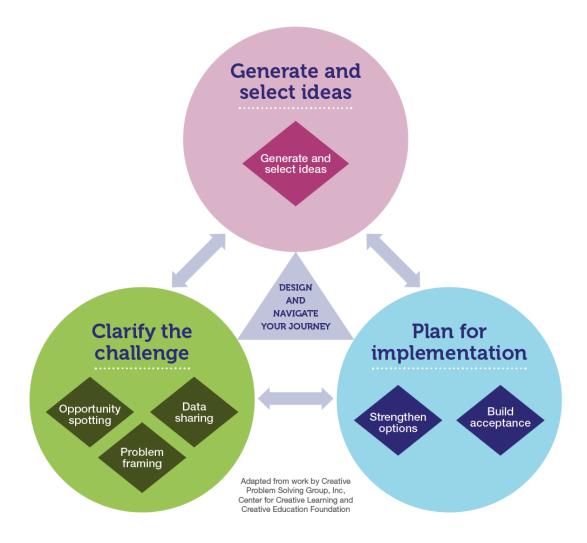
#### About this creative problem-solving toolkit

This toolkit in this section has been designed to help your ongoing creative problem solving. It assumes that you are working on challenges where the problem is 'messy': there are multiple interpretations of what the problem is, as well as no obvious 'right' solution, and plenty of requests for "new ideas." In short, you will want the group to be creative in its thinking. And a group is needed because the challenge is too complex for one person.

In this toolkit, creative thinking tools are located at the stage where they can add most value. They are adapted in the light of our own, and others,' experiences to recommend how to use them effectively. Where possible they are sourced to their original author.

This toolkit has built on the work of others: Creative Problem-Solving Group, Buffalo; One Step Beyond Consulting; the Open University B822 module on Creativity, Innovation and Change; and Bluegreen Learning. It has been synthesised by Dr Rob Sheffield from Bluegreen Learning, and further developed for the West of England Academic Health Science Network.

# A framework for the creative problem-solving process



## Navigate your journey - using your judgement

It is not necessary to work through each stage of this three-stage process every time you need creative thinking. The judgement and skill for you to develop is in diagnosing which stage is immediately relevant.

#### Consider these possibilities:

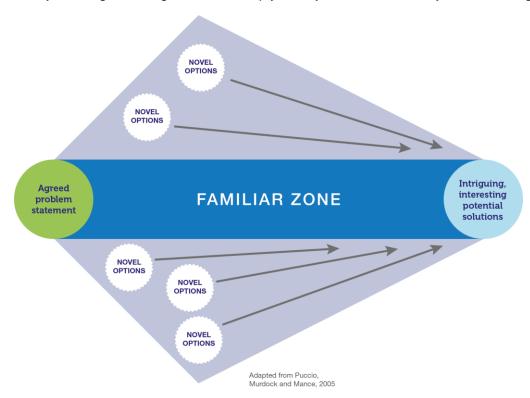
 Sometimes, you will not have a clear problem from which you can generate ideas. In this case, start by exploring the challenge through more detailed 'discovery' work, which might involve gathering more detailed intelligence and capturing key insights from service users, colleagues, other organisations who have faced similar challenges. See stage 1 of the framework: clarify the challenge.

- On occasions, the problem will be clear, and what is needed is many, varied and unusual ideas, first generated then narrowed down. This is stage 2 of the framework: idea generation and selection.
- At other times, the solution may have already been developed, but the issue is in 'selling' it to other influential stakeholders, or in developing the idea to make it more tangible or planning a pilot to test the solution. This is ripe for stage 3 of the framework: planning for successful implementation.

#### A fundamental rule: separating divergent and convergent thinking

Note that the stages of the creative problem-solving framework are diamond shaped. This means they each have an element of generating as well as focusing.

A clear rule for creative problem solving is to separate out these two parts in your planning. When you are generating ideas, be careful not to evaluate or sort the options at the same time you are generating – this will simply slow you down and likely be frustrating.



## Four rules for generating options\*:

- Defer judgement: as mentioned above, at this stage avoid judging your ideas that comes in the focusing stage.
- **Strive for quantity**: the more you generate, the more likely that some ideas will be novel and promising for you.
- **Freewheel**: Be playful and do not be concerned about ideas sounding wild or strange. Unique connections may be the start of something.
- **Seek combinations:** build on each other's ideas, modify them, 'piggy-back' on each other's ideas.

#### Four rules for focusing options:

- 1 **Use affirmative judgement**: look for the strength of an option before the limitations. The focusing stage should develop ideas to make them stronger.
- 2 **Be deliberate:** use tools to focus. Being systematic can help you make decisions that get wider buy-in and avoid 'hidden agendas.
- Consider novelty: At this stage, people sometimes 'weed-out' novelty, going for less threatening options. Ensure that novel ideas are nurtured and enhanced through this stage. If you remove all the novel ideas, people will think their time has been wasted in generating them!
- 4 **Stay on course:** Select your promising ideas with a view to where you are navigating: your end goal or vision for improved products, services, processes...

#### **Tools vs techniques**

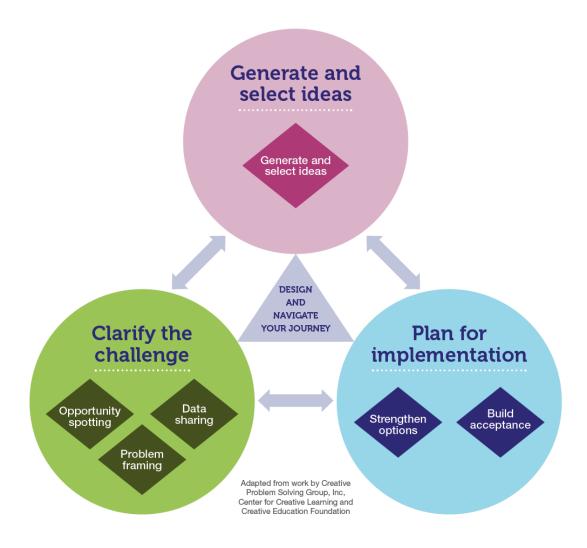
Let us distinguish between "tools" and "techniques."

Tools are the step-by-step instructions contained in this booklet, aimed at helping you navigate through specific stages of the Creative Problem-Solving process.

Techniques are the tips, skills, approaches you use that help the tools 'come to life.' Facilitators use different techniques on the same tools, and this affects outcomes. A key skill is in working out in which part of the above diagram your group needs to start.

<sup>\*</sup> Source: Isaksen, S., Dorval, B. and Treffinger, D. (2011). Creative Approaches to Problem Solving: A framework for Innovation and Change. 2011.

# **Stage 1: Clarifying the challenge**



"If I had only one hour to save the world, I would spend 55 minutes defining the problem and 5 minutes finding the solution."

**Albert Einstein** 

# Clarifying the Challenge: tips from practice and research

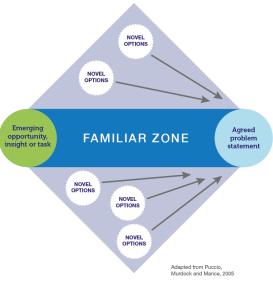
Some people think that the main aim of creative problem solving is to produce ideas. Have you had the experience of thinking you have solved a problem, only for it to re-appear, like a bump under the carpet?

Or believing you have worked on the real problem, only to discover later that it was a symptom of the real problem?

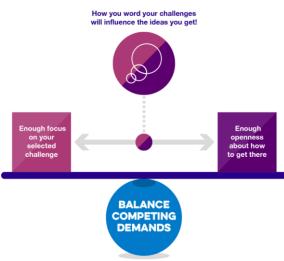
Or that it was difficult to get a consensus on what the problem was, and that lack of consensus undermined real commitment from people with the power to take meaningful action?

Or that the problem you were working on seemed unconnected with meaningful opportunities or visions of what you believed were important?

The challenge of this stage is to move from having broad opportunities, and important insights from data, to framing a challenge for which you need ideas. And, if you employ a combination of divergent and convergent thinking, it will increase your odds of doing it imaginatively.



How will you know that you have done this part well? You will balance the tension of having a focus on the right work challenge, with an openness about how you get there.



And the pay-off from developing these skills can be substantial:

"Since our launch, more than 10 years ago, we have managed more than 2,000 problems and solved more than half of them—a much higher proportion than most organizations achieve on their own.

Indeed, our success rates have improved dramatically over the years (34% in 2006, 39% in 2009, and 57% in 2011), which is a function of the increasing quality of the questions we pose and of our solver community...

We now know that the rigor with which a problem is defined is the most important factor in finding a suitable solution. But we have seen that most organizations are not proficient at articulating their problems clearly and concisely. Many have considerable difficulty even identifying which problems are crucial to their missions and strategies."

Dwayne Spradlin: Former CEO of Innocentive https://hbr.org/2012/09/are-you-solving-the-rightproblem

# **Stage 1: Problem exploration and definition tools**

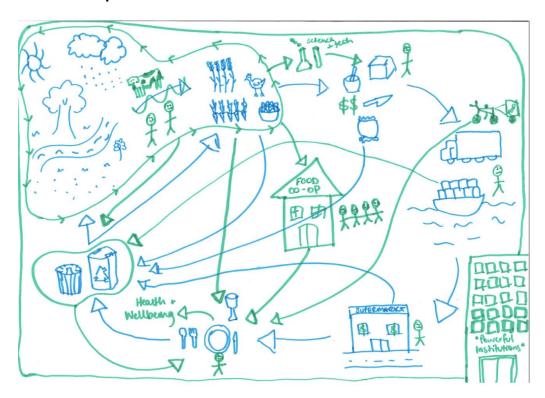
| Tool                    | Value it can give  | Approximat<br>e<br>time<br>needed |   |
|-------------------------|--|-----------------------------------|---|
| Rich pictures           | Getting an initial overview of a problem. Also, for understanding the different points of view about a complex situation.  | 40 minutes                        | Coloured pens, large paper  – flipchart sized is best   |
| Six universal questions | When you want to investigate many aspects of the problem.  | 20-30<br>minutes                  | Flip-chart paper and coloured pens – make it visible to all.  |
| Why? Why?<br>Why?       | Getting to the root of the problem.  | 20 minutes                        | The 'problem-owner' answers questions. Flip-chart paper and coloured pens – make it visible to all. |
| Goal<br>orientation     | Understanding the different aspects of a problem. Apt when you when a logical, structured way of thinking about the problem.   | 20-30<br>minutes                  | Flip-chart paper and coloured pens – make it visible to all.  |
| Web of abstraction      | Use this for making, broad, abstract challenges more specific and concrete. (Or to make challenges that are too narrow and specific become broader and more general.) It helps the group decide on the apt level of abstraction needed for the task. | 20 minutes                        | Flip-chart paper and pens – make it visible to all.   |
| Boundary<br>Examination | Isolating the most important parts of the problem and rethinking these to change the focus of the problem itself.  | 20 minutes                        | Flip-chart paper and coloured pens – make it visible to all.  |

The following pages describe how to use each of these tools.

