
The Creative Business Analyst

Part 2 – Generating Solution Ideas

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Overview

A lot of people think that coming up with solutions to business problems is the hardest part about being a business analyst – particularly when working with a client who knows more about the business than you ever will. Don't believe it, after all you've already made considerable progress in understanding the problem (see The Creative Business Analyst Part 1) – and you're understanding is based on level-headed analysis rather than a potentially emotional interpretation by your client.

Now it's time to look for solutions – to be creative and think outside the square. In this paper we'll offer a few tips and techniques for getting the creative juices flowing. We'll show you that anyone can be creative and that solutions can come from the most unexpected places – you don't have to be a subject matter expert to come up with valid, workable solutions to business problems.

This series of papers is based on the IRM workshop "Analysing & Solving Problems" and the presentation "The Creative Business Analyst" delivered at the Business Analyst World 2008 conferences in Melbourne and Sydney.

Creativity in business

Mention the word creativity and many people immediately think of the arts, music, scientific research. What's creativity got to do with business – isn't creativity when you invent something?

But just have a look at what synonyms (alternative words) this writer's Word 2007 software throws up for creative – *original, resourceful, ingenious, imaginative*. Aren't we all capable of this?

Every time we work smarter, or more efficiently or collaborate with colleagues and customers we're being creative. It's not rocket science, just opening up our minds to different ways of doing things.

Creativity myths

Okay, so we can see how creativity applies in business – what about at the individual level. How many times have you heard people say”....but I’m not the creative type.” Don’t believe it, we’re all cable of being creative.

There are a few myths about creativity which need to be dispelled:

Myth	Fact*
Creativity is rare	The neural processes which trigger creativity occur in all people
You need a high IQ	No study has ever shown intelligence as a pre-requisite for creativity. Think of all the artists, musicians, writers with “average” intelligence
Only “right” brain people are creative	No specific location for creativity has ever been identified

* Robert Epstein, Ph.D. Psychology (Harvard University). Noted author, lecturer and researcher. Contributing Editor *Scientific American Mind*. Former Editor-in-Chief *Psychology Today*.

Epstein also proposes (in his Generativity Theory) that creativity can be learnt - that it’s a methodical and repeatable process.

Some more on left brain/right brain

Right or wrong, its part of our culture but the original research in the 1960’s was based on a handful of patients with split brains (a break in the corpus callosum which links the two sides of the brain). Cutting the corpus callosum is a rather extreme treatment for epilepsy so it’s fair to assume that the research might not have been totally representative of the general population!!

Nevertheless, some of us are more logical and analytical (left brain) whilst others are more lateral and abstract (right brain). But in business, don’t you need a bit of both?

We need to be logical and analytical when we’re analysing a problem but then we need to apply some lateral and creative thinking if we’re going to overcome the problem. Sure you can solve a problem using an analytical approach but these days we’re often looking for ways of improving existing processes and procedures. Analytical thinking will only take you so far.

So maybe a better term is “whole brain” thinking where we need to use both our logical and our creative skills. Have a look at the following list of whole brain thinkers and see if you agree.

	Logical (left brain)	Creative (right brain)
Albert Einstein	Theory of relativity.	$E=MC^2$ inspired by daydreaming.
Pablo Picasso	Cubism relies heavily on mathematical concepts.	World famous artist, co-founder of the Cubist style.
Lewis Carroll	Expert mathematician.	Renowned fantasy author – <i>Alice's Adventures in Wonderland</i> , <i>Jabberwocky</i> .
Leonardo Da Vinci	Conceptualised the helicopter, solar power, calculator, plate tectonics.	Arguably the world's greatest painter – <i>Mona Lisa</i> , <i>The Last Supper</i> .

The challenge then is to release our creative juices – to overcome the logical, procedural approach – and do it in a constructive, repeatable way.

Idea generation techniques

We often get our best ideas when the mind is stimulated by other activities – that is we're not thinking directly about the problem at hand. We can use exercises or games – individually and in groups – to generate as many ideas as possible. Choosing the best idea comes later – for now we want to come up with as many ideas as possible. Hundreds of different exercises exist, here are three popular ones to get you thinking:

1) Brainstorming & brainwriting

So much has been written about brainstorming that I won't repeat it here – other than to endorse it as a great exercise for getting people talking and thinking. To be successful though it does need a good facilitator who:

- Understands and can define the problem
- Provides guidance on how the session will run
- Keeps things moving and on track (without inhibiting ideas)
- Ensures everyone gets a chance to contribute

Some people however can find it difficult to offer spontaneous ideas – they might feel inhibited in the presence of managers/specialists – or they might just need time to think before saying anything.

