Creative Problem Solving Toolkit

Generate and select ideas

Generate and select ideas

DESIGN AND NAVIGATE YOUR JOURNEY

Clarify the challenge

Opportunity spotting

Data sharing

Problem framing

Plan for implementation

Strengthen options

Build acceptance

Adapted from work by Creative Problem Solving Group, Inc, Center for Creative Learning and Creative Education Foundation

"You can't use up creativity. The more you use, the more you have."

Maya Angelou

Contents

Introduction

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.

This toolkit 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'll want the group you are working with to be creative in its thinking. And a group is needed because the challenge is too complex for one person.

In the 1950s, Alex Osborn and Sidney Parnes conducted extensive research on the steps that are involved when people solve problems. In 1954, Osborn set up the Creative Education Foundation. It is one of the oldest institutions involved in the formal education, advocacy and advancement of creative thinking:

https://www.creativeeducationfoundation.org/
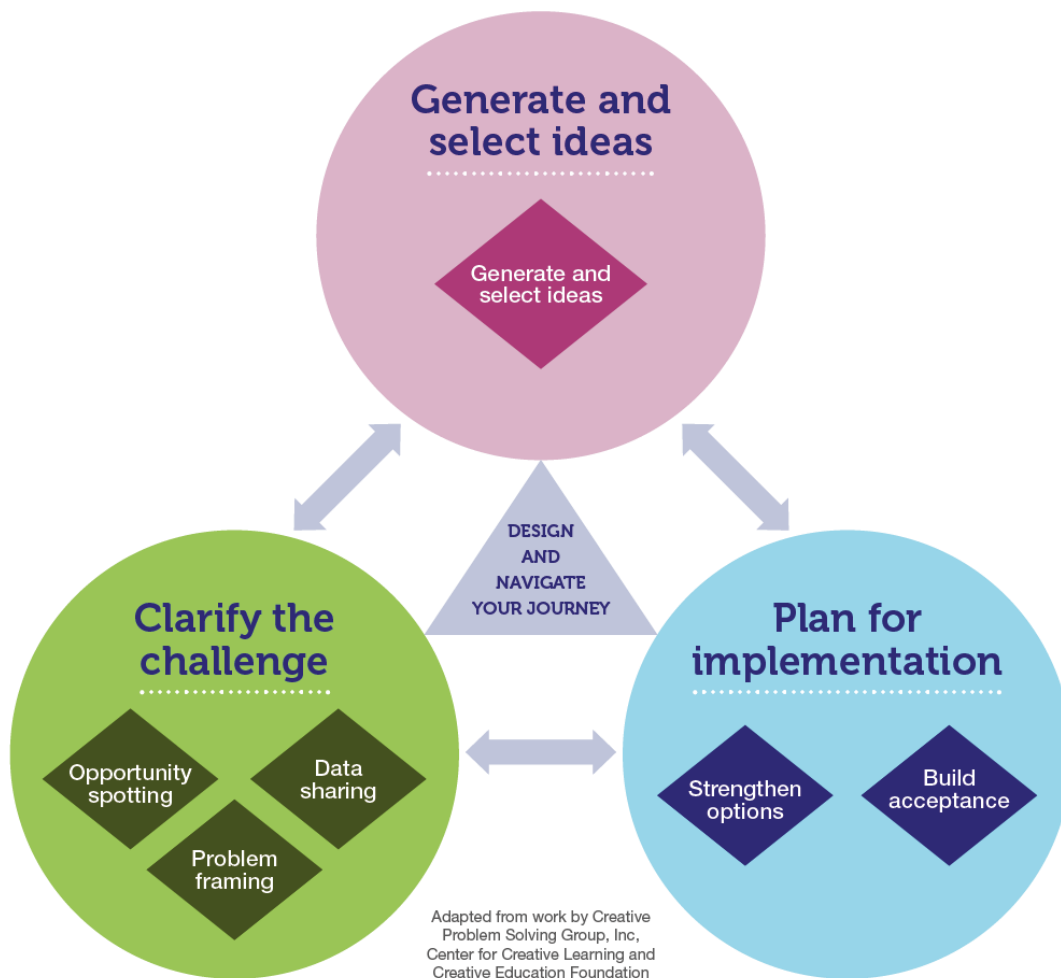
They describe their mission as:

> *The Creative Education Foundation is the Centre for Applied Imagination – helping individuals, organizations and communities transform themselves as they confront real-world challenges.*

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.

The 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 pulled together by Dr Rob Sheffield from Bluegreen Learning, and adapted for the West of England Academy.

Process - Creative Problem Solving: toolkit and techniques

A framework for the creative problem solving process

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select ideas

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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 at stage 1: exploring the challenge.

- On occasions, the problem will be very clear and what is needed is many, varied and unusual ideas, both generated and 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 planning a pilot to test the solution. This is ripe for stage 3 of the framework: planning for successful implementation.

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're 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.

Adapted from Puccio, Murdock and Mance, 2005
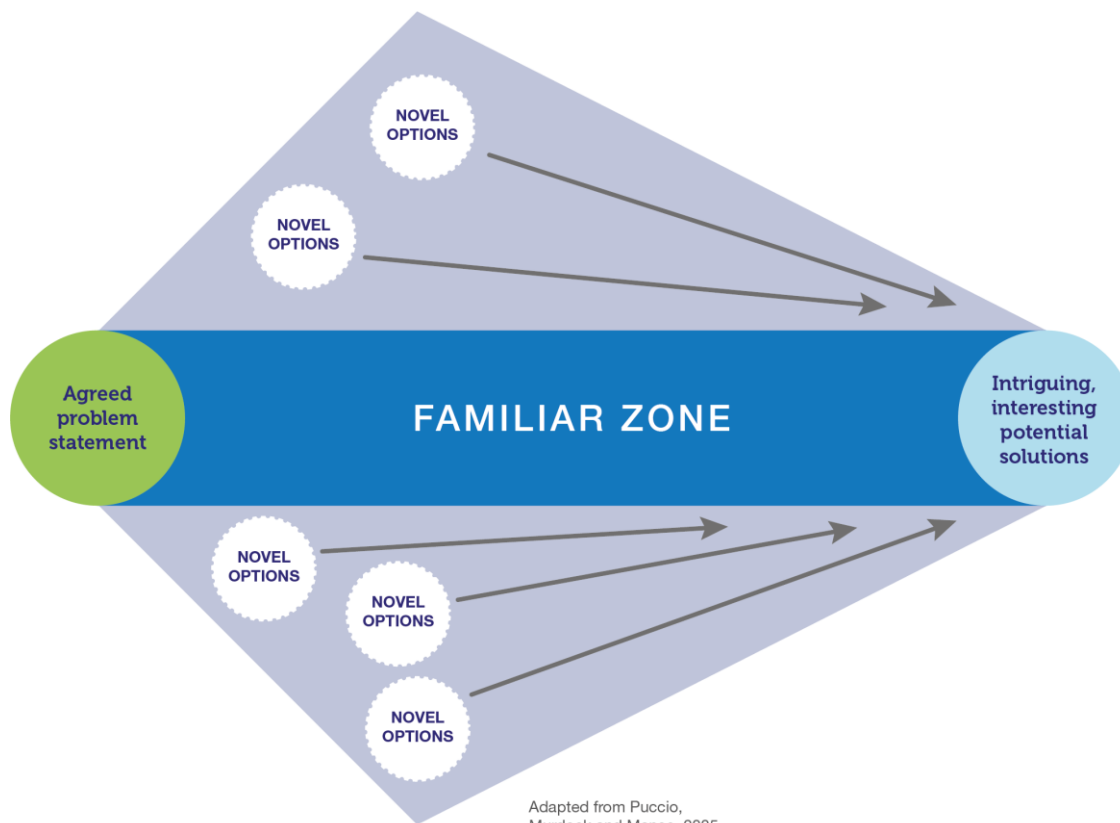
A fundamental rule: separating divergent and convergent thinking

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.

4 rules for generating options*:

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

4 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'.
3. **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…

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

Tools vs techniques

Let's 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 and 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.

