Antipuoņuənuo Thinking

By Jeffrey Baumgartner

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ANTICONVENTIONAL THINKING (ACT 3.0)

By Jeffrey Baumgartner July 2014

INTRODUCTION



Anticonventional thinking (ACT) is a new, fun and effective approach to goal-oriented creative thinking. It is a method you can easily learn and use when you need to develop original ideas and make them happen.

ACT is a four step process that takes you from a situation where you want to do something creative, through to building a creative vision and an action plan for implementing it. ACT is modelled after the way creative people -- like artists, writers and composers -- collaborate and is based on the latest scientific research into how the brain works and how groups collaborate. Although ACT is a relatively new name and concept, it taps into an approach creative humans have been using for centuries.

If you have tried brainstorming, only to be disappointed by the results, you will love ACT. Here are three reasons why ACT is better:

- Brainstorming aims to generate a long list of mostly mediocre ideas. ACT aims to build a single, sophisticated creative vision and an action plan.
- Brainstorming prohibits criticism of ideas and welcomes conventional ideas. ACT prohibits conventional ideas and welcomes criticism of ideas.
- Brainstorming is an analytical approach based on outdated assumptions. ACT is a playful approached based on current research.

Which do you think is a more effective approach to developing big creative ideas that are likely to be implemented and become innovations? Which would you prefer your colleagues use in your innovation programme?

This booklet provides a description of the ACT process, an explanation behind the logic of ACT and a comparison between ACT and brainstorming. It is the third update.

History

I began getting frustrated with brainstorming, as a creative thinking method, some time ago. In part, I found it absurd that I was facilitating brainstorms to help clients come up with creative ideas; but when I was trying to develop ideas with others, especially creative people, I used a very different approach to creativity, one that was argumentative, critical of boring ideas and aimed to build a single solution that we could act upon. The thing is, the informal approach I used with others – and which most artists, scientists, composers, writers and other highly creative people naturally use – was much better at

producing creative ideas that we made happen.

In 2010, I decided to model the informal approach into a process that could be used with groups not used to creative collaboration. I read up on the research into brainstorming's flaws. I further read up on research into how the brains builds ideas and how groups interact. And I put it all together in time to present at the European Conference for Creativity and Innovation in Faro in 2011. It was good, but far from perfect.

Since then, I have continued to develop ACT. I have also taught ACT in workshops with companies, governments and non-profits around the world, from a leading Genentech, a US based pharmaceutical company, to the Prime Minister's Office of Dubai, and all kinds of organisations between those extremes.

Along the way I have tweaked ACT considerably. I believe it is now very nearly perfect; though there will always be room for improvement. In this paper, I present the third update of ACT.

Your comments are most welcome, feel free to email me at jeffreyb@jpb.com with your thoughts.



Speaking about ACT at TEDxULB in Brussels.

AN EXAMPLE

To see how ACT compares to traditional brainstorming, try this example. It would be best to do it with a small group of people working together.

Exercise 1



Imagine an ordinary brick of the kind used to make houses. Take 10 minutes and write down as many uses of the brick as you possibly can. Write down every idea that comes to mind no matter how silly it may be. If you are doing this with a group, there is to be no criticism whatsoever. All ideas must be written down.

Once your 10 minutes are up, combine related ideas. Then, let each member of the group vote on what she believes to be the three best ideas. Whichever idea gets the most vote wins. If there is a tie, hold a tie-breaking vote.

Exercise 2

It would be best to wait a few hours or even a day before you do this, but if you are impatient, go ahead.

Imagine a glass of water. Now, write down 15-20 open ended questions you could ask about the glass of water. By open questions, I mean questions that cannot be answered with a "yes" or a "no". In particular, ask provocative, outrageous and weird questions such as: "What is the water thinking?", "How do the water and glass feel about each other?", "Where is the glass from and how did it get to be where it is now?", "What would a chimpanzee do with this glass of water?", "Why is there water in the glass?" and so on. Avoid boring questions. You want to understand this glass of water better, you do not want to bore it with small talk. If you are doing this in a group, you are welcome to debate and even argue about questions. However, you must follow the rules of debate (see next page).