#### **Rich Pictures**

- A group of people meets to solve a problem. If the group needs it, first give an initial briefing about aspects of the problem. What is known about it, any key data, and important people and themes.
- Each member of the group individually and privately draws the problem as they see it on a piece of (ideally) flip chart paper. Use no words, only drawings and any symbols.
- When all are ready, one person sticks their picture to the wall/flipchart and other group members ask questions as they try to understand what is represented in the drawing. The picture owner responds to the questions, giving their own view of what the drawing means, but letting the group lead by asking questions and making their own interpretations. When the group feel they have understood this drawing, they pass to the next group member. The process is repeated until all group members have presented their Rich Pictures.
- Each group member then privately writes down on a card/piece of paper their definition of the problem beginning with the words "How to...." When everybody is ready, these definitions are displayed on the wall/flipchart/table.
- The group discusses the different definitions and writes a final, agreed version.

#### **Rich Picture example**



Source: Checkland, P.B. & Poulter, J. (2006) Learning for Action: A short definitive account of Soft Systems Methodology and its use for Practitioners, teachers, and Students

#### **Six Universal Questions**

'I keep six honest serving men; they taught me all I knew. Their names are WHAT and WHY and WHEN and HOW and WHERE and WHO'

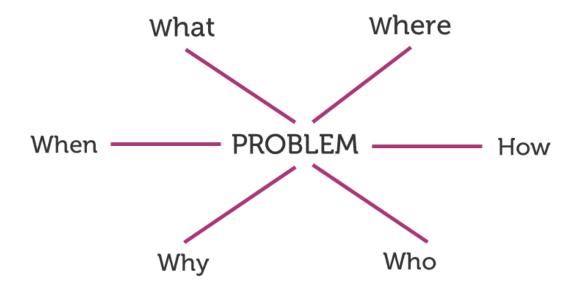
Rudyard Kipling (from "Just So Stories")

#### What? Where? When? How? Why? Who?

Draw a mind map or wheel of the problem, with these six question words as the spokes. You can go round the group and go round the wheel asking questions: person A asks a question beginning with "What," Person B beginning with "Where," Person C beginning with "How" etc. If they have no question, they can say "Pass." Write on a flip chart anything you want to write.

Or you can go round the whole group in turn with each person asking a" What" question, then a round of asking a "Where" question etc. Or you may even find a new way of using this technique!

The important thing is that it puts a structure on what is often a chaotic and poorly managed Question and Answer session. And it also forces people to structure questions in particular ways beginning with particular words. This element of "forcing" can take your mind into new areas and encourage you to see and to explore the problem from a new angle.



Source: Van Gundy (1988) Techniques of Structured Problem Solving, Van Rostrand Reinhold.

#### Why / Why / Why?

Having given a general overview of the problem, the problem owner faces the group and each group member in turn asks them a question beginning with "Why...?" One person in the group needs to act as recorder (but can still participate in asking questions).

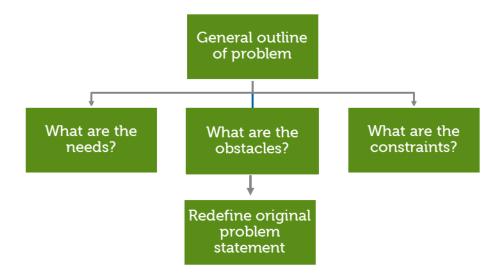
A warning – it can be tough for the problem owner who must answer this continual barrage of "Why" questions, which may start to get down to a personal level. Be aware of this and sensitive to the reaction and the feelings of this person. Stop the activity at any time when you feel there is a danger of going too far into a personal area or ask the problem owner's permission to continue.

You could also agree that the problem owner may say "Pass" if they do not want to answer a specific question for whatever reason.

At the end of this activity the group may be able to rewrite the problem statement beginning "How to...?" Or, to go on and use another problem exploring/defining tool.

Based on Van Gundy, (1988), Techniques of Structured Problem Solving, Van Rostrand Reinhold

#### **Goal Orientation**



A general description of the problem is set out, being sure to include all the pertinent information.

- Through discussion, the group tries to establish what needs to be accomplished (needs) and what stands in the way of achieving this (obstacles).
- When they have done this, the group specify what restrictions must be accepted to solve the problem (constraints).
- Based on all the information generated by addressing the questions in points 2 and 3, the group write down redefinitions of the original problem statement, beginning "How to .....?"

Source: Rickards, T. (1974), Problem Solving through Creative Analysis, Gower

#### Web of Abstraction

- Explain the purpose of this task: to help explore and define appropriate problem statements, using different levels of abstraction. We are aiming to generate several different problem statements, to help us choose one(s) that resonate.
- Ask the group for a desirable goal in relation to the challenge, beginning with "How might we..." or "How to..." Write it down on a post-it so the group can see it, and place it somewhere visible (such as a flipchart, or wall,) with space above and below it.
- Generate more abstract options for this initial statement, by asking "Why do we want that?" Record responses to this as options, each one on a post-it, phrased as a question, starting with "How might we..." or "How to..." Place these post-its vertically above the original statement, and connect them to the original option that generated them.
- Take one of these newly generated options and, again, ask "Why" we want it. Record further options on post-its, which will be more abstract, and place them vertically above the post-it that prompted them.
- When you have enough of these more abstract options, take the original option and ask, "What is stopping us achieving this?" or "What is getting in the way?" Frame these newly generated comments as statements, starting with "How might we..." or "How to...." Write each of them on post-its and place them below the original options. These will be more concrete options.
- Take one of these new, more concrete options, and, again, ask "What is stopping us achieving this?" or "What is getting in the way?" As in step 5, write each new option, framed as a question, on post-its and place them below the question that generated them.

Web of Abstraction to do this? us doing this?

Source: Hayakawa, S. I. (1979). Language in thought and action. 4th ed. NY: Harcourt Brace Jovanovich

Click here for a short video on Web of abstraction

#### **Boundary Examination**

- Write out the problem statement, visible to the whole group, beginning "How to...."
- Ask the group to underline the most important words and phrases.
- Examine each underlined word or phrase in turn for assumptions and connotations. See how the meaning changes if you use a synonym or near synonym.
- Through this discussion the group may arrive at a word or phrase which they feel describes the problem more accurately. This should be noted down.
- Using these new words and phrases, rewrite a new problem statement beginning "How to....'

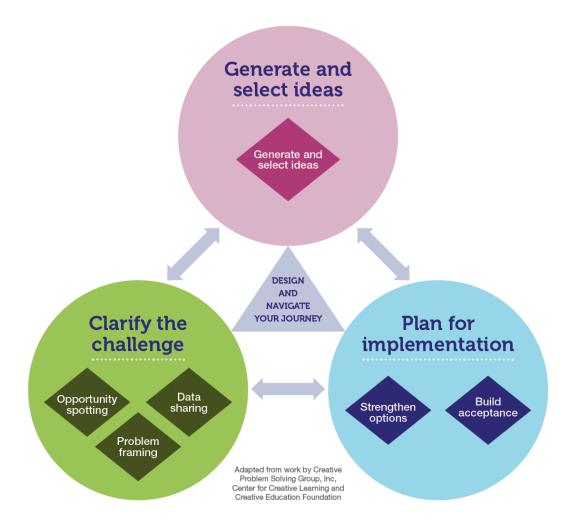
Source: De Bono E. (1982) Lateral Thinking for Management. Penguin Books





Click here for a short video on Boundary examination

Stage 2: Idea generating and idea selecting



"The way to get a good idea is to have lots of ideas and throw away the bad ones."

Linus Pauling

## Idea generating tips from practice and research

#### Main principles

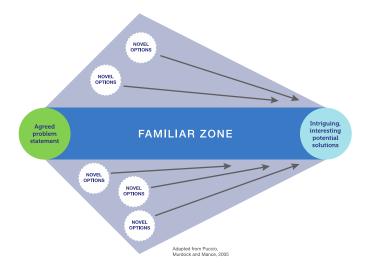
- The aim of this stage is to generate potentially novel and useful options. At the end of this stage, these ideas will not be fully elaborated – they will still need more work, so do not worry that they are not yet completely persuasive.
- Remember to separate the generating from the focusing. Do not evaluate the pros and cons of ideas at this stage. Use the generating guidelines: defer judgement, seek quantity, freewheel, and combine.
- Encourage novelty. It is easier to make a very novel idea into one that is also feasible, then to turn a feasible idea into something also novel.
- Consider different aspects of novelty:
- Fluency where the emphasis is on *many* options.
- Flexibility where the emphasis is on different *types* of options.
- Originality where the emphasis is on *novelty or unusual* options.
- Elaboration where the focus is on *detail*, making options richer and more expanded.

#### Leverage group diversity

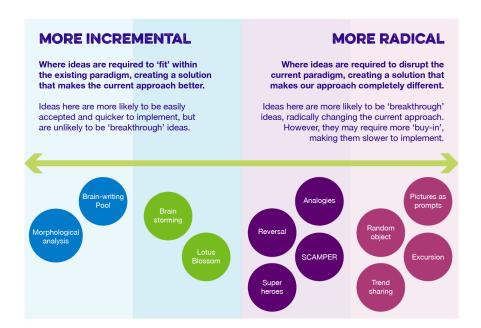
- Aim to build in individual and group activities in your generating session, to suit the different thinking styles of your people.
- Maximise the range of individual thinking, by using tools that accommodate different views from people.
- Maximise building, and combining ideas, by sharing ideas across the group
- As a generalisation the more innovative the person's style, (Kirton 2003), the easier they will find the generating part of creative problem solving. Use this energy. Also, ensure there is enough structure in the way the group works: writing down ideas and placing them somewhere visible; following the guidelines for this stage and for each tool you use. Note that some tools are more structured than others. Generally, aim to encourage people's problem-solving style to come forward.

#### **Facilitator role**

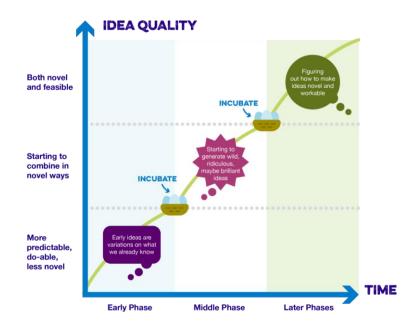
Focusing takes more time than generating, but it often the part that is cut short. Aim for time split of 30% generating and 70% focusing. A bit like in the diagram below:



- Use a range of idea generating tools, to suit your aims, the diversity of your group, and to maintain interest and energy. Depending on the time you have available, we suggest you aim for a minimum of three generating tools in your session.
- Different tools are more likely to yield different types of ideas: some more incremental, some more radical. In his targeted Innovation model, Gryskiewicz (1987) distinguished between categories of ideas. The idea generating tools in this section range from being suited for more incremental change to more radical change. From making 'better' to making 'different.' Learn to use them all and choose the right mix of tools for the challenge.



Use the research insight of Extended Effort (Parnes, 1961). This argues that the initial
ideas from idea generation will tend to be more familiar and typical. Extended effort
means that as time continues, ideas will tend to become more novel or unusual. Later,
people will combine the more unusual aspects with the more familiar to forge novel and
useful ideas. The facilitator's role becomes one of stimulating the group through asking
questions, and/or introducing new creative tools.