Brainwriting provides a useful alternative, one that can be conducted with a group or over the internet. It's based on the premise of using other people's ideas to generate more ideas.

In the following example, everyone writes the same problem definition on a worksheet then spends say 10 minutes thinking of 3 solutions. Anything goes – remember we’re not judging them at this stage. After this, swap sheets around the group and spend another 10 minutes thinking up more ideas – either based on the previous person’s ideas or any new ones you get. Keep repeating this until the sheets full or until you’ve all run out of ideas. For a group of 4 people this would take about 40 minutes.

Problem Statement: <i>Lower household water use by 30% within 12 months</i>			
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	Idea 1	Idea 2	Idea 3
A	<i>Increase water prices by 50%</i>	<i>Ban all garden watering</i>	<i>Develop once-a-week shampoo</i>
B	<i>Give away free shower clocks</i>	<i>Start water-wise competitions for primary school kids</i>	<i>Give rebates on drought-tolerant plants at garden centres</i>
C	<i>Dirty car competitions...footy clubs, RSL...etc</i>		
D			

Can you add any more ideas to this worksheet?

If our group of 4 had all been able to complete the worksheets we’d have 48 ideas to consider, sift and analyse. Some might be duplicates – but it’s not bad for 40 minutes work.

2) Checklists

Alex Osborn (the father of brainstorming) used checklists to stimulate creativity and Bob Eberle expanded on this to produce SCAMPER, a list of words to trigger the thought process.

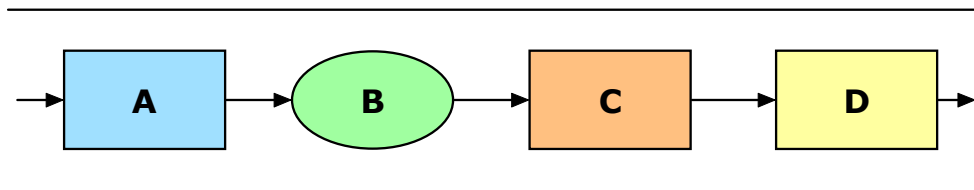
Imagine you worked for a company and your latest product wasn’t selling. What could be done?

S	Substitute	Use cheaper materials?
C	Combine	Bundle the product?
A	Adapt	Change the way it's used?
M	Modify	Change the packaging/design?
P	Put	Any other other uses/benefits?
E	Eliminate	Too many features?
R	Rearrange	Change the sales process?

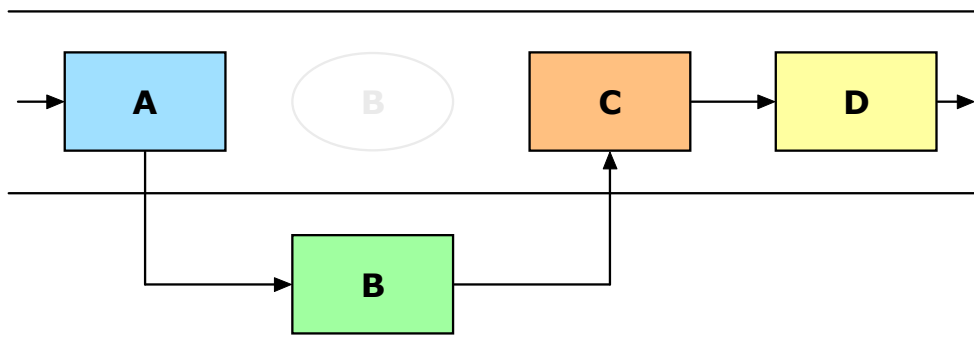
SCAMPER, and other checklists, helps you to manipulate problems by changing the way you look at them. If you can break away from the conventional view of a problem, how many new ideas and solutions can you come up with? Try it for any product, service or process you're having a problem with.