The Creative Problem Solving Process - Stage 1
Clarifying the challenge

Adapted from work by Creative Problem Solving Group, Inc, Center for Creative Learning and Creative Education Foundation
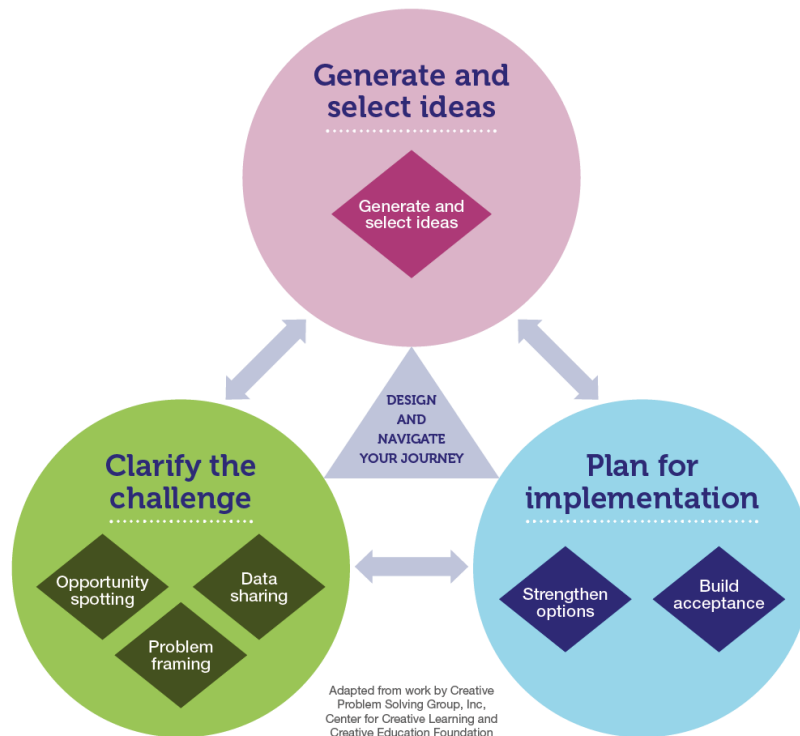
"If I had only one hour to save the world, I would spend 55 minutes defining the problem and 5 minutes finding the solution."

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've solved a problem, only for it to re-appear, like a bump under the carpet?

Or believing you've 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'll increase your odds of doing it imaginatively.

Adapted from Puccio, Murdock and Mance, 2005
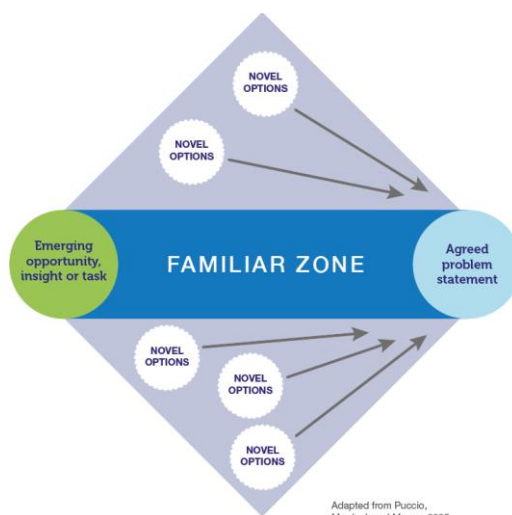
How will you know that you've done this part well? You'll balance the tension of having a focus on the right work challenge, with an openness about how you get there.
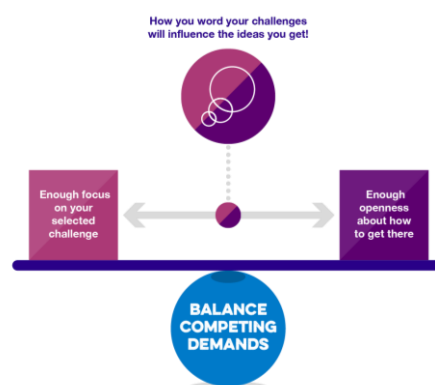
And the pay-off from developing these skills can be substantial:

"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've 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-right-problem

Stage 1: Problem exploration and definition tools

Tool	Value it can give...	Approximate time needed	Other resources needed
Rich Pictures	Getting an initial overview of a problem. Also, for understanding the different points of view about a complex situation.	40 minutes	Flip-chart paper and coloured pens – make it visible to all.
Six Universal Questions	Investigating many aspects of the problem.	20-30 minutes	Flip-chart paper and coloured pens – make it visible to all.
Why? Why? 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 Orientation	Understanding the different aspects of a problem. Apt when you when a logical, structured way of thinking about the problem.	20-30 minutes	Flip-chart paper and coloured pens – make it visible to all.
Web of Abstraction	Making broad, abstract challenges more specific and concrete. (Or to make challenges that are too narrow and specific become more broad and general.) It helps the group decide on the apt level of abstraction needed for the task.	20 minutes	Flip-chart paper and coloured pens – make it visible to all.
Boundary Examination	Isolating the most important parts of the problem and re-thinking these to change the focus of the problem itself.	20 minutes	Flip-chart paper and coloured pens – make it visible to all.

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's 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 feels 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
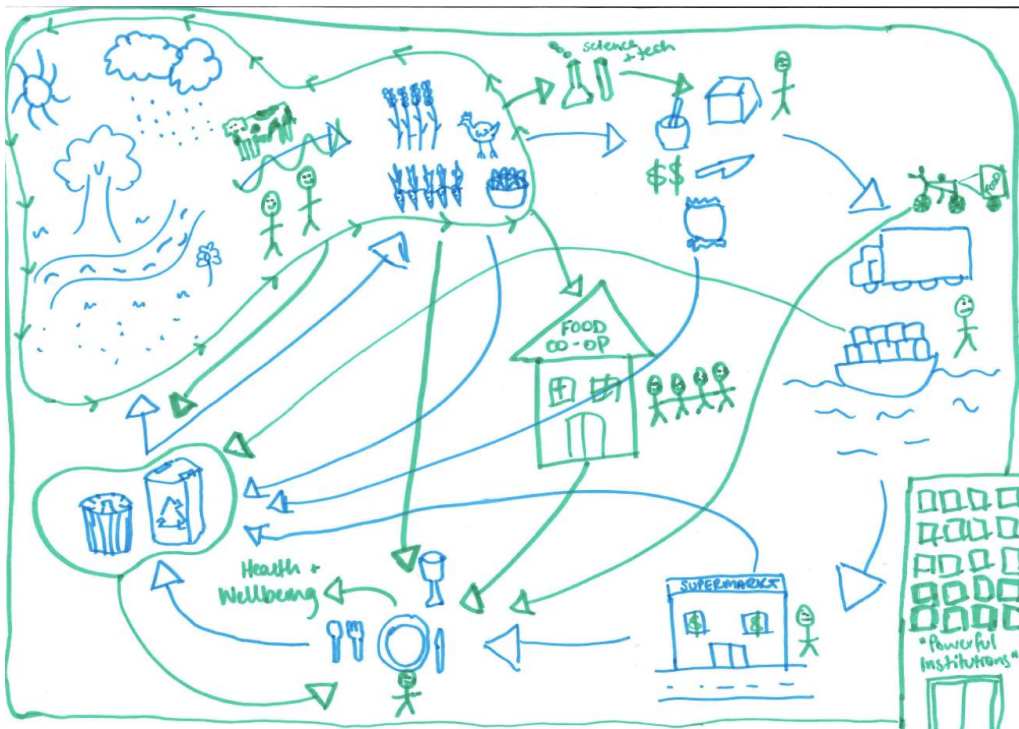
Grant, M et al. Sep 2019, The Rich Picture Method: A Simple Tool for Reflective Teaching and Learning about Sustainable Food Systems. Sustainability.

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

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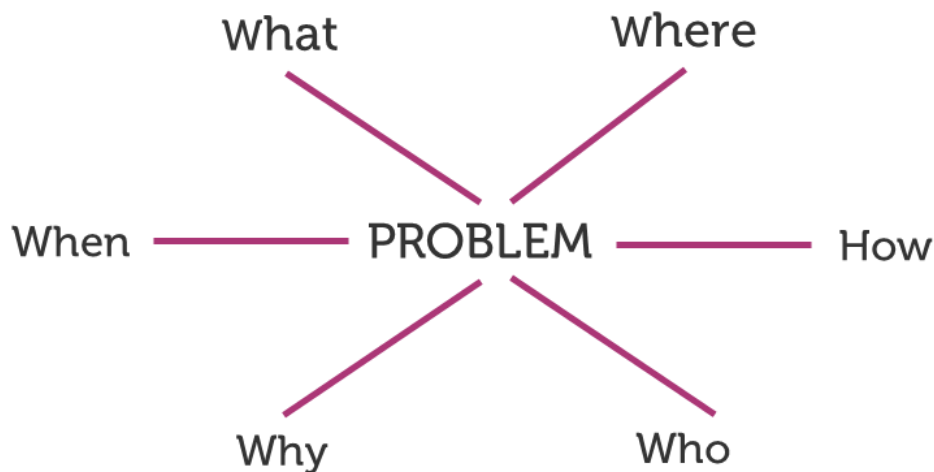
Source: Van Gundy (1988) Techniques of Structured Problem Solving, Van Rostrand Reinhold.