# **Stage 2: Idea Generation tools**

| Tool                           | Creative concept it is based upon and value it can give.  | Approximate time needed |
|--------------------------------|---|-------------------------|
| Brain-writing pool             | Idea fluency and flexibility. This tool can help generate many ideas, quickly, as individual thinking is combined with group thinking. It is useful when some people are quieter and may not want to shout ideas in front of others.  | 10-15 minutes           |
| Morphologica<br>I Analysis     | Idea fluency and flexibility. This tool can help generate many ideas, quickly. It combines different parts of the existing process / product / service in new ways.   | 15-30 minutes           |
| Brainstormin g (with post-its) | Idea fluency. This tool can help generate many ideas, quickly. It helps participants hear and build on each other's ideas.  | 10 – 20<br>minutes      |
| Lotus<br>Blossom               | Idea fluency and flexibility. This too can be useful if you are trapped in a way of thinking, or need the seeds of others, or simply to generate initial many ideas quickly.  | 20-30 minutes           |
| Analogies                      | Idea flexibility and originality. This tool uses the perspective of something similar in some way but different in others. Use an analogy in a different domain from your challenge to produce more novel ideas.  | 15 – 25<br>minutes      |
| Reversal                       | Idea flexibility and originality. This tool can be useful for stimulating different types of ideas, as well as more unusual ones. It often generates energy and laughter  | 10 – 25<br>minutes      |
| SCAMPER                        | Idea flexibility and originality. This tool uses a wide range of creativity concepts and 'triggers' to provoke new ideas. Can be useful for stimulating many ideas, as well as different types and originality of ideas.  | 10 – 30<br>minutes      |
| Super heroes                   | Idea flexibility. This uses others' perspectives to generate options by taking a new look at existing problems. It can be useful when the group needs to 'loosen up' and have more fun or is prepared to take a risk and try something different.   | 20-30 minutes           |
| Pictures as prompts            | Idea originality and flexibility. Use this when the group is stuck or needs an insight from a place unconnected with the problem. Use it to change the tone, if you have been using mainly 'verbal' thinking and want to introduce visual images. It can help to generate highly novel ideas. | 20 minutes              |
| Random<br>object               | Idea originality. Use this when the group is stuck or needs an insight from a place unconnected with the problem. It can help to generate highly novel ideas.   | 10-15 minutes           |
| Excursion                      | Idea originality. Use this when the group is stuck or needs an insight from a place unconnected with the problem. Use it to change the tone, as you encourage people to imagine an excursion somewhere unconnected to the problem. It can help to generate highly novel ideas.                | 20 minutes              |
| Trend-sharing                  | Idea originality and flexibility. Use this to get people thinking beyond the boundaries within which their current problem is located. It helps people stretch their thinking to include changes from other aspects of work and society.  | 20-30 minutes           |

#### **Brain-Writing Pool**

#### **Purpose –** use this tool to:

- Involve people who, for whatever reason, may not want to shout out an idea they have in front of a group of people. It allows more time for individual reflection.
- Generate many ideas in a short time.
- Have equal participation in the idea generating process.

#### **Description**

Brainwriting gives group members quiet time to consider options as they generate. After generating three options, each group member exchanges their worksheet for another worksheet. The new worksheet will provide three ideas to stimulate further ideas, which will be written in the next available row. Group members can write ideas related to the ones above or may write completely new and different ideas.

#### **Process**

- The facilitator reminds the group of the task: the challenge or problem for which they need ideas. Make the problem statement visible. Give the group time to ask clarifying questions to the client, if needed.
- Remind the group of the generating guidelines: defer judgement, go for quantity, make connections, and seek novelty. Agree a target number of ideas with the client.
- Without describing all the steps of the tool, broadly explain what this tool is used for. Answer any questions.
- Give a brainwriting worksheet to each group member. Emphasise that this is a silent exercise, with no discussion of ideas.
- Ask group members to generate an initial three ideas and to write them in the top row.
- When complete, group members place their worksheet in the middle of the group. accessible to others.
- Each group member picks up a new worksheet, and quietly reads the three ideas just written. They use these to trigger another three ideas and write them in the next available row.
- Note that if the ideas read do not trigger new ideas, group members can write completely new, unrelated ideas.
- Repeat the process until all rows are complete or time has finished.

#### Resources needed

- Brainwriting worksheets, or sheets of paper with hand-drawn columns and rows.
- Or put the same format on flip-chart paper for each person, encouraging more physical movement.

#### **Facilitator tips**

- Brainwriting is more likely to produce incremental ideas. Depending on what is needed for the challenge, combine it with other tools to produce the range of ideas needed.
- Encourage people to work in silence this helps the more introverted to concentrate and gives room for more individual thinking.
- When the exercise is complete, display the worksheets so everyone can see the full list of ideas.

Source: Warfield J. N., Geschka H., and Hamilton R., (1975), Methods of Idea Management, Columbus, Ohio, The academy for **Contemporary Problems** 

#### **Morphological Analysis**

Purpose - use this tool to:

- Generate a large number of ideas in a short time.
- Deliberately seek incremental improvement.
- Explore new combinations within an existing approach by looking at the current parameters.

#### **Description**

Morphology refers to the study of form or structure in nature. This tool can yield a high number of ideas very quickly, many of which are likely to be incremental changes on what already exists, and may be quick, inexpensive, and low risk to implement. Zwicky developed the tool, (1969), who also, incidentally, inferred the presence of dark matter in the universe!

#### **Process**

- The facilitator reminds the group of the task; the challenge or problem for which they need ideas. Make the problem statement visible. Give the group time to ask clarifying questions, if needed.
- Remind the group of the generating guidelines: defer judgement, go for quantity, make connections, and seek novelty. Agree a target number of ideas with the client.
- Without describing all the steps of the tool, broadly explain what this tool is used for. Answer any questions.
- Identify the 4 6 most important parameters of the task. Clarify the meaning of the parameters.
- Write each parameter at the top of a column. In the example below, the product is a cup. Parameters would include shape, size, material, colour, holding mechanism and décor.
- Ask group members to add the current and real variations for each parameter, so that each column has a number of possibilities. Aim for a minimum of three, maximum of ten items and then number the rows.
- Generate ideas by, for example, selecting an item from each column and ask the group what possibilities they imagine; allowing the group to scan the possibilities and suggest new combinations; picking row numbers at random – form example, 112234 in the table, would be a square, ear-shaped, medium sized, ceramic material, with graded colours that was wipeable! A ceramic glaze could make the cup wipeable, like an office whiteboard. Capture all ideas.

| Shape             | Holding<br>mechanis<br>m | Size        | Material   | Colour           | Decor                  |
|-------------------|--------------------------|-------------|------------|------------------|------------------------|
| 1. Square         | Ear-shaped               | Large       | Steel      | Black            | Personalise d photos   |
| 2. Oval           | Embedded saucer          | Medium      | Ceramic    | White            | Holographic images     |
| 3.<br>Cylindrical | Standard<br>'ring'       | Small       | Disposable | Graded colours   | None                   |
| 4.<br>Triangular  | Nothing                  | Super large | Titanium   | Multiple colours | Graffiti –<br>wipeable |

#### Resources needed

A visible space so everyone can see the morphological matrix. Flip-chart paper and flip-chart pens. Worksheet, post-its or further flip-chart paper for capturing ideas.

#### **Facilitator tips**

- Keep the parameters to the most important 4-6, to keep the process manageable.
- Multiple pages of flip-chart paper may be needed to create the matrix columns.
- Consider adding a final column with a parameter that is not currently used in the task being considered. This is likely to produce more unusual ideas.

Source: Zwicky, F. (1969), Discovery, Invention, Research through the Morphological Approach, New York, Macmillan

#### **Brainstorming (using post-its)**

**Purpose –** use this tool to:

- Generate a wide range of potential solutions. (Idea fluency.)
- Help the group feel good at many options generated, and ready to try out different tools.
- Articulate the ideas that are already on people's minds.

#### **Description**

Various approaches to brainstorming have developed over the decades. With this method, the recording of ideas is done by individuals writing their ideas on post-its, and the facilitator places them somewhere where all can see. (The latter approach usually speeds up the ideasharing process.)

#### **Process**

- The facilitator reminds the group of the task: the challenge or problem for which they need ideas. Make the problem statement visible. Give the group time to ask clarifying questions, if needed.
- Remind the group of the generating guidelines: defer judgement, go for quantity, make connections, and seek novelty. Agree a target number of ideas with the client.
- Without describing all the steps of the tool, broadly explain what this tool is used for. Answer any questions.
- The facilitator gives the group members 2-3 minutes to write initial ideas: one idea recorded on each post-it. Then collect these initial post-its, asking the individual to say the idea aloud, and hand it to the facilitator who puts it somewhere visible to all, such as wall or flipchart. By saying the idea 'out loud' this may stimulate further thoughts in others, so they can build on that thought with their own idea.
- The facilitator notes the energy levels. Do not continue for so long that people start getting bored; on the other hand, do not stop too soon because going that extra minute or so, making that extra effort may just be the point you need to get to to generate your breakthrough idea.
- Flipcharts of ideas generated are put on the wall. The group can then move on to another thinking tool.
- If the problem-owner is present, ask them for feedback on the ideas. Is this what they are looking for? What is interesting? What is missing?

#### Resources needed

Flip chart, flip-chart pens, post-its, pens for post-its, such as Sharpies

#### **Facilitator tips**

- Reinforce the guidelines for generating ideas.
- Make the ideas visible to the whole group, as this can stimulate further ideas.
- Have other idea generation tools available, as brainstorming can be over-used.

Source: Osborn, A. F. (1953). Applied imagination: Principles and procedures of creative thinking. New York: Charles Scribner's Sons

#### **Lotus Blossom**

**Purpose** – use this tool to:

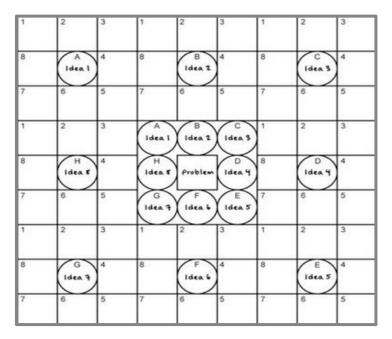
- Generate many ideas.
- And a range of different ideas.
- Capture those ideas that are already in people's minds, before using other tools.

#### **Description**

Lotus Blossom is more structured than many ideas generation tools. In relatively short time, it can help generate seventy-two ideas and often leads to a variety of ideas as well as a lot. It is less likely to generate highly unusual ideas.

#### **Process**

- The facilitator reminds the group of the task: the challenge or problem for which they need ideas. Make the problem statement visible and place it in the centre of the Lotus Blossom template shown below. Give the group time to ask clarifying questions, if needed.
- Remind the group of the generating guidelines: defer judgement, go for quantity, make connections, and seek novelty. Agree a target number of ideas with the client.
- Without describing all the steps of the tool, broadly explain what this tool is used for. Answer any questions.
- Give group members a couple of minutes of private time to generate initial ideas and write these on post-its.
- Ask different group members to give an initial eight ideas, and place these in spaces A-H in the template. (Make sure that these ideas are different to each other.)
- Then place these eight ideas in their respective places around the template: 'A' will move to the top left corner, into space "A' and so on.
- Encourage the group to generate eight more ideas, prompted by each of these initial eight. This could give you seventy-two ideas in total. Their further ideas may be obviously connected to the initial idea or may be quite different. Anything goes.
- Continue until the template is complete, or time runs out, or the client is satisfied.



Resources needed: lotus blossom template, post its

#### **Facilitator tips:**

- Ensure that the initial eight ideas (A-H) cover a range of themes. That will help give you variety.
- Encourage people to place ideas anywhere on the chart where they can follow their interests and energy.