Once you have your list of questions, feel free to take a short break.

Ready? Good! Go through the questions, discuss them and come up with answers. Even silly answers are fine. There is no need to come up with definitive answers or even to write your answers down. Simply think about possible answers. If there are not obvious answers, make them up! Be imaginative, be funny, be dramatic. Again, feel free to debate the answers.

Once you have finished answering questions and discussing, you should have a much better feeling for the glass, the water and their possibilities.

Now try to come up with a craziest possible use of the glass of water that you can. You do this by playing with ideas. What is the first idea that comes to mind? If it is boring, reject it and try to come up with something crazy and unconventional. If one of the group suggests a boring idea, tell her. Then let her try to defend the creativity of her idea if she wishes.

Once you have an idea that you all like, push it further. Make it crazier.



Make a story about what you could do with the glass of water and the consequences.

As you are playing with ideas, you are encouraged to criticise ideas, however, you must follow the rules of debate.

Rules of Debate

- 1. Always criticise boring ideas.
- 2. Criticise the idea and not the person asking it.
- 3. If you criticise an idea, you must allow the person who suggested it and anyone else to defend the idea.

RESULTS

Compare the best idea from the brick exercise to the idea you built in the glass of water exercise. Which idea is most creative? Which is more elaborate? Most likely, the second exercise resulted in a more creative idea. Almost certainly, it resulted in a more elaborate idea.

Congratulations! You have just had your first experience with anticonventional thinking!

As you may have noticed, the first exercise was essentially an example of brainstorming. The brick exercise is a common creative thinking approach and, as a result, is also frequently used to measure creativity. A highly creative person will normally come up with more ideas and more creative ideas than an averagely creative person.

The second exercise was about anticonventional thinking. Rather than ask you to come up with lots of ideas, you first had to ask questions about the problem. Moreover, you were specifically urged to ask provocative, outrageous and weird questions. You were specifically asked not only to reject conventional ideas, but to criticise them should they be suggested. Lastly, rather than list ideas, you built a bigger idea, which almost inevitably will be more creative and more elaborate than an idea shouted out in a brainstorm.

In this exercise, we did a number of things to push the brain to think anticonventionally, such as asking unusual questions, rejecting boring ideas and allowing criticism of ideas. Later in the booklet, I'll explain why these actions encourage anticonventional thinking.

Note

I should point out the comparison you did was by no means a proper scientific comparison. Rather it was a quick and dirty comparison without any kind of control. As a result, you may not have seen the results described. If this is the case, you may wish to try it with other groups of people and see what happens.



The Method



This gauge shows the range of actions you can take in nearly any given situation.

1. Make a Situation Transcendental

Life is a steady stream of situations in which we participate as individuals, groups, organisations and societies. In any of those situations, we have a choice of actions to take

- 1. Do nothing.
- 2. Do the conventional thing.
- 3. Do something unusual but not creative (such as applying an unusual idea you found on the web.
- 4. Do something unconventional and creative.
- 5. Do something bonkers and irrational (this is not desirable, as it implies insanity, but it is an option).

In most situations, we do the conventional thing without thinking about it. And when we do not know what the conventional thing is, we simply Google the situation and promptly learn the conventional action to take.

When you stop, think and decide not to do the conventional thing in a given situation, but instead to look for an unconventional, creative action you might take, it becomes a transcendental situation; it transcends ordinary situations where you would take conventional action.

Of course, you may eventually do nothing or opt to do the conventional thing. That does not matter, once you make a decision to at least seriously consider alternatives to the conventional, a situation becomes transcendental.

2. PLAY WITH THE SITUATION



Once you have made a situation transcendental, you need to play with it for as long as possible. Absolutely do not start generating ideas -- this is a sure path to boring, conventional ideas! In order to be unconventional and creative, you need to understand a situation deeply. There are several ways you can do this.