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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 has to 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.

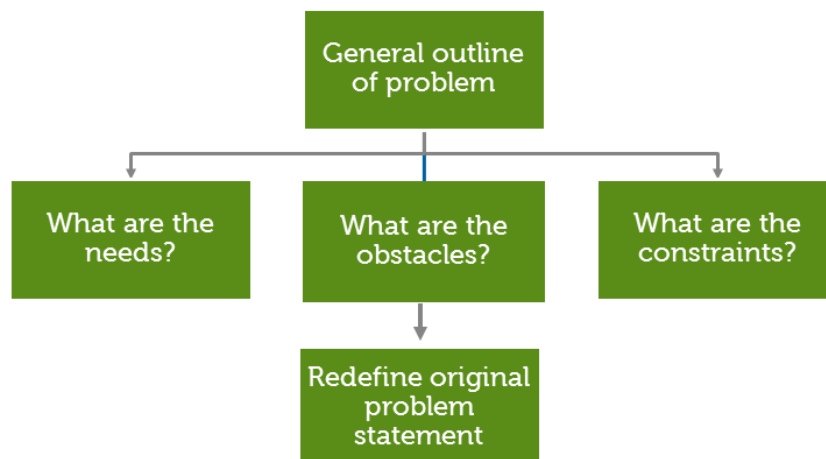You could also agree that the problem owner may say "Pass" if they do not want to answer a specific question for whatever reason.

At the end of this activity the group may be in a position 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

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Goal Orientation

```
        ┌─────────────────┐
        │ General outline │
        │   of problem    │
        └────────┬────────┘
    ┌────────────┼────────────┐
    ▼            ▼            ▼
┌─────────┐ ┌─────────┐ ┌─────────┐
│ What are│ │ What are│ │ What are│
│ the     │ │ the     │ │ the     │
│ needs?  │ │obstacles?│ │constraints?│
└─────────┘ └────┬────┘ └─────────┘
                 ▼
            ┌─────────────┐
            │Redefine original│
            │   problem    │
            │  statement   │
            └─────────────┘
```

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 specifies what restrictions must be accepted in order to solve the problem (constraints).

- On the basis of all the information generated by addressing the questions in points 2 and 3, the group writes down possible redefinitions of the original problem statement, beginning "How to …..?"

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

Back to Stage 1 tools

Web of Abstraction

- Explain the purpose of this task: to help explore and define appropriate problem statements, using different levels of abstraction. We're 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 flip-chart, 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.
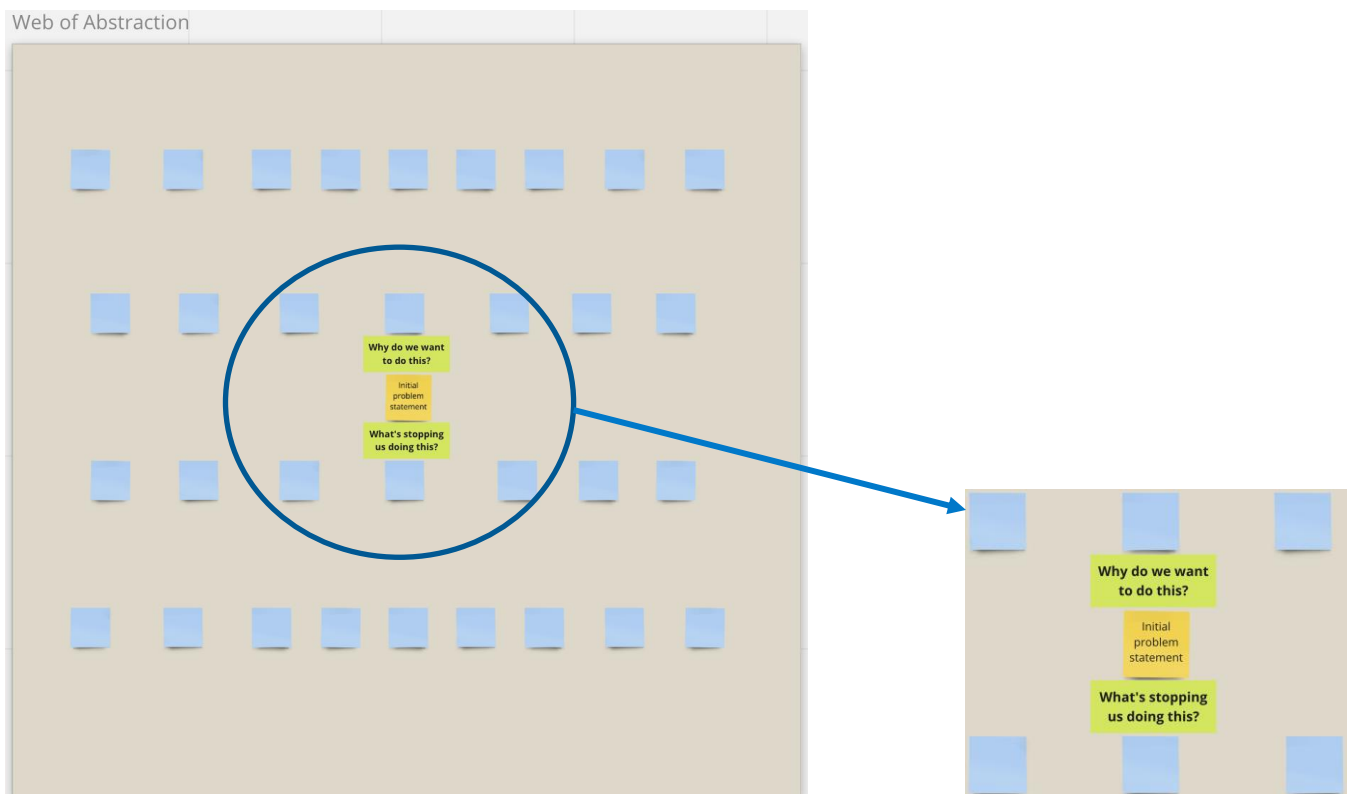
Boundary Examination

- Write out the problem statement, visible to the whole group, beginning "How to….".

- Underline the most important words and phrases. (The client can do this, if present. If not, allow the group to do it.)

- Examine each underlined word or phrase in turn for assumptions and possible connotations. In the example below, 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
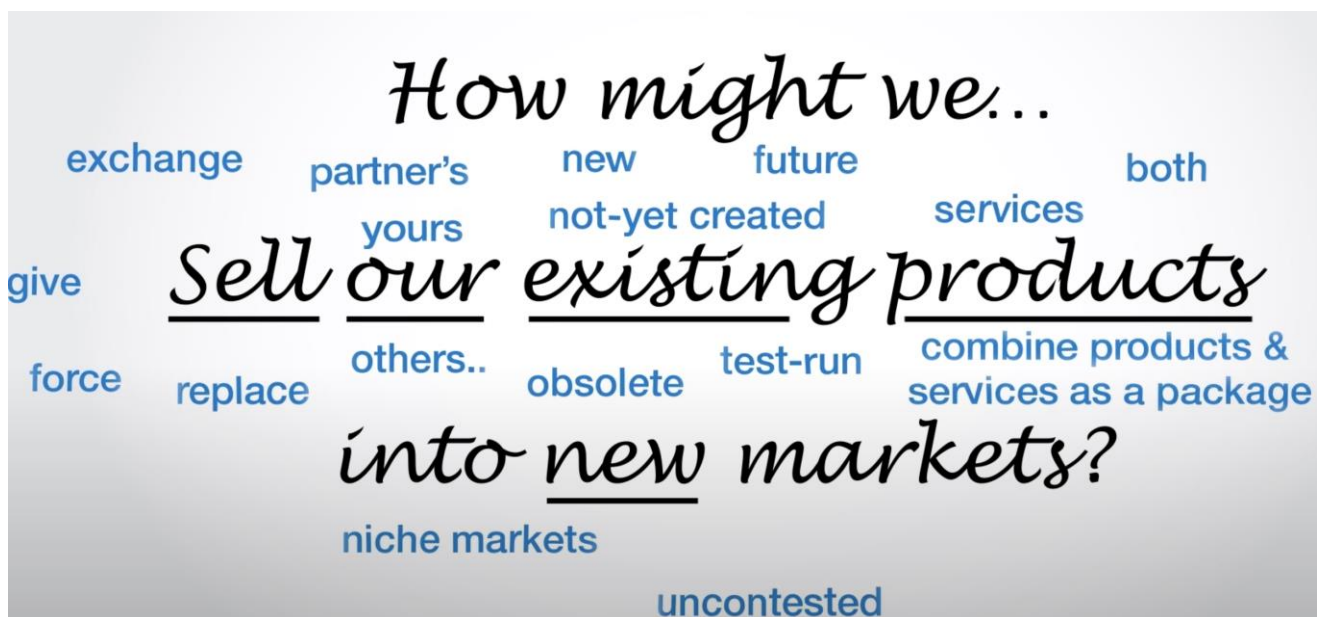
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The Creative Problem Solving Process - Stage 2
Idea generating and idea selecting