Source: Yasuo Matsumura, Director of the Clover Management Research, Japan



Click here for a short video on Lotus Blossom

#### Analogies – "It's the same as ...."

#### Purpose – use this tool to:

- Generate a variety of types of ideas.
- Get the group to think beyond the boundaries of the current challenge.
- Provide some highly original ideas.

#### **Description**

This tool uses the perspective of something similar in some ways but different in others to the real problem or challenge you are considering.

#### **Process**

- The facilitator reminds the group of the task: the challenge or problem for which they need ideas. Make the problem statement visible. Give the group time to ask clarifying questions, if needed.
- Remind the group of the generating guidelines: defer judgement, go for quantity, make connections, and seek novelty. Agree a target number of ideas with the client.
- Without describing all the steps of the tool, broadly explain what this tool is used for. Answer any questions.
- Generate a list of objects, people, situations, or actions that are similar, but not related to the problem. For example, if the problem is preventing vandalism of company property, think of things that involve the concept of prevention, e.g. speed cameras to stop people driving too fast, spraying a car to prevent rust, fitting a burglar alarm to your house, eating healthily to minimise health problems... Write them up where people can see the
- Ask the group to choose some interesting analogies ones that they are curious about, and they like.
- Ask the group to choose an initial analogy that is close in some way to your actual problem.
- Invite the group to call out the aspects, attributes, parts, functions, characteristics, etc of this analogy. Write them visibly and stop when the list is complete.
- Now ask group members to make connections between this list and the real problem. What ideas do they think of as possible solutions? (As with some other generating tools, you are using the principle of "force fit" to generate new ideas – in other words, trying to force a connection between two things which have no connection at all.) Give people some individual time to write ideas if they need it.
- Go round the group and ask people to call out their ideas. Record them on flipchart or ask the group to write them on post-its. Continue until ideas are finished.
- Ask the group (or the client) to select a second analogy that is more distant in some way from the challenge. Repeat the above process, ending with a further series of ideas.

#### Resources needed

Post its, flipchart, flip-chart pens

#### **Facilitator tips**

- Be sure to write the aspects and qualities of the analogy in detail, before generating ideas about it. The more details you get, the more connections can be made.
- Consider using one analogy that is 'close' to your real problem and another that is 'far away.'

Source: Based in part on Van Gundy, (1988), Techniques of Structured Problem Solving, Van Rostrand Reinhold.

#### Reversal

#### **Purpose –** use this tool to:

- Help the group generate different types of ideas.
- View the problem from a different perspective, which can help when groups are 'stuck' for more ideas.
- Provide an alternative, or addition, to traditional brainstorming.

#### **Description**

This often generates a lot of laughter and can be 'releasing' for a group that is ready to try something different. The group may also realise they are currently doing some of the 'worst ideas' they list.

#### **Process**

- The facilitator reminds the group of the task: the challenge or problem for which they need ideas. Make the problem statement visible. Give the group time to ask clarifying questions to the client, if needed.
- Remind the group of the generating guidelines: defer judgement, go for quantity, make connections, and seek novelty. Agree a target number of ideas with the problem owner if they are available.
- Without describing all the steps of the tool, broadly explain what this tool is used for. Answer any questions.
- Share with the group a reversal of the problem statement. For example: How might we create new markets for existing offers? might be reversed to be: How might we shrink to nothing our existing markets?
- Invite the group to state ideas for this reversed problem statement. Encourage people to say what is on their mind and to imagine way-out, crazy ideas. Write these so they are visible to the group. When energies run low, or time dictates, end this phase.
- Ask the group to select interesting ideas from the list just generated. Aim for ones that are different to any previously generated if you have used previous tools.
- Reverse these ideas to turn them into genuine ones that might form solutions to the real, original problem. Take the time needed for this. Ask things like: "What is in these ideas that is interesting?" and "How could we reverse these ideas to solve the real problem?"
- Record the new ideas and make them visible.
- End the exercise when you have enough new ideas, or the group energy needs a change.

#### Resources needed

Flipchart, flip-chart pens, post-its can be useful for the eventual ideas generated.

#### **Facilitator tips**

- Encourage the group to suggest out-of-the-box, even preposterous ideas to the reversed problem. (People sometimes need a nudge to do this.)
- Do not reverse every idea listed it becomes very laborious. Instead, invite the group to select the interesting, intriguing ideas that can be reversed to create genuine ideas to solve the problem.

Source: Adapted from Osborn's Checklist tool in: Osborn, A. (1988) Applied Imagination, 3rd Ed., New York, Scribners

#### **SCAMPER**

**Purpose –** use this tool to:

- Generate different types of ideas and change the energy.
- Help people think from different perspectives.

#### **Description**

This works best with the facilitator using the different parts of SCAMPER to prompt new and different ideas. It is not necessary to work through each part of the tool, and different viewpoints are often yielded when the facilitator chooses a to take the group in a different direction, using a different part of the tool.

#### **Process**

- The facilitator reminds the group of the task: the challenge or problem for which they need ideas. Make the problem statement visible. Give the group time to ask clarifying questions, if needed.
- Remind the group of the generating guidelines: defer judgement, go for quantity, make connections, and seek novelty. Agree a target number of ideas with the client.
- Without describing all the steps of the tool, broadly explain what this tool is used for. Answer any questions.
- Choose a question, from or like the checklist below, and ask it to the group.
- Ask the group to say aloud the potential new options.
- Challenge the group to consider quite different, unusual possibilities. Encourage a playful search for new directions.
- Record the new ideas as they emerge, using flipchart, or post-its. Make these visible to the group. Be prepared to slow down and consider promising new directions when they emerge, and to elaborate these in more detail if appropriate.
- Choose new questions to generate new directions and follow the same sequence as above.

Substitute: Who else instead? What else instead? What other ingredients / materials/ process/ power/ place/ approach/ tone of voice.

Combine: How about a blend? An alloy? An assortment? An ensemble? Combine units, purposes, appeals or ideals?

Adapt: What else is like this? What other idea does this suggest? Does the past offer a parallel? What or whom could I copy?

Modify/Magnify/Minify: What to add? What to subtract? What to omit? Time? Frequency? Strength? Height? Length? Colour? Odour? Thickness? Streamline? Understate? Split up?

Put to other uses: Could modifying its form, structure, weight, frequency suggest another use? Change the context?

Eliminate: Leave this out? Use fewer parts? Lighter? What can we do without?

Rearrange/Reverse: Opposite? Backwards? Invert? Upside down? Reverse roles? Change shoes?

#### Resources needed

This is 'light' on extra resources. The facilitator will need the SCAMPER prompt questions and ways of recording ideas and making them visible to the group.

#### **Facilitator tips**

Adapt the questions to suit your needs and use a range of questions.

Source: Eberle, B. (1971). Scamper. Buffalo, NY: DOK (reprinted in 1997 by Prufrock Press, Waco, TX.) Adapted from Osborn, A. (1988) Applied Imagination, 3rd Ed., New York, Scribners

#### **Super Heroes**

#### **Purpose –** use this tool to:

- Generate ideas from a different, liberating perspective.
- Produce different types of ideas if you need more variety.
- Be playful and have fun.

#### **Description**

With this tool, group members address the problem from the viewpoint of a selected superhero, with all their imagined super-powers. By doing so, they are liberated to generate ideas from another perspective.

#### **Process**

- The facilitator reminds the group of the task: the challenge or problem for which they need ideas. Make the problem statement visible. Give the group time to ask clarifying questions, if needed,
- Remind the group of the generating guidelines: defer judgement, go for quantity, make connections, and seek novelty. Agree a target number of ideas with the client.
- Without describing all the steps of the tool, broadly explain what this tool is used for. Answer any questions.
- Invite group members to select a superhero, but not yet share it. (The superhero can be living, dead, imaginary, human, animal or inanimate!)
- Choose one group member to start. Ask the person to call out their superhero's qualities and attributes. Write them somewhere visible.
- Encourage the group to guess the superhero ask the group member to reveal it if needed.
- Get the group to call out any more qualities they can identify for this superhero. Add them to the list.
- Now that the group can empathise with the superhero, invite them to 'be' the superhero. Ask: how would this superhero tackle this problem?
- Record the ideas as they are called out. This is likely to be a fluid, vocal exercise, so be quick with your writing.
- Allow time for idea elaboration. For example, a comment such as "Superman would fly instantly to the other side of the world," might need thinking to 'fit' to the challenge you are facing.
- When you have run dry on ideas, repeat the exercise, if time allows, this time asking for a quite different superhero. Repeat the process above.

#### Resources needed

Flipchart, flipchart pens.

#### **Facilitator tips**

- If possible, allow for at least two different superheroes to be considered, one after the other.
- Be patient: allow group members time to explore irrelevant qualities, and then 'force-fit' them back to the challenge.
- Do not describe the whole process at the start. Instead, take group members through each stage as it happens, as to know the whole activity in advance may condition their responses and limit their thinking.

Source: Grossman, S. And Catlin, K. (1985), Super Heroes, presentation at the 31st Annual Creative Problem-Solving Institute, Buffalo, the Creative Education Foundation

#### Picture as prompts

#### **Purpose** – use this tool to:

- Produce highly original ideas that go beyond the boundaries of how the challenge is currently solved.
- To being new energy when the group is 'stuck.'
- Energise people who are open to visual stimuli, or if you have been using mainly 'verbal' stimuli so far.
- Give a guiet and more reflective approach to idea generation.

#### **Description**

This tool allows people to remove themselves from the immediate problem, and develop ideas from distant, unconnected sources. By distancing themselves and then re-connecting with the real problem, people are more likely to develop unusual ideas.

#### **Process**

- The facilitator reminds the group of the task: the challenge or problem for which they need ideas. Make the problem statement visible. Give the group time to ask clarifying questions, if needed.
- Remind the group of the generating guidelines: defer judgement, go for quantity, make connections, and seek novelty. Agree a target number of ideas with the client.
- Without describing all the steps of the tool, broadly explain what this tool is used for. Answer any questions.
- Encourage the group to relax for example, by showing them a picture or two and encouraging them to clear their minds.
- Point the group to 3-5 pictures you have already placed around the room. Give them the Pictures as Prompts worksheet and ask people to write their observations, thoughts, impressions as they look at each picture in turn.
- Tell people not to share these impressions with each other.
- When people have looked at each picture, ask them to make connections between their observations, thoughts, etc, and the real problem they are considering.
- Ensure that people record these ideas individually on post-its or paper.
- Ask people to share their connections with each other, and to record any other ideas that emerge, while they share ideas.

#### Resources needed

- 3-5 different pictures.
- Post-its or paper for recording ideas.

#### **Facilitator tips**

- Use interesting and unusual pictures that are unconnected with the problem.
- Use a variety of pictures unrelated to each other.
- Avoid brand names, celebrities and pictures that suggest anger, aggression, despair, disgust as these tend to narrow down thinking.

Source: Geschka H., von Reibnitz U., and Storvik, K. (1981), Idea Generation Methods: Creative Solutions and Technical Problems, Columbus, Ohio, Batelle Memorial Institute



Click here for a short video on Pictures as prompts

#### Random object

#### **Purpose –** use this tool to:

- Stimulate quite different thinking, and potentially original ideas.
- Direct ideas into new directions.

#### **Description**

This tool involves a classic principle of idea generating: 'force-fitting.' It can produce highly unpredictable, original results.