Meditation

Meditation is an excellent way to visualise the situation and play with it, especially if you are working alone or with a small group – that said, even in a

large group, members can meditate and then share insights.

In my workshops, I often lead meditation periods with surprising success. Participants inevitably come to me afterwards to share some kind of enlightenment that came as a result of the meditation.

The process I use follows Buddhist meditation techniques for breathing and relaxing. Then I invite people to enter into their own minds and once there, to visualise in their minds the transcendental situation. Then I talk them through a series of actions such as walking around the situation, looking at various elements of the situation, looking at who is in the situation, seeing the situation from their perspectives, smelling the situation, feeling the situation and so on. Eventually, I ask people to do unexpected and unconventional things to the situation, such as changing the colour of the situation, introducing animals into the situation and shrinking the situation, to name but a few. It is these unconventional things that usually lead to creative enlightenment, because it forces people to see their transcendental situation in new ways.

Meditation need not be restricted to sitting in a lotus position and saying, "auum". One can also meditate will walking, sitting in the bath or sitting in a comfortable chair and staring off into the horizon. I personally go for long walks to meditate over situations. I find the movement relaxes me and the changing scenery and activity around me inspires insights.

Questioning and Anticonventional Questioning

Questioning is another great way to play with a situation. Moreover, if you are collaborating with a group, it is the best way to share the experience of playing with the situation. Questions should include conventional analysis questions, feeling questions and anticonventional questions.

Conventional analysis questions are the ones you always ask in transcendental situations. They are widely used by consultants and in creative problem solving (CPS – a more elaborate creative thinking technique based on brainstorming)¹ in order to understand the problem. They are effective, but a bit dull. Here are some examples:

- The five whys (asking why a problem exists and upon answering, asking why about the answer and repeating for five whys)².
- Who is affected by the situation?
- Why do we not want to take conventional action in this situation?
- How would we like the situation to be in a year's time? In five years?
- What are the consequences of doing nothing?

Anticonventional thinking insists that you go further, in part by asking questions about feelings. These are important in business, but often forgotten in analysis. Feeling questions include:



'Imagine a talking penguin walks into you situation. What happens? How does the penguin react?"

¹ You can find more information about CPS here:

http://www.creativeeducationfoundation.org/our-process/what-is-cps

² http://en.wikipedia.org/wiki/5_Whys

- How do we feel about the situation? Why?
- How do our customers feel? Why?
- How would we like our customers to feel?
- How do people who are not our customers feel?
- How do our organisations decision makers feel about it?

Then you need to go further still, by asking anticonventional questions which force you to look at your situation in new ways, to associate it with seemingly unrelated information and to facilitate playing with a situation. They are also much more fun than conventional analysis questions. Here are some examples:

- What does the situation sound like?
- What colour is it? What happens if we paint it red? Blue?
- What would Google do in this situation? What about McDonalds?
- What would happen if we let a penguin wander around the situation?
- How would a team in [name a country in a different continent] deal with the situation?
- What would happen if we made the situation very small?

Be sure to take notes during this process, not only to record answers to the questions, but also to note down any inspirations or ideas that come to mind during the questioning. Of course, you should not focus on ideas at this point -- continue to play with the situation -- but it is inevitable that ideas will come to mind, so write them down and save them for later.

Do not worry if some of the answers are silly or if answering the questions leads to laughter. These are signs of creativity and should be encouraged.

Let the Situation Sit and Your Mind Wander

Unless you need to take action quickly, let the situation sit in the back of your mind for at least a day or two. Longer is better. As you go about your life, your mind will make various connections between what you are doing and the situation in the back of your mind. Often, you will not even be aware of these connections. You may find that when you wake up in the morning, you are inspired with new thoughts about the situation. This is because your mind organises and files away thoughts while you sleep, which results in mental connections that form new ideas that inspire you when you wake.