Generate and select ideas

Generate and select ideas

DESIGN AND NAVIGATE YOUR JOURNEY

Clarify the challenge

Opportunity spotting

Data sharing

Problem framing

Plan for implementation

Strengthen options

Build acceptance

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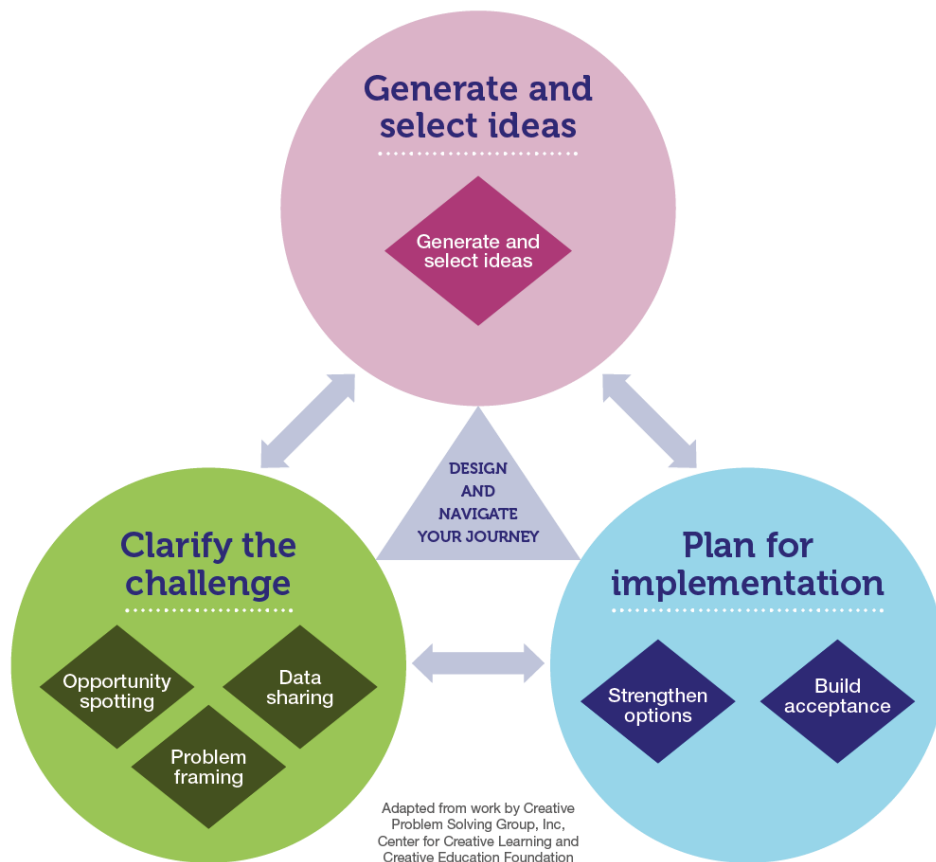
"The way to get a good idea is to have lots of ideas and throw away the bad ones."

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 don't 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.
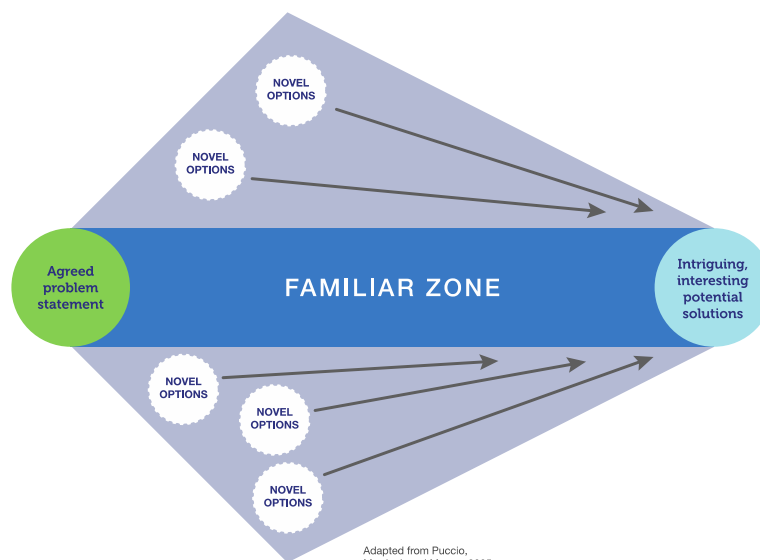
- Encourage novelty. Generally, it is easier to make a very novel idea into one that is also feasible, then to turn a feasible idea into something also novel.

- 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.
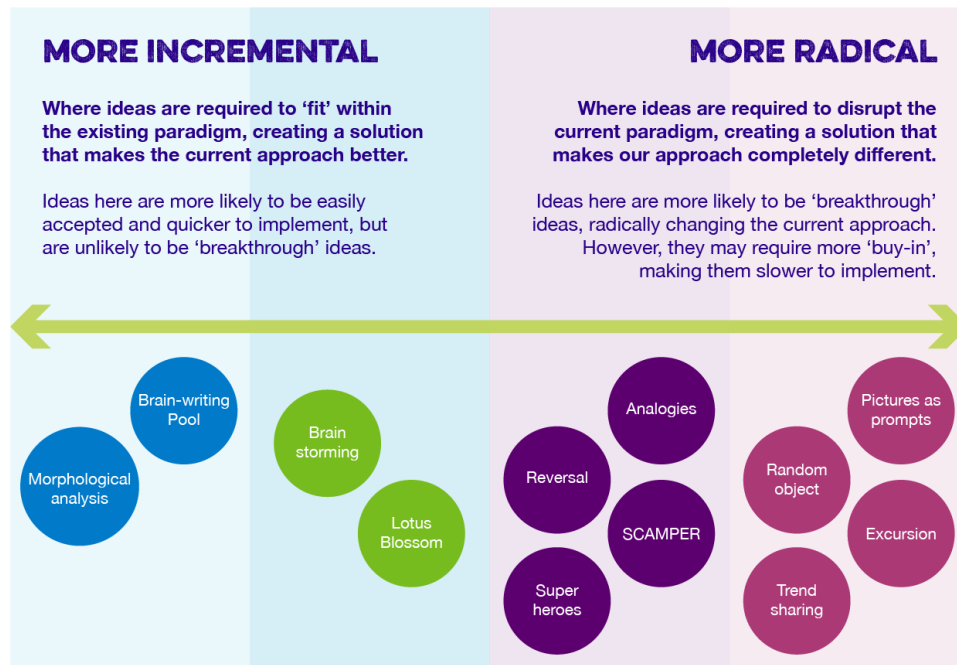
Leverage group diversity

- Aim to build individual and group activities into 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.

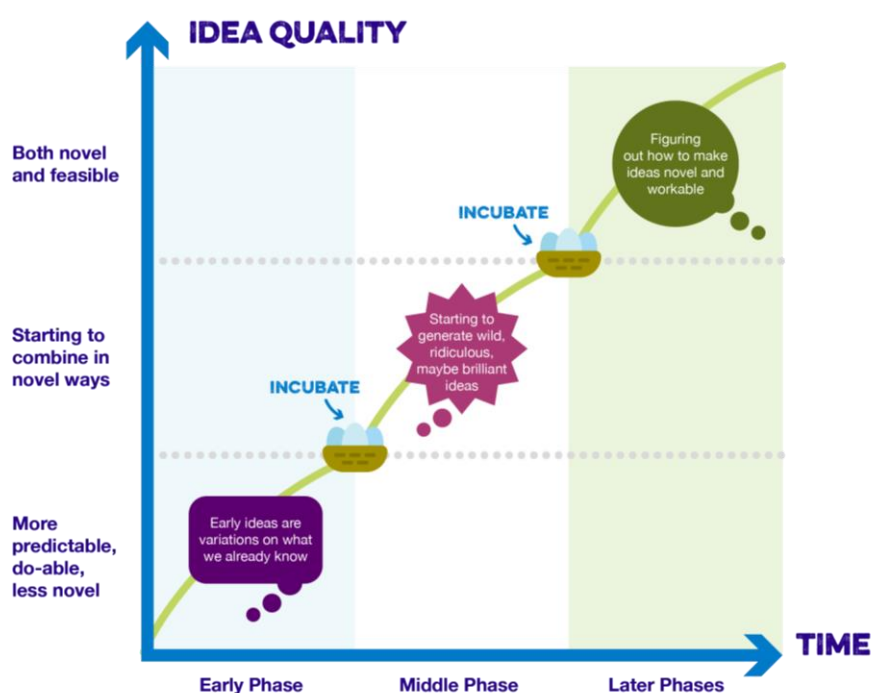## Facilitator role

- 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:

NOVEL OPTIONS

NOVEL OPTIONS

Agreed problem statement

FAMILIAR ZONE

Intriguing, interesting potential solutions

NOVEL OPTIONS

NOVEL OPTIONS

NOVEL OPTIONS

Adapted from Puccio, Murdock and Mance, 2005

- 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.