#### **Process**

- The facilitator reminds the group of the task: the challenge or problem for which they need ideas. Make the problem statement visible. Give the group time to ask clarifying questions, if needed.
- Remind the group of the generating guidelines: defer judgement, go for quantity, make connections, and seek novelty. Agree a target number of ideas with the client.
- Without describing all the steps of the tool, broadly explain what this tool is used for. Answer any questions.
- Show and share with the group a random object something you have brought with you, and which is unrelated to the problem.
- Ask the group questions like: "What does this trigger for you?" What does this make you think about?"
- Encourage people to share these associations with everyone.
- Ask the group to make connections back to the real problem. How do the thoughts, insights, associations connect?
- Capture the ideas, on post-its, or flipchart.
- If there is time and need, repeat the previous steps, introducing a different random object.

#### Resources needed

- At least two unusual objects, unrelated to the problem being discussed.
- Post-its, paper, or flipchart for capturing ideas.

#### **Facilitator Tips**

- Bring interesting, unusual objects to get people's attention.
- Leave the objects on the table, so people can touch and play with them.

Source: Whiting C.S. (1958) Creative Thinking, New York, Van Nostrand Reinhold

### **Excursion**

### **Purpose –** use this tool to:

- Produce highly original ideas.
- Satisfy a client, who wants ideas that 'stretch' beyond the boundaries of the existing approach
- Change the group energy if the group has become 'stuck' in a way of thinking.

### **Description**

This involves taking a type of journey, (mental or physical) away from the original problem, then returning to the original problem with different associations and ideas. It is appropriate for when highly novel ideas are needed, and the group may be somewhat 'stuck' in its way of thinking, and even its assumptions.

#### **Process**

- The facilitator reminds the group of the task; the challenge or problem for which they need ideas. Make the problem statement visible. Give the group time to ask clarifying questions, if needed.
- Remind the group of the generating guidelines: defer judgement, go for quantity, make connections, and seek novelty. Agree a target number of ideas with the client.
- Without describing all the steps of the tool, broadly explain what this tool is used for. Answer any questions.
- Select a trigger or situation. This involves removing the group from the problem at hand and taking a type of excursion, where new stimuli are encountered. There are many ways to do this, and the facilitator will choose. For example:
  - o Physical excursion: Invite the group to take a walk in the surrounding area, if you are in a highly stimulating context: park, countryside, zoo, museum, local street, ... Allow the group to go and agree a time for them to return. Ask people to note their impressions privately, but not to discuss this with others.
  - Mental excursion: You may invite people to imagine they are visiting a specific environment, e.g., desert, seaside, being prime minister or some other different job, planetary exploration... The facilitator may ask people to get comfortable and close their eyes at the start of this excursion. The facilitator will then improvise an imagined journey. It is important that the facilitator does not say too much. allowing time and space for people to use their imagination. Ask the group questions, to prompt them to consider what they see/feel/hear/smell/touch. After the excursion, allow reasonable time for individuals to write reflection of their impressions, observations, insights, etc. from the excursion, avoiding a group discussion at this stage.
- After either excursion, give people time to consider their impressions and write/develop them more fully. What did they sense, notice? What do they know about the 'place' they visited? What else have they heard about the place, or aspects of it? What else did the excursion make them think about?
- Ask people to share with the group some strong impression from their excursion. Write them up, visible to all.
- Add to these words or phrases, developing some 'fuzzy' connections and capture these.
- Now 'force' the impressions gathered back to the original problem. What connections do people make between their impressions and aspects of the original problem? Give this time and capture more concrete ideas in the usual way – pots-its, or on paper.
- When people are ready, invite them to share their ideas with the group. Place them somewhere visible and add any further ideas that emerge from this sharing.

#### Resources needed

- For a mental excursion, consider developing a script, to help you create vivid images.
- For a physical excursion a walk in gardens, or grounds, or city, or somewhere else with rich stimuli.
- Flipchart, flip-chart pens, post-its or paper for capturing ideas.

### **Facilitator Tips**

- When asking people for their initial images, (before developing ideas), write them up on flipchart, leaving some spaces between the words, to allow for more writing, as you develop fuzzy connections.
- Drawing, and/or verbal images, could be used to share the initial 'fuzzy' connections.

Source: Based in part on Prince, G. M. (1970) The Practice of Creativity. New York, Collier MacMillan

# Trend-sharing

### **Purpose –** use this tool to:

- Produce highly original ideas.
- Produce ideas that 'stretch' beyond the boundaries of the existing approach
- Get people interacting in small groups.

### **Description**

This involves people reading about and considering broad, 'mega-trends' that are affecting the world beyond the boundaries of the problem you are considering. This stretches the imagination of people and can bring ideas beyond the boundaries of what is done now.

#### **Process**

- The facilitator reminds the group of the task: the challenge or problem for which they need ideas. Make the problem statement visible. Give the group time to ask clarifying questions, if needed,
- Remind the group of the generating guidelines: defer judgement, go for quantity, make connections, and seek novelty. Agree a target number of ideas with the client.
- Without describing all the steps of the tool, broadly explain what this tool is used for. Answer any questions.
- Give each person a different description of a single mega-trend. Allow them around 5 minutes to read it.
- Encourage a first wave of ideas for the problem, stimulated by insights and associations from the trend. Tell people to capture these on post-its or paper.
- Ask people to pair up with someone and describe their trends. Give this 5-7 minutes.
- Encourage the pair to generate a new set of ideas and capture this second wave of ideas in the usual way.
- If there is time, encourage a new pairing, or trio, of different people, and follow the same process as above. Finish by capturing any new ideas.
- Ask people to share with the group their ideas and write any more that are stimulated by this process.

#### Resources needed

- A set of at least eight global, mega-trends. They should be recognisable and understandable to people.
- Post-its or paper for capturing ideas.

### **Facilitator Tips**

- Give people time to read and understand the trend, on first seeing it.
- Have more trends than the group size, in case someone wants to use a different trend.

Source: uncertain

# Idea selecting tips from practice and research

### Main principles

- Choose to focus when you have generated enough ideas. This is usually a subjective judgement, and the problem owner or a senior stakeholder's opinion might be important here. The aim of this stage is to select potentially novel and useful options for further development when you are planning for implementation.
- When you are focusing, use the focusing guidelines: affirmative judgement, be deliberate, consider novelty and stay on course. What we are doing here is 'lightfocusing.' Think of this as being careful to nurture promising, intriguing, novel ideas, while also removing any ideas that do not interest you. Do not be concerned that all the details of implementation are not finalised – that stage comes next.
- A classic problem in the focusing stage is that novelty is removed, and groups choose safer options. Ensure that you build in novelty and choose ideas that contain an element of promise or intrigue. If your client wants creative ideas, your job is to provide them.

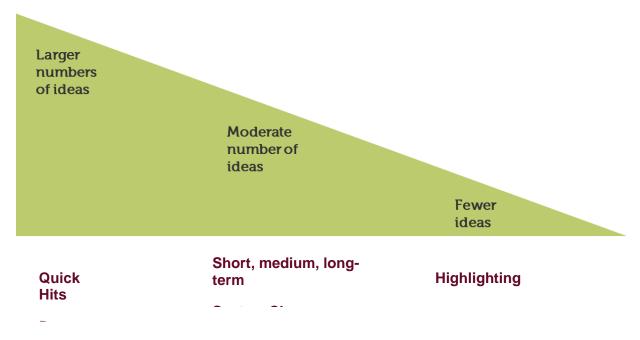
# **Leveraging Group Diversity**

As a generalisation the more adaptive the person's style, (Kirton, 2003), the easier they will find the focusing part of creative problem solving. Use this energy. Also, ensure there is enough looseness in the way the group works: follow the guidelines for this stage and for each tool you use, but also allow time to elaborate and develop ideas, not just select what is already present. Generally, aim to encourage people's problem-solving style to come forward.

#### **Facilitator role**

- Allocate more time for focusing than generating ideas: say 70% focusing time to 30% generating time. In practice, the focusing time is often squeezed, resulting in too many ideas and a sense of frustration: "what do we do next, with all these ideas...?"
- As with generating, choose the right tools to suit the situation. The model below should help.

# Use appropriate tools to suit the challenge



# **Stage 2: Idea Selection tools**

| Tool                               | Value it can give   | Approximate time needed |
|------------------------------------|---|-------------------------|
| Quick Hits                         | A simple tool for reducing many ideas to a manageable few.  | 10 – 15 minutes         |
| Dot Voting                         | Like Quick Hits, but with more structure. This is a voting-based approach to narrowing down many ideas to a manageable few.                               | 10-20 minutes           |
| Short,<br>Medium, and<br>Long-term | This is a sorting method, which allocates ideas to a timespan, depending on how soon actions could start to implement them.                               | 15 – 25 minutes         |
| System<br>Change                   | This is a different sorting method, which allocates ideas to categories, depending on the degree of system change that would be needed to implement them. | 15-25 minutes           |
| Highlighting                       | Reduces a considerable number of promising and intriguing ideas to small number of idea clusters.   | 10 – 20 minutes         |

The following pages describe how to use each of these tools.



Click here for a short video on <u>Idea Selection</u>

### **Quick Hits**

#### **Purpose –** use this tool to:

- Select promising, interesting, intriguing ideas from a long list generated idea.
- Select ideas that will need more strengthening and development at a later stage.

### **Description**

With this tool, people use their personal judgement to select those ideas that appeal from a wide list of alternatives. By selecting the options that seem 'on-target,' interesting, intriguing, to have potential, etc. people choose an initial set of ideas as a preliminary way of reducing a much larger list to a more manageable one.

#### **Process**

- Focus the group on this next stage. Remind the group of the broad range of ideas they wish to see being represented at the end of the session.
- Remind the group of the focusing principles: affirmative judgement, be deliberate. consider novelty and stay on course.
- Without describing all the steps of the tool, broadly explain what this tool is used for. Answer any questions.
- Ask the group to select promising ideas, by asking a question such as: 'Which ideas seem 'on-target,' or be to interesting, intriguing and have good potential?"
- Allow people time to make their choices. Sometimes, people will need reminding of the meaning of ideas that may have been generated some time ago, or by someone else.
- Allow people as many choices as they want, while reminding them of the client needs.
- Group members select their ideas and place their chosen ideas into a new single location.
- Check with the client on the final set of ideas chosen. How well does this meet the needs of the client? If any important considerations are missing, consider generating new or selecting further existing ideas.

#### Resources needed

- A place where all previous ideas can be displayed.
- Time for group members to consider, clarify and select ideas.
- A place, such as a flipchart, where chosen ideas can be placed.

#### **Facilitator Tips**

- Encourage individual decision-making so that groupthink does not squeeze out what the client needs.
- Allow for discussion between people, so that people understand the ideas from which they are selecting.

Source: This is a variation of a voting method described in Firestien, R. Treffinger, D. (1983). Ownership and Converging: Essential ingredients of creative problem solving. The journal of Creative behaviour. 17 (1).

# **Dot Voting (or Dotmocracy)**

### Purpose - use this tool to:

- Select promising, interesting, intriguing ideas from a long list generated idea.
- Select ideas that will need more strengthening and development at a later stage.

### **Description**

With this tool, people use their judgement to select promising ideas from a wide list of alternatives. It is slightly more structured than the Quick Hits tool and uses a voting process with a given number of votes per person.