Going for walks or relaxing and allowing your mind to wander while vaguely aware of the situation is a powerful way to play with the situation and find inspiration. When the mind wanders, the dorsolateral prefrontal region of the brain -- the part I like to call the mental bureaucrat in your head because it is the region that vets ideas for suitability and typically rejects unconventional thinking -- becomes less active. As a result, your mind can really play with the situation and unexpected ideas are more likely to come to mind than if your mind is not wandering -- such as when you are at your desk at work.



In my workshops, I sometimes use this sexiness scale for evaluating sexy goals. Images are courtesy Wikipedia Creative Commons.



3. Optional: Formulate a Sexy Goal (or Extreme Goal)

If you are collaborating in a group or intend to involve others in vision building, I recommend that you formulate a sexy goal (or "extreme goal" if you are in a culture where the term "sexy goal" might make people uncomfortable). It is important to note that in ACT we work with a goal where as CPS and brainstorming use problems. This is because, as I like to point out in my workshops, problems are for losers and goals are for winners. More seriously, working towards a goal generates a more positive feeling than solving a problem.

A sexy goal is one that is provocative, desirable and interesting. A good sexy goal helps to make people think differently about the situation enabling heir minds to connect unexpected ideas with the situation. For example, imagine you are tasked with designing a new camera for your company. Typical problem/challenge statements are: "In what ways might we improve upon our existing cameras?" or "What features might we include on our new camera?" These are fine problem statements, but they are conventional and focused on cameras. The result will surely be conventional camera ideas because participants will be thinking about existing cameras while suggesting ideas.

A sexy goal would be: "Describe a device that allows people to capture and share memories!" Do you see how this frees the mind from thinking about cameras and makes it easier to come up with creative, unconventional ideas?

Once you have formulated your first sexy goal, ask yourself if it is sexy (or extreme) enough. I can tell you already that it is not, so get sexier. In my workshops, I use the chart above to enable participants to rate how sexy their goal is. If they goal is not an eight on the scale, it is not sexy enough.

If you are working alone or in a small group, you may not need to formulate a sexy goal -- you can simply move from playing with the situation to building a creative vision.



4. Build a Creative Vision

Building a vision in ACT is very different to the idea generation you probably know. In brainstorming and similar activities, you are told to generate as many ideas as possible and are forbidden to criticise or question ideas. The aim is to generate as many ideas as you possibly can.

In ACT you aim to build a single creative vision by testing ideas in your mind and rejecting those that are too conventional or not viable. Moreover, not only does ACT permit criticism and questioning of ideas, it encourages such behaviour. ACT recognises that the only way that members of a group can understand ideas, especially the seemingly crazy ones, is by questioning them and criticising them. ACT also recognises that if you forbid boring, conventional ideas, it puts participants into a mind set of rejecting boring ideas in their minds and pushing to be more creative. Lastly, ACT recognises research by the University of California, Berkeley³ which found that when idea generation groups are encouraged to criticise ideas, they generate significantly more creative results over a longer period of time. In my own experiences of running brainstorms (long ago), ACT and other ideation exercises, I have also seen that when respectful criticism is allowed, creativity thrives.

To ensure that criticism remains respectful and productive, there are three rules that must be followed in any ACT session.

Rules for criticising ideas in ACT

- Always criticise boring and conventional ideas.
- Criticise the idea and not the person.
- After you have criticised an idea, you must be quiet and allow the idea owner or anyone else to defend the idea.

I also recommend that you try to pose your criticism as a question as this encourages debate and discussion.

Build Your Vision Through Trial and Error

Rather than generate a stream of ideas, in ACT you play with ideas. When an idea comes to mind, ask yourself first if it is conventional or, worse, boring. If so, drop the idea immediately before it corrupts your creativity. If you are collaborating and someone suggests a boring idea, criticise it, tell her the idea is boring. If you are new to ACT, I recommend that you make a list of the most conventional actions you might take in the transcendental situation. Then, you have a list of ideas to avoid. Moreover, you can use the list as inspiration, for example asking: "What would be the opposite of [conventional action]?"