MORE INCREMENTAL

Where ideas are required to 'fit' within the existing paradigm, creating a solution that makes the current approach better.

Ideas here are more likely to be easily accepted and quicker to implement, but are unlikely to be 'breakthrough' ideas.

MORE RADICAL

Where ideas are required to disrupt the current paradigm, creating a solution that makes our approach completely different.

Ideas here are more likely to be 'breakthrough' ideas, radically changing the current approach. However, they may require more 'buy-in', making them slower to implement.

Brain-writing Pool · Morphological analysis · Brain storming · Lotus Blossom · Analogies · Reversal · SCAMPER · Super heroes · Pictures as prompts · Random object · Excursion · Trend sharing

- 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.

IDEA QUALITY

Both novel and feasible

Figuring out how to make ideas novel and workable

INCUBATE

Starting to combine in novel ways

Starting to generate wild, ridiculous, maybe brilliant ideas

INCUBATE

More predictable, do-able, less novel

Early ideas are variations on what we already know

TIME

Early Phase · Middle Phase · Later Phases

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
Morphological 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
Brainstorming (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 minutes
Lotus Blossom	Idea fluency and flexibility. This tool 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 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 minutes
SCAMPER	Idea flexibility and originality. This tool uses a wide range of creativity concepts and 'triggers' to provoke new ideas. It can be useful for stimulating many ideas, as well as different types and originality of ideas.	10 – 30 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 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

Brain-writing 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, 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.
- Without describing all the steps of the tool, broadly explain what this tool is used for. Answer any questions.
- Give a brain-writing 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 3 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 don't 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

- Brain-writing 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

- Brain-writing is more likely to produce incremental ideas. Depending on what the client needs 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

[Back to Stage 2 idea generation tools](#)

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 very likely to be incremental changes on what already exists, and may be quick, relatively inexpensive and low-risk to implement. The tool was developed by Zwicky, (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.
- Without describing all the steps of the tool, broadly explain what this tool is used for. Answer any questions.
- Ask the client to 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 3, maximum of 10 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 - for example, 112234 in the table, would be a square, ear-shaped, medium sized, ceramic material, with graded colours that was wipeable! Maybe a ceramic glaze could make the cup wipeable, like an office whiteboard. Capture all ideas.

Shape	Holding mechanism	Size	Material	Colour	Decor
1. Square	Ear-shaped	Large	Steel	Black	Personalised photos
2. Oval	Embedded saucer	Medium	Ceramic	White	Holographic images
3. Cylindrical	Standard 'ring'	Small	Disposable	Graded colours	None
4. Triangular	Nothing	Super large	Titanium	Multiple colours	Graffiti - 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

Back to Stage 2 idea generation tools

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 idea-sharing 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.
- 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: 1 idea recorded on each post-it. Then collect these initial post-its, asking the individual to say the idea out loud, and hand it to the facilitator who puts it somewhere visible to all, such as wall or flip-chart. 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. Don't continue for so long that people start getting bored; on the other hand, don't stop too soon because going that extra minute or so, making that extra effort may just be the point you need to get to in order 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 it 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

Back to Stage 2 idea generation tools

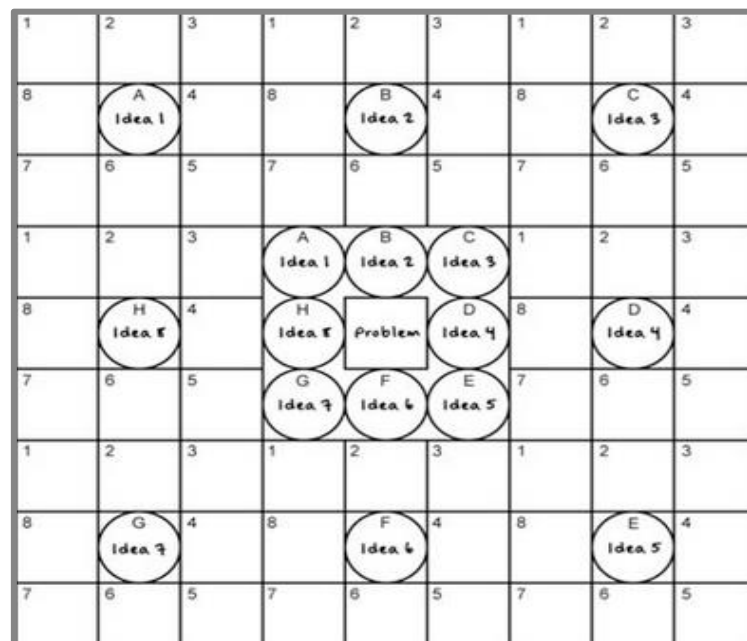## Lotus Blossom

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 idea generation tools. In relatively short time, it can help generate 72 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.
- 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 8 ideas, and place these in spaces A-H in the template. (Make sure that these ideas are different to each other.)
- Then place these 8 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 8 more ideas, prompted by each of these initial 8. This could give you 72 ideas in total. Their further ideas may be obviously connected to the initial idea, or may be very different. Anything goes.
- Continue until the template is complete, or time runs out.

Resources needed: lotus blossom template, post its

Facilitator tips:

- Ensure that the initial 8 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

Back to Stage 2 idea generation tools

Developed for West of England Academy

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.
- 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 directly 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 list.
- 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 at first glance 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 flip-chart, or ask the group to write them on post-its. Continue until ideas are finished.
- Ask the group to select a second analogy that is more distant in some way from the real challenge. Repeat the above process, ending with a further series of ideas.

Resources needed

Post its, flip-chart, 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, 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.
- 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 reduce the number of 'do not attends' might be reversed to be: "How might we ensure patients attend their appointments?"
- 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

Flip-chart, 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

Developed for West of England Academy

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 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.
- Without describing all the steps of the tool, broadly explain what this tool is used for. Answer any questions.
- Choose a question, from or similar to the checklist below, and ask it to the group.
- Ask the group to say out loud the potential new options.
- Challenge the group to consider very different, unusual possibilities. Encourage a playful search for new directions.
- Record the new ideas as they emerge, using flip-chart, 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

Back to Stage 2 idea generation tools

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.
- 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're facing.
- When you have run dry on ideas, repeat the exercise, if time allows, this time asking for a very 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 seemingly irrelevant qualities, and then 'force-fit' them back to the real 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

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Picture as Prompts

Purpose – use this tool to:

- Produce highly original ideas that go beyond the boundaries of how the challenge is currently solved.
- Bring 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 quiet 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.
- 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've 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.
- Pictures as prompts worksheets
- 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

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Random Object

Purpose – use this tool to:

- Stimulate very 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.
- 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?" and "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 flip-chart.
- If there is time and need, repeat the previous steps, introducing a different random object.

Resources needed

- At least 2 unusual objects, seemingly unrelated to the problem being discussed.
- Post-its, paper or flip-chart 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

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Excursion

Purpose – use this tool to:

- Produce highly original ideas.
- Stimulate 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.
- 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.*

  o *Mental excursion*: You may invite people to imagine they are visiting a specific environment, e.g. desert, seaside, being prime minister or doing 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's important that the facilitator doesn't 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.
- Flip-chart, 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 flip-chart, 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

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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.
- 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 1st 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 2nd 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 8 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

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Developed for West of England Academy

Idea selecting: tips from practice and research

Main principles

- Choose to focus when you have generated enough ideas. This is usually a subjective judgement.