#### **Process**

- Focus the group on this next stage. Remind the group of the broad range of ideas they wish to see being represented at the end of the session.
- Remind the group of the focusing principles: affirmative judgement, be deliberate, consider novelty and stay on course.
- Without describing all the steps of the tool, broadly explain what this tool is used for. Answer any questions.
- Ask the group to select promising ideas, by asking a question such as: 'Which ideas seem 'on-target,' or be to interesting, intriguing and have good potential?"
- Allocate people a number of votes (the same for each person). Judge this based on the number from which you are choosing, and the outcomes you want. Usually, something between 3-7 per person is appropriate.
- Give people a number of sticky dots for voting. Explain that:
  - One dot = one vote.
  - People can vote for their own ideas.
  - People can vote for the same ideas as each other.
- Consider marking some of everyone's dots with the latter "N," which indicates "novel." In this context, explain to the group that novel means that the organisation is not using this approach right now. It helps to bring novel, creative approaches into the shortlist created at the end of this session.
- Group members take their dots and select their ideas.
- When everyone has voted, place the chosen ideas into a new single location.
- Check with the client on the final set of ideas chosen. How well does this meet the needs of the client? If any important considerations are missing, consider generating new or selecting further existing ideas.

#### Resources needed

- Sticky dots for voting. (If you do not have these, allocate people a number of ticks, which they write on their chosen ideas.)
- A place where all previous ideas can be displayed.
- Time for group members to consider, clarify and select ideas.
- A place, such as a flipchart, where chosen ideas can be placed.

### **Facilitator Tips**

- Encourage individual decision-making so that groupthink does not squeeze out what is needed.
- Allow for discussion between people, so that people understand the ideas from which they are selecting.

Depending on how much novelty the client wants, vary the number of "N" dots accordingly.

Source: This is a variation of a voting method described in Firestien, R. Treffinger, D. (1983). Ownership and Converging: Essential ingredients of creative problem solving. The journal of Creative behaviour. 17 (1), and in Van Gundy, A. B., (1988), Techniques of structured problem solving, Van Nostrand Reinhold.

## Short, medium, and long-term

### Purpose - use this tool to:

- Sort promising and intriguing ideas into a time order for consideration.
- Prioritise ideas according to time constraints.
- Raise practical issues of time and planning.

### **Description**

With this tool, people organise a manageable number of ideas into a sequence, based on time. The group is answering the question: "By when could this idea start to be actioned?" If timing is especially important, this can be a way of planning and prioritising.

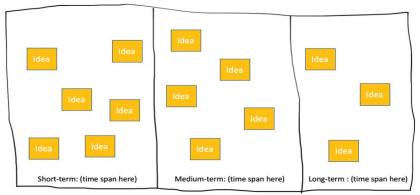
- **Process**
- Focus the group on this next stage. Remind the group of the broad range of ideas they wish to see being represented at the end of the session.
- Remind the group of the focusing principles: affirmative judgement, be deliberate, consider novelty and stay on course.
- Without describing all the steps of the tool, broadly explain what this tool is used for. Answer any questions.
- Prepare a short, medium, and long timescale, on flipchart, with "short" on the left, and "long" on the right, so the continuum is horizontal. Define the timescales of each in weeks, months, or years.
- Take one options at a time and ask the group to decide the category into which it should be placed. Ask them: By when could this idea start to be added value?"
- Allow for some discussion about this as needed. For example, people may question the meaning of the option, or have thoughts about different ways to action the idea.
- When every idea has been placed, consider, 'how well does this meet the needs of the exercise? What timing considerations does this raise?'

#### Resources needed

- Ideas on post-its can be useful for rearranging ideas.
- A surface wall, or whiteboard, for placing the time frames.
- Flip-chart paper, or whiteboard for writing the time frames.

### **Facilitator Tips**

- Allow the group to understand each item before deciding where to place it.
- Three flip-chart pages may be needed: one for each time frame.
- If time allows order items within time frames, as well as between them.



Source: This is often used as part of project planning and management. For example, Andersen E. et al (1995). Goal Directed Project Management. Kogan Page.

### System Change

#### **Purpose –** use this tool to:

- Sort ideas based on the degree to which they might require system change to implement.
- Show the extent to which incremental and more radical ideas have been raised.
- Highlight issues of risk, politics,

### **Description**

With this tool, people use their judgement to select promising ideas from a wide list of alternatives. It is slightly more structured than the Quick Hits tool and uses a voting process with a given number of votes per person.

#### **Process**

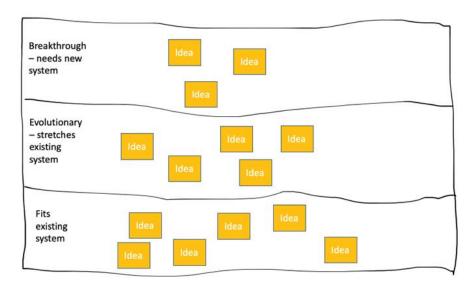
- Focus the group on this next stage. Remind the group of the broad range of ideas they wish to see being represented at the end of the session.
- Ask the group to select promising ideas, by asking a question such as: 'Which ideas seem 'on-target,' or be to interesting, intriguing and have good potential?"
- Without describing all the steps of the tool, broadly explain what this tool is used for. Answer any questions.
- Prepare a vertical continuum on flip chart paper or whiteboard, with:
  - o At the bottom: Fits existing system meaning ideas selected would work within the existing system.
  - Moving up: System could stretch meaning the current system could evolve, without breaking, to implement this idea.
  - Nearer the top: Requires new system meaning we would need a new approach to implement this idea.
- Allow space above all three headings, into which you can place ideas into the appropriate category.
- Take each idea, one by one, and ask: "How might far could this be implemented within existing systems?" Allow the group time to have a shared meaning of the issues involved.
- Work through the ideas individually, allocating them to the appropriate categories.
- Check the final set of ideas chosen. How well does this meet the needs of the problem owner? If any important considerations are missing, consider generating new or selecting further existing ideas.

### Resources needed

- Flip-chart paper, or whiteboard for writing the continuum and a surface for displaying.
- Ideas on post-its can be useful for rearranging ideas.

### **Facilitator Tips**

- The group is simply making best judgements here. They do not need deep internal knowledge of the politics and culture of the adopting organisation.
- Consider combine this tool with Short, Medium, long to show a more sophisticated
- Allow the group to understand each item before deciding where to place it.



Source: uncertain

# Highlighting (also known as an Affinity Diagram)

### **Purpose –** use this tool to:

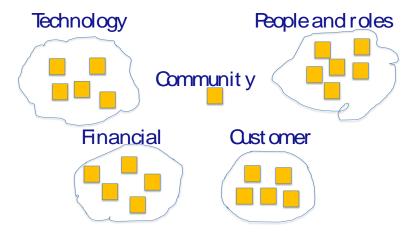
- Reduce a significant number of ideas to a shorter, more manageable few.
- Identify 'hot-spots' or themes for your ideas.
- Consider the themes that could be turned into testable concepts.

### **Description**

The Highlighting tool is used to reduce a 'middling' number of options to a manageable few. Having selected interesting, intriguing possibilities, through tools like Hits or Dot Voting, these ideas are organised into similarly themed clusters.

#### **Process**

- Focus the group on this next stage. Remind the group of the broad range of ideas they wish to see being represented at the end of the session.
- Remind the group of the focusing principles: affirmative judgement, be deliberate, consider novelty and stay on course.
- Without describing all the steps of the tool, broadly explain what this tool is used for. Answer any questions.
- If you have not already done so, select ideas from the ones generated that look intriguing, interesting, novel and with potential. Bring all the selected ideas into one space.
- Invite group members to start arranging groups of ideas, clustering them into 'hop-spots.' These hot spots' may be the basis of later concepts that will need developing.
- This arranging can be tentative at first, and groups may need time to rearrange items.
- Allow any individual items to standalone as in the community example below. These items may simply be different.
- When the group has clustered items into themes, ask them to draw boundaries around the themes and label them.
- Look for potential connections between the 'hot-spots.'
- If you can, ask for problem owner feedback on the shortlist.



### Resources needed

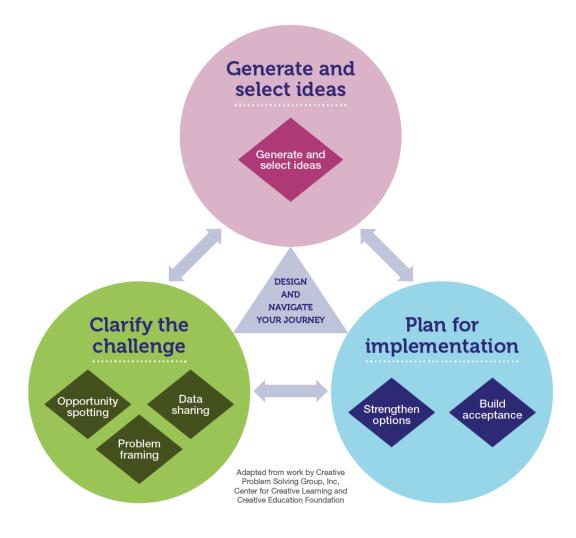
Post-its, flipchart, flip-chart pens.

#### **Facilitator Tips**

- Post-its help to rearrange items.
- Flip-chart paper for display and writing titles
- Ensure that any 'outliers' or quite different/unusual ideas are not 'lost' within clusters keep them separate, as they may be unique.

Source: Adapted from Firestein, R. and Treffinger, D. (1983). Ownership and converging: Essential ingredients of Creative Problem Solving. Journal of Creative behaviour. 17 (1), and from: Van Gundy, A. B., (1988), Techniques of structured problem solving, Van Nostrand Reinhold.

Stage 3: Planning for successful implementation



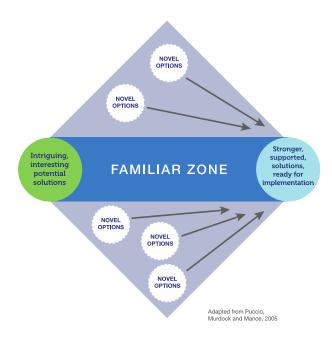
"Vision without action is a daydream. Action without vision is a nightmare."

Japanese proverb

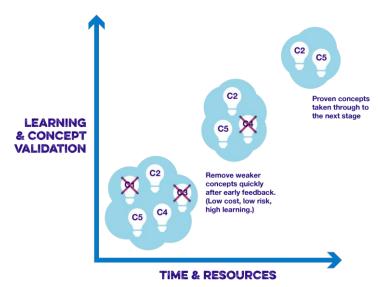
# Planning for implementation: tips from practice and research

When ideas have been shortlisted, they are often raw, promising, maybe intriguing and, almost always, undeveloped. The challenge is to strengthen, share and get feedback on these ideas, so that what you launch has been validated and is not simply your hunch.

And this stage still needs creativity, as you figure out how to communicate, pilot, pivot, adapt your ideas to make them implementation-fit:



Part of the art is not to be too attached to the ideas. As you turn them into concepts and share them, the goal is to learn fast, at low cost, and effectively. Some concepts will be rejected as your target audience says: "We don't like this, because..." Others will be validated through the feedback you receive:



The tools in this section are for the different aspects of this phase. They help you to sort and organise ideas, strengthen ideas communicate and share ideas, risk-assess ideas and to convince others.