3) Reformulate the problem

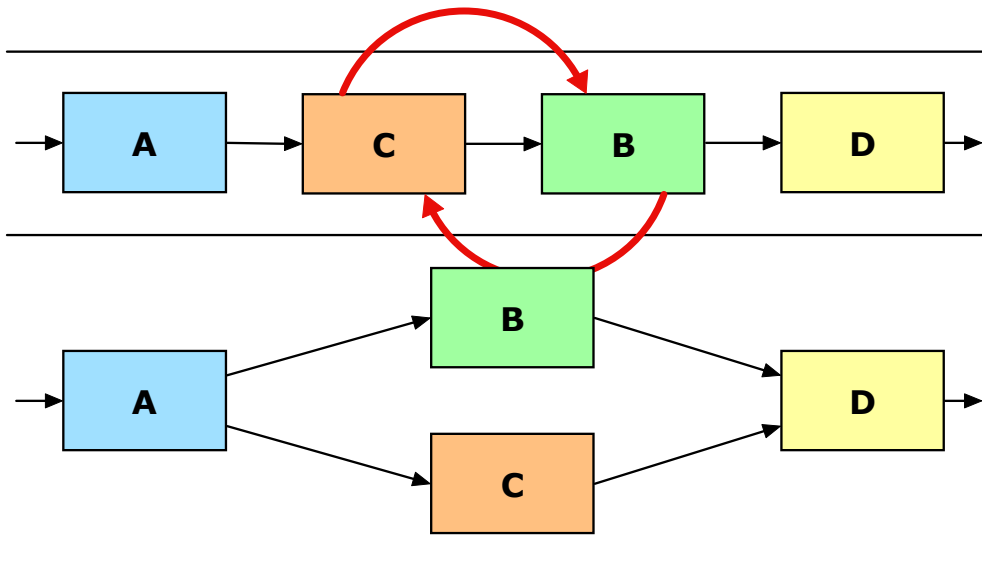
Simply put, this means re-stating the problem in a different way. Take the following example of a business process that we want to improve. Step B in the process is causing a problem:



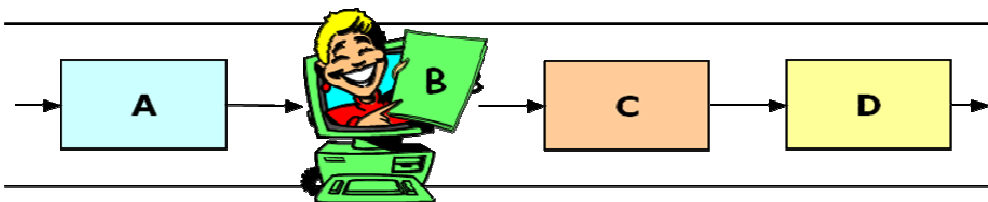
Can we move B and perform it in a different place. Will this help?



Can we re-sequence B or make it parallel?



Can we change who (or what) does it?



There are many more questions we can ask (see the 20 questions section in the IRM paper *Creative Thinking Techniques*). Questioning helps us to generate new ideas by re-stating the problem from different perspectives.

Characteristics of a good idea

Whatever technique you use, however many ideas you come up with, don't assess them until later – give them time to incubate. Nothing inhibits the free flow of ideas more than a debate on its merits as soon as someone puts it forward. Just remember to record it and move on. Suspend judgement and keep the ideas flowing.

When you do start the assessment process you should have plenty of ideas to compare and contrast. Remember that we're not always looking for a "silver bullet", a magical solution to

our problem. Often we just need to choose the best way forward from all the ideas that we have – so the more ideas the better.

Each problem we encounter will have its own unique characteristics for an ideal solution. However some characteristics are universal whatever the problem. An ideal solution can:

- Solve more than one problem
- Be implemented quickly
- Be implemented independently
- Mesh well with business strategy
- Be implemented step-by-step

Summary

In the final paper of this series we'll look at how to select the best solution and how to justify the recommendation we make to our client. For now there are a few golden rules of idea generation which are worth remembering:

- Record all ideas
- Go for quantity over quality
- Suspend judgement - evaluate later
- Explore variations

The final point is a sober reminder not to dismiss ideas out of hand. What might on the surface appear unworkable could, with a minor tweak or variation, turn out to be the ideal solution.

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