- 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 'light-focusing'. Think of this as being careful to nurture promising, intriguing, novel ideas, while also removing any ideas that don't 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.
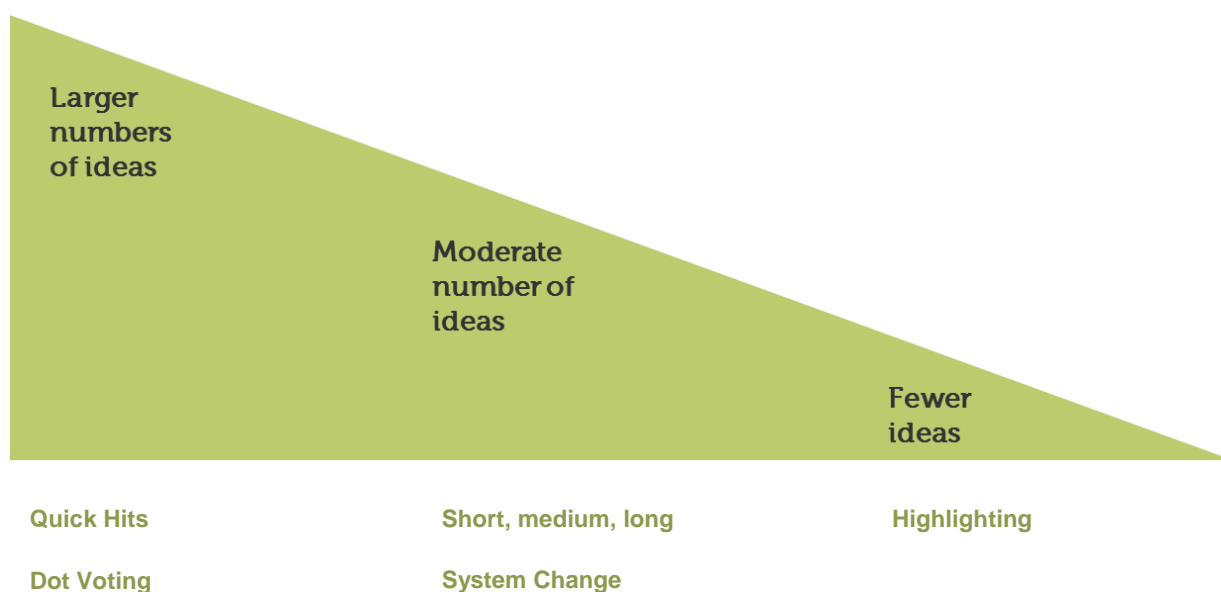
Leveraging Group Diversity

- 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

Larger
numbers
of ideas

Moderate
number of
ideas

Fewer
ideas

Quick Hits   Short, medium, long   Highlighting

Dot Voting   System Change

       Developed for West of England Academy

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, Medium and Long	This is a sorting method, which allocates ideas to a time-span, depending on how soon actions could start to implement them.	15 – 25 minutes
System 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

Quick Hits

Purpose – use this tool to:

- Select promising, interesting, intriguing ideas from a long list of generated ideas.
- 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 you 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 to be 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 aim of the exercise.
- Group members select their ideas and place their chosen ideas into a new single location.
- Check the final set of ideas chosen. How well does this meet the aims of the session? 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 flip-chart, where chosen ideas can be placed.

Facilitator Tips

- Encourage individual decision-making – so that groupthink doesn't 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).

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Dot Voting

Purpose – use this tool to:

- Select promising, interesting, intriguing ideas from a long list of generated ideas.
- 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 you 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 to be 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 for the client. 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 isn't 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 the final set of ideas chosen. How well does this meet the aims of the session? If any important considerations are missing, consider generating new or selecting further existing ideas.

Resources needed

- Sticky dots for voting (if you don't 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 flip-chart, where chosen ideas can be placed.

Facilitator Tips

- Encourage individual decision-making – so that groupthink doesn't squeeze out what the client needs.
- 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.

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# 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 to the client, 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 you 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 horizontal timescale, on flip-chart, with 'short' on the left, 'medium' in the middle, and 'long' on the right. Define the timescales of each category in weeks, months or years.
- Take one option 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 deliver 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 this meets the aims of the session. What timing considerations does this raise?
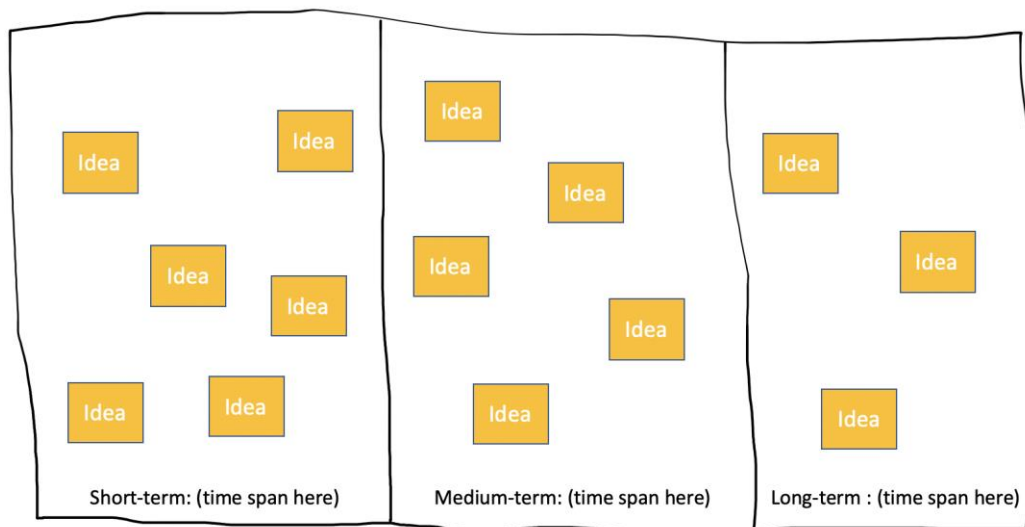
Resources needed

- 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.

Developed for West of England Academy

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, resources, resistance from others.

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 you 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 to be 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, and divide into 3 sections. Label them:
  - At the bottom: 'Fits existing system'. Ideas selected would work within the existing system.
  - Moving up: 'Evolutionary – stretches existing system'. The current system could evolve, without breaking, to implement this idea.
  - Nearer the top: 'Breakthrough – needs new system'. We'd 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 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 aims of the session? If any important considerations are missing, consider generating new or selecting further existing ideas.
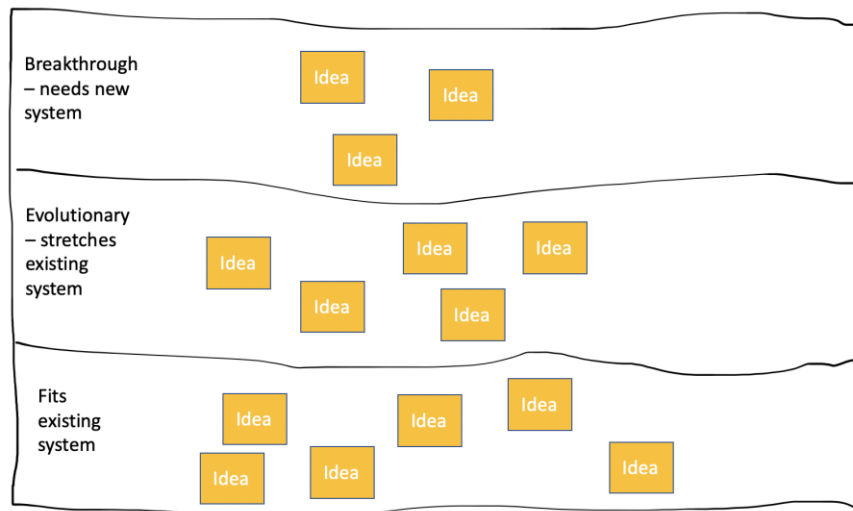
Resources needed

- 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 don't need deep internal knowledge of the politics and culture of the client organisation. (Ensure that the client doesn't dominate the discussion and choices.)
- Consider combine this tool with Short, Medium, Long to show a more sophisticated sorting.
- Allow the group to understand each item before deciding where to place it.