# **Stage 3: Planning for Implementation tools**

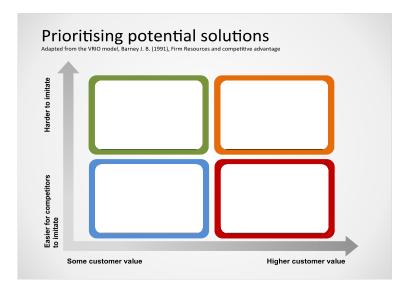
| Tool  | Value it can give   | Approxima<br>te time<br>needed | Other resources needed  |
|---|---|--------------------------------|---|
| Strategic<br>competitive<br>advantage             | Prioritising. Use this to sort 5 – 15 ideas when strong competition is driving the need for innovation. It will help you choose which ideas look more strategically attractive. | 20-30<br>minutes               | A visible space to see the template and discuss the results           |
| Novelty/ease<br>matrix                            | Prioritising and gain acceptance. Use this to sort 5 – 15 ideas when scarce resources for implementation are an important issue.  | 20-30<br>minutes               | A visible space to see the template and discuss the results           |
| Criteria and<br>Evaluation<br>matrix              | Prioritise and strengthen options. Use this to sort between 5-10 potential solution and reduce them to 2-5 more promising ones.   | 20 – 30<br>minutes             | Paper for charting and showing scores to everyone. Pens.              |
| 2 x<br>Implementation<br>checklists               | Strengthen options. These tools generate an initial list of what to consider helping you plan. A good starting point.   | 20-30<br>minutes               | None  |
| Advantages,<br>limits, unique<br>qualities (ALUo) | Strengthen options. Where you want to strengthen a small number of potential solutions. Also, likely to deepen understanding of the remaining ideas and develops them further   | 30-40<br>minutes               | 2 – 4 shortlisted ideas   |
| Concept<br>creation                               | Elaborating your idea and communicating it to your target group. Getting feedback on the idea.  | 3-40<br>minutes                | One concept best done by a pair of people.                            |
| Prototyping                                       | Adding a visual component to your idea, to communicate your idea and secure better-quality target-group feedback.   | Depends on approach            | Materials (could be digital) to create the prototype                  |
| Triangulation                                     | Gain acceptance. This too helps you hone your arguments, so that you are more persuasive.   | 20 minutes                     | At least 2 x role players, and at least one observer.                 |
| Moving argument                                   | Getting instant feedback about your arguments for your ideas.   | 10-15<br>minutes               | At least three people   |
| Supporters and resistors (help/hinder)            | Gain acceptance. This tool helps identify the people who might help or hinder your idea implementation.   | 30 – 45<br>minutes             | Flipchart or whiteboard for charting a table. Pens.                   |
| Changing shoes                                    | Strengthen options. This helps you anticipate the arguments of important others and developing your counterarguments.   | 20-30<br>minutes               | Flip-chart paper<br>and coloured pens<br>– make it visible to<br>all. |
| Bullet proofing                                   | Strengthen options. This too identifies aspects of your plan that may be vulnerable   | 15 – 30<br>minutes             | Pen and paper for recording.  |
| People Power                                      | Gain acceptance. This helps you analyse were risks and power lie in complex situations. It helps you to prioritise your persuasive efforts.                                     | 30 minutes                     | Flip-chart paper<br>and coloured pens<br>– make it visible to<br>all. |

| Tool          | Value it can give  | Approxima<br>te time<br>needed | Other resources needed                           |
|---------------|--|--------------------------------|--|
| Business case | Synthesising your argument to be able to persuade people to say 'yes' to your idea, and resource it appropriately. | Depends on complexity          | One business case best done by a pair of people. |

The following pages describe how to use each of these tools.

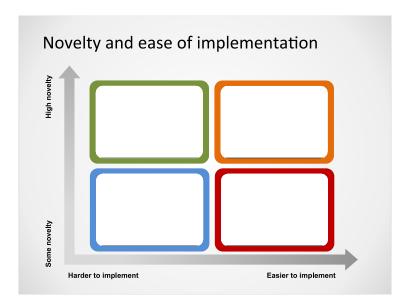
# Strategic competitive advantage

How much might your idea for a new product, service, market, business model, etc be both valuable for service users and harder to imitate for your competitors? The more it meets both needs, the more desirable the potential solutions. Plot your current shortlisted solutions onto the template below, and review to discuss which options look more desirable.



# Novelty/ease matrix

Use this to sort ideas when resources for implementation are an issue. Plot your current shortlisted solutions onto the grid below, and review to discuss which ideas look feasible and desirable.



### Criteria and Evaluation matrix

The Evaluation Matrix is primarily a converging tool, (although it also has an early diverging stage). It will help you to systematically analyse several potential solutions and then prioritise which you will develop further.

As well as helping you choose will potential solutions to develop further, it also helps build consensus in a group, as you evaluate solutions against agreed criteria.

- Generate a list of the criteria. Using the prefix: "Will it..." can help. Isaksen et al (2011) suggest the acronym CARTS to stimulate the generation of criteria: Costs, Acceptance, Resources, Time, and Space. Some criteria may be more explicit - budgets, for example, others may be more implicit – perceptions or perspectives from important people involved.
- Choose the most important criteria around 5-7 should be enough.
- Phrase the criteria so that they are parallel and positive. For example, write it as "Will it be within our budget?" rather than "Will it be too expensive?" (A higher score should be a positive result!)
- Make sure that the criteria are different enough to each other. Consider merging any that are similar.
- Once you have your agreed list, create a matrix with solution options running down the side and agreed criteria across the top. Agree a scoring system for each criterion, say from 1-6, with higher being a better score. Leave a total column on the right-hand side for adding up scores.
- Complete the matrix, one column at a time, so that you are comparing options against each other as you progress. This aids objectivity and focus.
- Complete the matrix, add the scores, and compare results. Use the results as a basis for further discussion, rather than as a final decision. Can any ideas be strengthened quickly, and would that change the scores?
- Agree on which ideas to take forward.

#### Origins:

Scriven, M (1959), The logic of criteria, Journal of philosophy Parnes, S (1967), Creative behaviour Guidebook, New York, Scribner Isaksen et al (2011), Creative approaches to problem solving, Sage

### 2 x implementation checklists

#### List 1:

- **Resources** are the resources (time, personnel, equipment, money, information) sufficient for executing this idea?
- Motivation, are there others with equal motivation and commitment required for successful implementation?
- Resistance, is the idea likely to come across any 'closed thinking' and/or resistance to change in general?
- Procedures, are there any procedural complications that could get in the way?
- Structures, are there any structural obstacles to surmount (e.g., bad communication channels)?
- **Policies**, what official/unofficial policies need to be overcome?
- Risk, will risk taking be tolerated by those responsible for implementation and if so to what level?
- Power, do any power struggles exist relating to the idea that might obstruct implementation?
- Clashes, are there any clashes of personalities that may hinder advancement in the implementation?
- Climate, is the organisational environment one of teamwork and co-operation or suspicion and distrust?

Source: Van Gundy, A. B., (1988), Techniques of structured problem solving, Van Nostrand Reinhold

#### List 2:

- **Relative advantage** how much better than previous approaches is this idea?
- Compatibility is our proposed approach consistent with our values, experiences and needs?
- **Complexity** how easy is our approach to understand and use?
- **Trialability** can our approach be experimented with, on a limited basis?
- **Observability** how clear will the results be to others?

Source: Isaksen S., Dorval, B., and Treffinger, D., Creative approaches to Problem Solving. (2000). Kendall/Hunt

# Advantages, limitations, unique qualities and overcoming limitations (ALUo)

Where you want to look at the pros and cons of a few shortlisted ideas, this can be a helpful tool. Ideally, you want to compare between 2 – 4 ideas.

- Select the 2-4 ideas you want to consider.
- Use flip-chart paper and, for each idea, list all the advantages you can identify. What makes them attractive and appealing?
- When you cannot think of any more advantages, write the potential flaws and weaknesses for each idea.
- Next, write what is unusual and potentially unique about each idea.
- Finally, write down how would you overcome the limitations of each idea.

Using this approach can highlight the differences between ideas. This can help you choose to develop them further, not pursue them, prioritise them, and build a business case and implementation plan for the ideas you like.

Source: Isaksen, S., Dorval, K., and Treffinger D. (1994), Creative approaches to Problem Solving, Dubuque, Iowa, Kendall/Hunt

#### ALUO: Advantages, Limitations, Unique qualities and **Overcoming Limitations**

| Brief idea description<br>(In 50 words<br>maximum, describe<br>the idea.)                                  |  |
|--|--|
| Advantages<br>(Identify the strengths<br>and positive aspects of<br>the idea.)                             |  |
| Limitations<br>(What are the potential<br>concerns or challenges?<br>Phrase these as questions:<br>How to? |  |
| Unique Qualities<br>(What is potentially novel<br>and unique about<br>the idea?)                           |  |
| Overcoming Limitations<br>(List ways to overcome<br>the strongest limitations.)                            |  |

Click here for a short video on Advantages, limitations, unique qualities and overcome limitations and download the ALUO worksheet template.

# **Concept creation**

When you want to share your concept and get feedback, this can be a helpful tool. It helps you to elaborate your idea, making it clearer and more understandable. It can also help you to get specific feedback from your target group.

- Select the chosen ideas you want to turn into concepts
- Complete a template, like the one below, include items such as:
  - Concept name and slogan.
  - o The 'friction' for your target group: what they do/their role/work; what they want; why they cannot get it. (Write this in first person.)
  - Describe the concept briefly, including how it works.
  - Describe the benefits for the target group.
  - Outline any cost, and how the target group can access the concept.

Once written, the concept description can be shared with a selection of people in your target group. It is their feedback that matters most.

| Concept name   |  |
|--|--|
| Catchy Slogan  |  |
| This is the situation  |  |
| Describe the situation, the actual target group needs, and his/her frictions. (Write this in the first person) |  |
| I am   |  |
| I need   |  |
| But  |  |
| This is the concept  |  |
| Describe the concept in plain language   |  |
| What is the concept?   |  |
|  |  |
| How does it work?  |  |
|  |  |
|  |  |
|  |  |
| <ul> <li>What is the benefit to the<br/>target group?</li> </ul>   |  |
| 20 20  |  |
|  |  |
|  |  |
| What does it cost?   |  |
|  |  |
| How can I get it?  |  |
|  |  |
|  |  |
|  |  |

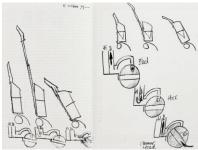


Click here for a short video on creating and developing concepts.

# **Prototyping**

Prototypes are small-scale, visual mock-ups of products, services, processes, or business models, designed to test the validity of an idea.

Prototypes might be lo-fidelity examples, which are lower cost, less realistic examples of the concept. Like the examples below, these could include sketches, storyboards, product mockups, or role plays of service interactions.









Hi-fidelity examples are more realistic, might cost more to produce, and are likely to be created in later stages of concept development. They might include videos of the concept, physical installations – so people can 'experience' the idea in action.



Prototypes can be visual complements to more text-based concept descriptions. The point is to use them to gather systematic feedback from your target audience.

# **Triangulation**

A major part of getting an idea implemented is the Big "P" – **Persuasion.** William James once said, "There are six people in every two-sided conversation – You as seen by yourself, you as seen by the other person, and you as you really are." The Triangulation technique helps you to maximise the possibility of getting buy-in for your idea by enabling you to see critical meetings and discussions from these three separate perspectives: your own, your counterpart's, an observer's.