Source: uncertain

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Highlighting

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 you 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 haven't 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' can 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 client feedback on the shortlist.
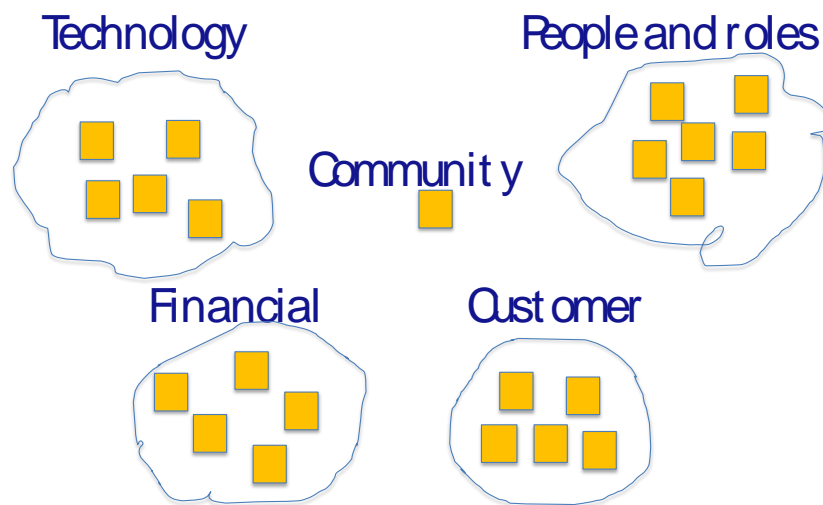
Resources needed

- Post-its, flip-chart, flip-chart pens.
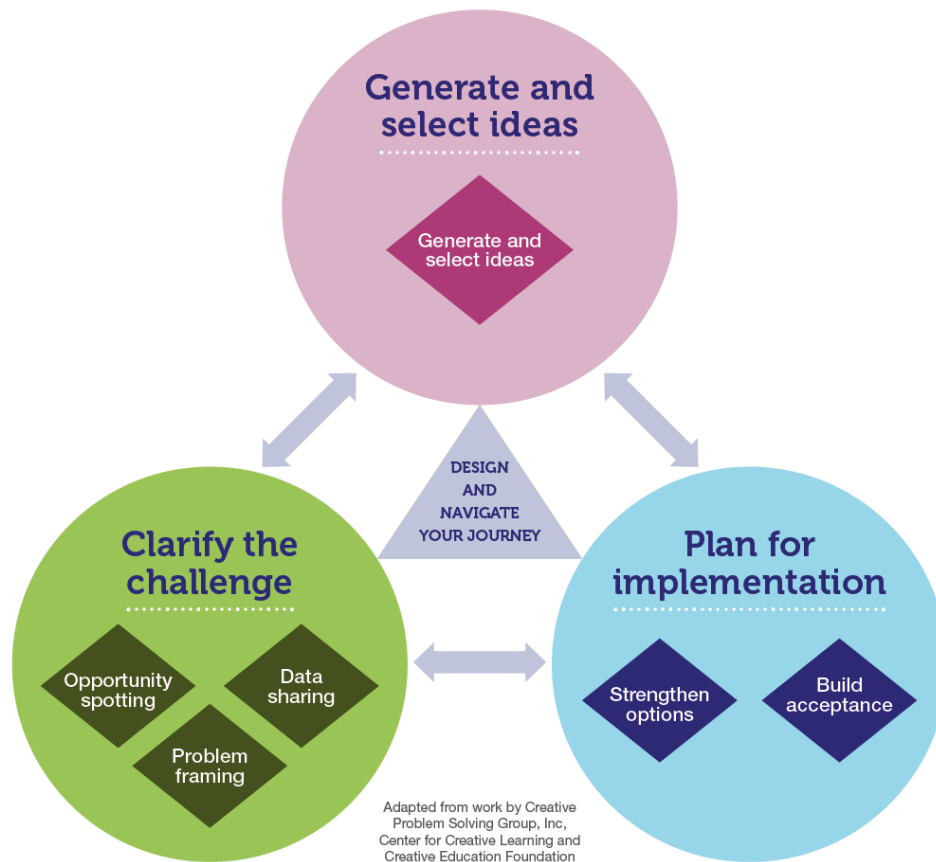
Facilitator Tips

- Post-its help to rearrange items.
- Flip-chart paper for display and writing titles
- Ensure that any 'outliers' or very 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.

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The Creative Problem Solving Process - Stage 3
## Planning for successful implementation

Generate and select ideas

Generate and select ideas

DESIGN AND NAVIGATE YOUR JOURNEY

Clarify the challenge

Opportunity spotting

Data sharing

Problem framing

Plan for implementation

Strengthen options

Build acceptance

Adapted from work by Creative Problem Solving Group, Inc, Center for Creative Learning and Creative Education Foundation

**"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're 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 isn't simply your hunch.

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

Adapted from Puccio, Murdock and Mance, 2005
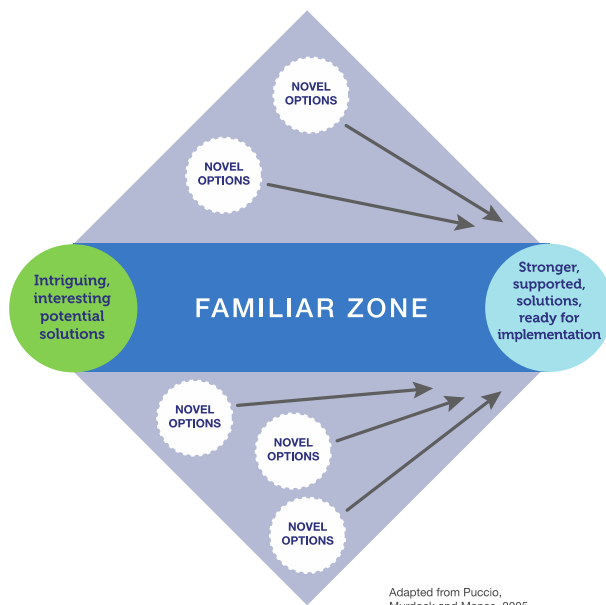
Part of the art is not to be too attached to the ideas. As you turn them into concepts and share them, the goal is to learn fast, at low cost, and effectively. Some concepts will be rejected as your target audience says: "We don't like this, because…" Others will be validated through the feedback you receive:
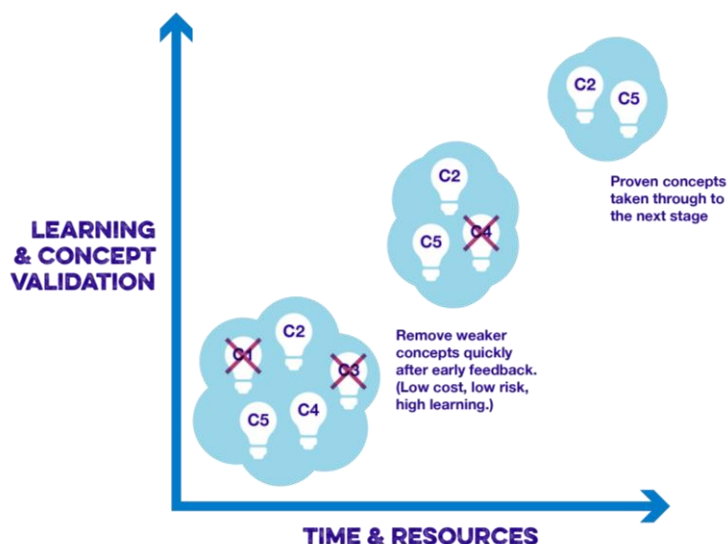
The tools in this section are for the different aspects of this phase. They help you to sort and organise ideas, strengthen ideas communicate and share ideas, risk-assess ideas and to convince others.

Stage 3: Planning for implementation tools

Tool	Value it can give…	Approximate time needed	Other resources needed
Strategic Competitive 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 minutes	A visible space to see the template and discuss the results
Novelty/Ease Matrix	Prioritising and gaining acceptance. Use this to sort 5 – 15 ideas when scarce resources for implementation are an important issue.	20-30 minutes	A visible space to see the template and discuss the results
Criteria and Evaluation Matrix	Prioritising and strengthening options. Use this to sort between 5-10 potential solutions and reduce them to 2-5 more promising ones.	20 – 30 minutes	Paper for charting and showing scores to everyone. Pens.
2 x Implementation Checklists	Strengthening options. These tools generate an initial list of what to consider in order to help you plan. A good starting point.	20-30 minutes	None
Advantages, Limitations, Unique Qualities and Overcoming Limitations (ALUO)	Strengthening 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 minutes	2 – 4 shortlisted ideas
Concept Creation	Elaborating your idea and communicating it to your target group. Getting feedback on the idea.	3-40 minutes	1 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	Gaining 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 minutes	At least 3 people
Supporters and Resistors (help/hinder)	Gaining acceptance. This tool helps identify the people who might help or hinder your idea implementation.	30 – 45 minutes	Flip-chart or whiteboard for charting a table and pens
Changing Shoes	Strengthening options. This helps you anticipate the arguments of important others, and develop your counter-arguments.	20-30 minutes	Flip-chart paper and coloured pens – make it visible to all.
Bullet Proofing	Strengthening options. This too identifies aspects of your plan that may be vulnerable	15 – 30 minutes	Pen and paper for recording.
People Power	Gaining acceptance. This helps you analyse where risks and power lie in complex situations. It helps you to prioritise your persuasive efforts.	30 minutes	Flip-chart paper and coloured pens – make it visible to all.
Business Case	Synthesising your argument to be able to persuade people to say 'yes' to your idea, and resource it appropriately.	Depends on complexity	1 business case best done by a pair of people.

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 of these 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.
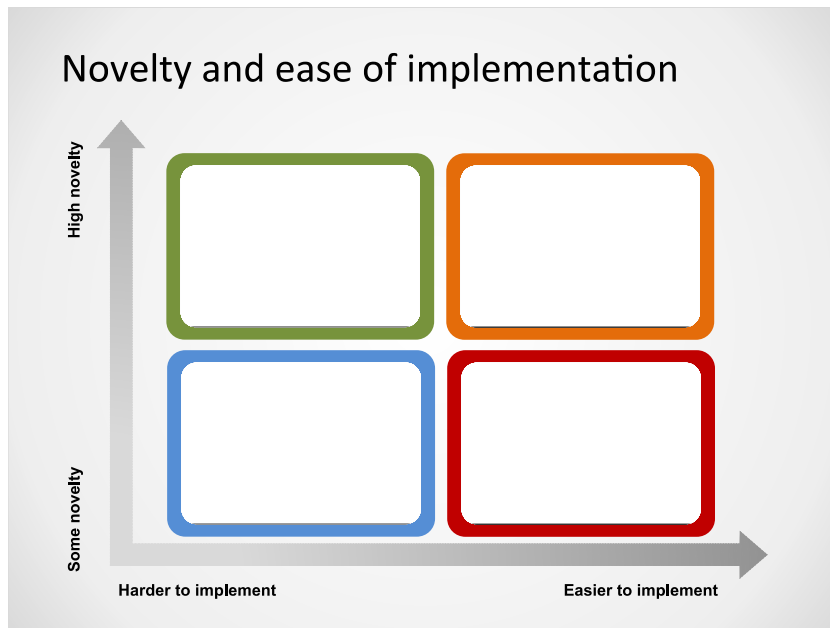

Prioritising potential solutions

Adapted from the VRIO model, Barney J. B. (1991), Firm Resources and competitive advantage
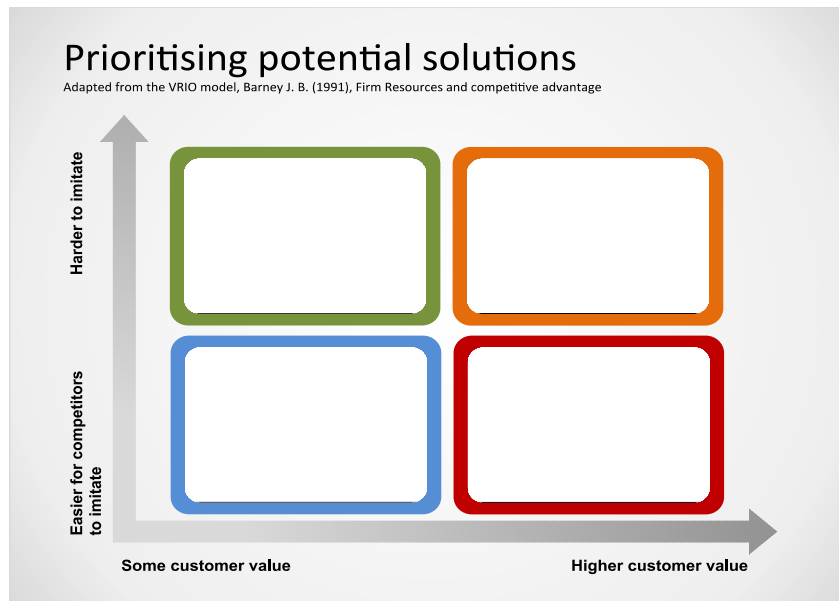
Adapted from the VRIO model, Barney J. B. (1991), Firm Resources and competitive advantage

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Developed for West of England Academy

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.

Novelty and ease of implementation

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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 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 very 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 criteria, 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

Developed for West of England Academy

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

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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 technique. 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 can't 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 you would 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 (In 50 words maximum, describe the idea.)	
Advantages (Identify the strengths and positive aspects of the idea.)	
Limitations (What are the potential concerns or challenges? Phrase these as questions: How to…?)	
Unique Qualities (What is potentially novel and unique about the idea?)	
Overcoming Limitations (List ways to overcome the strongest limitations.)	

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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.
  - The 'friction' for your target group: what they do/their role/work; what they want; why they can't get it. (Write this in 1st 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. After all, it's 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?	
• What is the benefit to the target group?	
• What does it cost?	
• How can I get it?	

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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 probably lower cost, less realistic examples of the concept. Like the examples below, these could include sketches, story-boards, product mock-ups, or role plays of service interactions.
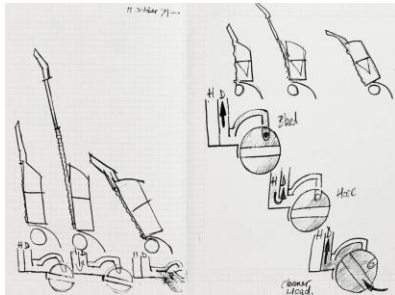
Hi-fidelity examples are more realistic, might cost more to produce, and are likely to be created in later stages of concept development. They might include videos of the concept, physical installations – so people can 'experience' the idea in action.

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

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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 and an observer's.

By looking at these situations from multiple perspectives you can anticipate reactions, envisage conversations, arguments and counter-arguments 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 possible 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 yourself 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

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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's a simple technique for practising your case in a safe environment.

Set up two chairs facing each other and about 10 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 likely 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

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Supporters 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 the client in implementing the plan. Write everything up, somewhere visible.

- Ask the client, if they are present, to select two or three priority 'helps' and two or three priority potential hindrances. (If the client isn't present, ask the group for the priority areas.)

- 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. Check the plan with the client.

	Helps	**Hinders**
Exploration – who, what, etc.		
Action planning – How? When? Where? Who? etc		

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

Developed for West of England Academy

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 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 probably 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.

Developed for West of England Academy

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 likely 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 their 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 or not 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 their current position to the position which you have indicated with a tick and which you realistically think you can persuade them 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 don't 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

Developed for West of England Academy

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 can't get.
- Outline the idea briefly – your audience won't 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 here.
- 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!"
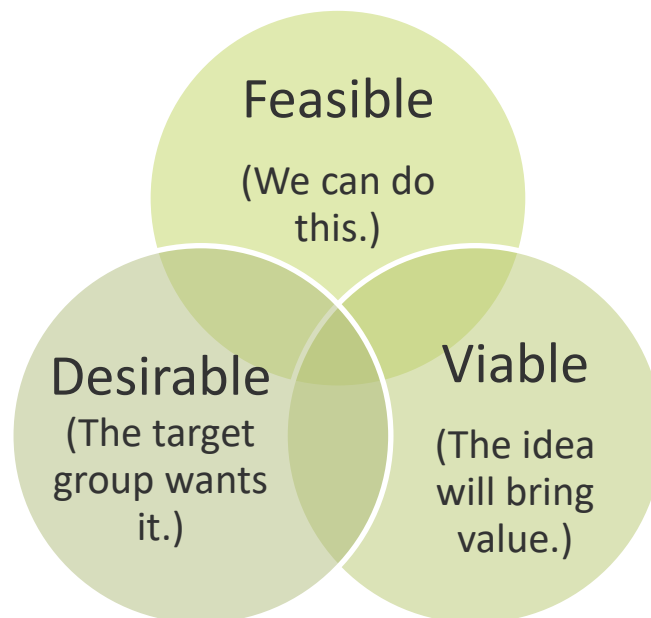
A well-pitched business case combines creativity with operational pragmatism and commercial thinking. Don't hide the risks and the uncertainties. Do pitch the strong benefits to be gained. And do convey your enthusiasm for the case.

Developed for West of England Academy

Facilitating Creative Problem Solving: about your personal development

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'll need to learn to:

    o Use tools that suit the challenge, rather than just using the ones you like!
    o Use both divergent and convergent tools.
    o 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:

    o 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.
    o Securing senior support for ideas that might transform a service, market, business, etc.
    o 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:

    o Finding ways to experiment where the consequences of failure are minimised.
    o Applying the 4 rules for both divergent and convergent thinking.
    o Being focused on desired organisational outcomes and open to being surprised by the process of getting there.
    o Planning for sustainable change that can spread to other areas.
    o 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.