By looking at these situations from multiple perspectives you can anticipate reactions, envisage conversations, arguments, and counterarguments from three valuable but different positions. As a result, you can proactively develop appropriate and effective strategies of persuasion.

There are many variations on this technique; the process described below is suitable when you are working with a group of three or more people.

Step 1. You need to persuade a Senior Manager/ your boss that your idea is a good one and you need to get their buy-in and commitment to secure resources to implement it. In this first role play you will play yourself, and another member of the group will play the Senior Manager/your boss. You need to give this group member information about the Senior Manager so that they can role play this person and simulate their reactions to the proposal(s) you will make. You also decide where the meeting takes place, what time of day and any other details you think could be useful to make the role play as "real" as possible. The rest of the group will play the role of silent and neutral observers.

You and the other group member role play the meeting. At the end, one of the observers debriefs it by asking questions to both you and the role-playing Senior Manager. The neutral observers then give their own feedback. Typical questions are:

- How do you feel right now? How do you feel about the meeting? Did anything surprise you?
- Did it go according to plan? Did you achieve your objective(s)? What did you learn?
- What would you do differently next time?

Step 2. You role play the meeting now as the Senior Manager / your boss, and another group member will play your role. Follow the same process as before and debrief as before.

Step 3. You now play the role of neutral observer, and other group members play your role and that of the Senior Manager / your boss. Follow the same process as before and debrief as before.

Source unknown

## **Moving Argument**

In a variation on triangulation, this gives immediate feedback to the problem owner on the strength of their argument.

Where the implementation involves explaining, informing, and persuading people of the merits of an idea, here is a simple technique for practising your case in a safe environment.

Set up two chairs facing each other and about ten feet apart. On one chair, someone sits and advocates the change being suggested: the need for it, the advantages of this solution, how people can benefit. On the other chair someone takes the role of a stakeholder from the organisation who will be affected by the change. They argue their case as they see fit.

The rest of the group move along a continuum between the two people, depending on whose argument convinces them more. As one person makes a strong point, so people may move nearer that person; if the other person makes a strong point, the audience will move back towards that person. The audience's movement is a form of feedback useful for preparing for the real debate.

Source: Alan Margolis, Creative thinking consultant: www.hampsteadtraining.com

## **Supports and resistors**

This is a simple and useful tool for the stage of gaining acceptance.

- Ask people to call out the people and things that can help or hinder implementing the plan. Write everything up, somewhere visible.
- Facilitate the group to select two or three priorities 'helps' and two or three priority potential hindrances.
- Chart them, using a table, as shown below.
- Ask the group for ideas on how to gain the support of the key helpers, and, at least as important, to overcome those who might hinder the scheme progressing.
- Discuss these ideas and write as a potential action plan.

|   | Helps | Hinders |
|---|-------|---------|
| Exploration – who, what, etc.                   |       |         |
| Action planning – How?<br>When? Where? Who? etc |       |         |

Origins: This is an adapted tool, including from Henry and Martin (1997), Creative Problem-solving Guide, Open University

# Changing shoes

This is a useful technique for anticipating any objections that may be made by various stakeholders.

- Make a list of the three best arguments in favour of this solution. You can do this as individuals and then pool your thoughts, or you can work on this as a group. Write each argument on a separate piece of flipchart paper.
- Look at each argument and write underneath it the best objection you can make to it.
- Now look at them again and write underneath each objection the best way you can think of countering it.
- Now return to the original solution you are proposing and prepare to argue exactly the opposite case. For example, if you are proposing to increase staff levels then note down the three best arguments you can think of for reducing staff levels. Write each one on a separate piece of flipchart paper as before.
- Go through the same process as in (2) and (3) above.
- Place in front of you the six flipchart papers with all the arguments that have been put forward in the activity, the objections, and the counter arguments. Let your eyes wander over these at random and you will gain fresh insights into any potential weaknesses in the suggested problem solution.

Source unknown

# **Bullet proofing**

The aim here is to identify aspects of your plan that are vulnerable. Ask yourself questions like: what could go wrong? What unexpected hurdles might arise? What is the worst thing that could happen? Record your thoughts on a table such as this one below. Your focus will be on the top right-hand corner – things are likely to occur and would cause a major problem for you and your team. Having identified your areas of concern, use other problem-solving approaches to solve them.

|                               |                 | How likely to occur? |             |
|-------------------------------|-----------------|----------------------|-------------|
|                               |                 | Less likely          | More likely |
| If it did occur, it would be: | A major problem |                      |             |
|                               | A minor problem |                      |             |

Adapted from: Kepner, C. and Tregoe, B. (1976). The Rational Manager, Princeton, N.J.

### **People Power**

People have the potential to ensure that your proposed solution is implemented and is a resounding success. They also have the potential to have the opposite effect. This technique is a way of putting some structure on what you might be feeling intuitively and of making sure you target the most appropriate people with clear objectives in mind.

- Draw a table with eight columns the last column should be the widest. List the key stakeholders involved in the implementation of your proposed solution and write them in the first column under the heading "Stakeholders" - this will also give you the number of rows you need.
- Write "Impact" at the head of the second column. Assess the impact that each stakeholder could have on the implementation of your proposed solution as High, Medium or Low and write the appropriate word next to the name as you work your way down the column.
- In the headings of columns three to seven, write the following words: Completely against, fairly unsupportive, neutral, fairly supportive, completely in favour. Or you could write the following percentages if you prefer, indicating support: 0%, 25%, 50%, 75%, 100%. Now go down the column of names again and put a cross in the column which, to the best of your knowledge, best describes this stake-holder's current position.
- When each stake-holder has a cross level with his / her name in one of the columns, go back through the list again and consider how far to the right you could realistically move them and where you would ideally need them to be; in other words, how far do you think you could persuade them to support you, and put a tick in this square.
- Now review what you have and identify your key targets. That is to say, the person or people who have a high impact on whether your implementation is successful and who are far to the left in your table, i.e., completely against or unsupportive. Now, in the final column, number eight, write the word "Action" as a heading and discuss and decide how you are going to move your key and problematic stakeholder from his / her current position to the position which you have indicated with a tick and which you realistically think you can persuade him / her to move to.

By concentrating on the stakeholders who are both key and likely to be against the proposed solution, you can target your resources and your energies for maximum effect. It is important not to neglect those who have low impact and are already in favour of the solution - you simply do not have to spend so much time on them, which is often the temptation as they are easier to deal with!

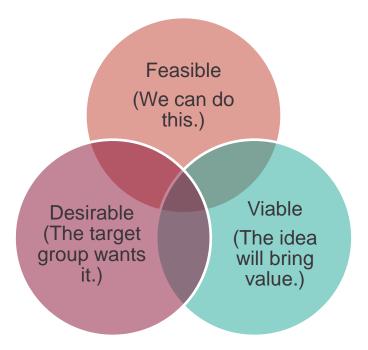
Adapted from: Mason R., and Mitroff, I. (1981), Challenging Strategic Planning Assumptions, New York, Wiley

# Writing a business case

You may need to write and present a business case to persuade senior people to support the idea to implementation.

When your idea has been strengthened, shared, and received positive feedback from your target group, you can put a business case together with the following components:

- Outline the idea and explain how it meets a 'friction' or 'pain-point' for your target group: something they want but currently cannot get.
- Outline the idea briefly your audience will not know it as well as you.
- Is the idea desirable? Share the positive feedback from people in your target group. Compare your position to your competitors, or alternative suppliers. Be market-focused
- Is it feasible? Can you make it? Do you need partners outside the organisation, to bring specific skills or expertise? Be operational focused here.
- Is it viable? Is it worth pursuing? Does it bring you margin, profit, turnover, new markets, social impact, or other forms of value? Be commercial focused here.
- What are the implementation factors: team composition, potential launch date, development costs, risks.
- Outline the reasons to say 'Yes!'



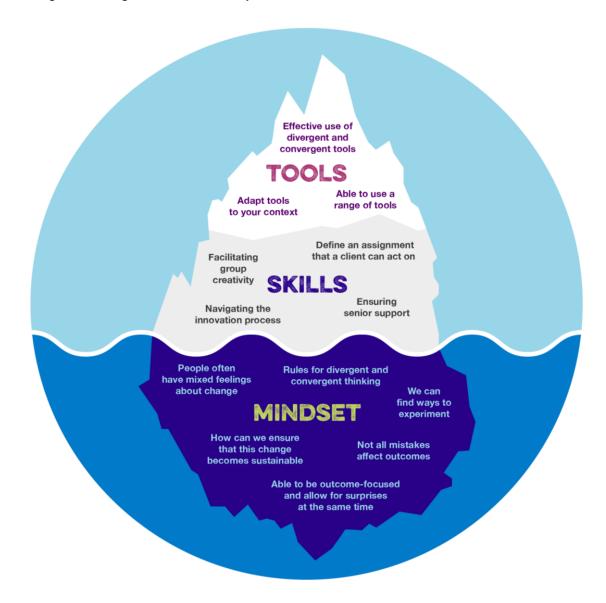
A well-pitched business case combines creativity with operational pragmatism and commercial thinking. Do not hide the risks and the uncertainties. Do pitch the strong benefits to be gained. And do convey your enthusiasm for the case.

Click here for a short video on: Writing a business case and slides to support this stage.

# Facilitating creative problem-solving

It takes real competence to help groups learn to turn ideas into value. And everything in this toolkit is highly learnable.

Looking at the diagram below, broadly:



- The tools will be the most apparent to the group, as you use them. You will need to learn to:
  - o Use tools that suit the challenge, rather than just using the ones you like!
  - Use both divergent and convergent tools.
  - Adapt the tools to your context.
- The skills might not be noticed so obviously but are key. They take practice and reflection to develop, and can include:
  - Working with the group through the process, as they experience highs and lows.
     Your role is to stretch them beyond their comfort zone, so they explore rather than retreat.
  - o Working with the client to clarify an innovation assignment they really need.

- Securing senior support for ideas that might transform a service, market, business, etc.
- Knowing your way through the innovation process.
- Underpinning all of this is a healthy **mindset** for innovation. Without this, the tools and skills are not enough, and work tends to stop when challenges are encountered. This can include:
- Finding ways to experiment where the consequences of failure are minimised.
- Applying the four rules for both divergent and convergent thinking.
- Being focused on desired organisational outcomes and open to being surprised by the process of getting there.
- Planning for sustainable change that can spread to other areas.
- Acknowledging that change is a complex and emotional process, and that people often have mixed feelings: excitement about possibilities and anxiety about uncertainties; pride about results and sadness about what is changed. Surface and identify these mixed feelings - you will find that people will develop a more nuanced approach to change, and more flexibility in their approach.

# **About the West of England Academy**

The West of England Academy provides a range of free resources to help you gain knowledge and develop essential skills for innovative thinking and working. We promote the use of quality improvement methodologies to support delivery of better patient care.

We run free learning events across the West of England and offer online resources and toolkits available for download, as well as bespoke support for those needing specialist advice on our services. Follow the links below for more information. All our resources, events and services are free. Explore our resources and toolkits and view our one pager summary of what's on offer.

If you want guidance on the use of these resources or have suggestions, questions or want to discuss your project, please email weahsn.academy@nhs.net.