If an idea is unconventional, imagine applying it to the situation. Ask, does it work? Is it viable? If not, how could you modify it to make it work? Is it unconventional enough (hint: the answer is "no") How you can make the idea crazier? Once an idea starts to work, build it up. You do not simply want an

³ Matthew Feinberg, Charlan Nemeth (2008) "The 'Rules' of Brainstorming: An Impediment to Creativity?", Institute for Research on Labor and Employment Working Paper Series (University of California, Berkeley) Paper iirwps-167-08

idea, you want a creative vision. So, think about the details, the features, the implementation, the potential problems and build the idea into a vision. If you hit a dead end and feel the vision is too conventional or is not coming together, drop the vision and start again.

As people suggest ideas, criticise and debate ideas that you feel are not viable. You will either find that the idea is better than you initially understood it to be or you will find that the idea is not very good. In the latter case, you can not only drop the idea, but the train of thought that led to the idea, enabling you to follow other, more promising trains of thought.

Assuming creativity and eventually innovation is the final goal, continually ask yourself, or the group, "is this crazy enough? Can we make it crazier still?" The answers are almost always, "no" and "yes" respectively.

In a formal setting, such as a collaborative ACT session in your organisation, consider preparing the vision in the form of a story, a model, a drawing or a role-play. Doing so has a couple of advantages. Firstly, it makes it easier to share the vision within the group. Secondly, it enables you to test the vision as you go along. If you are preparing a story, for example, logical flaws in your thinking will be more obvious than if you are simply describing a vision. Lastly, a story or model is a great way to present the vision to others, such as managers who may have to approve its implementation.



5. Build an Action Plan

If possible, allow the creative vision to ferment in your mind for a day or three before building an action plan. You will often find that, in the days following the vision building, new thoughts come to mind. You should contemplate, discuss and apply them.

One of the challenges people face after any creative thinking activity is that ideas that seemed like jolly good fun during the creativity event can suddenly seem intimidating when those people return to their work desks and dozens of conventional distractions. This is why it is important to begin the action plan in a relaxed environment with participants of the group.

To make your creative vision less intimidating, break it up into small, manageable steps. Assign someone overall responsibility for the vision implementation project and then assign individuals, from your ACT session group, to take responsibility for each step.

6. Do It

The number one reason that creative ideas do not get implemented is because no one implements them. Fortunately, this is an easy situation to rectify. Do it!

EXPLANATION

In order to understand why ACT is an effective creative thinking method, it helps to understand how the mind forms ideas. In order to do this, we need to understand how the mind forms and recalls memories. So, let's remember something and see what happens.

Think about a talk you have recently had with a friend. Stop and remember it for a moment. Think about it.

Once you have remembered the conversation, answer these questions.

- Who did you talk with?
- What did you talk about?
- Where were you?
- What was happening in the background?
- How did you feel about the conversation at the time?
- How did your friend feel?
- What did it smell like?

Visualise the conversation again. Now, imagine a cat walks past you while talking. The cat looks up and asks, "excuse me, but have you seen a mouse run past?"

So, What Happened?

Your life is not like a film that records as you experience life and which you can rewind in order to revisit those experiences. Rather, as you go through life, experiencing stuff, learning, reading, assuming and forming ideas, your mind processes all of these memories and breaks them down into small chunks of memory – let's call them notions – and stores the notions in an orderly fashion in your mind. Thus, notions about your friend are kept in one area of your mind. Notions about emotions are in another area. Notions about smells are in another area. And so on.

Thought Constructor

When you remember something, a mechanism in your mind – let's call it the "Thought Constructor" – quickly fetches the relevant notions and strings them together to recreate the memory. And you remember. It all happens almost instantaneously.

When I asked you to recall the talk you had with your friend, the Thought Constructor found the relevant notions and put them together in your mind. Initially, it probably put together the basic pieces you needed to recall the event: notions about your friend and the conversation.

Then I asked you questions about the conversation,. The Thought Constructor had to find additional notions to make the memory more complete. For instance, unless the smell of the conversation was an integral part of the conversation, you probably did not recall the smell until I asked about it. But when I did ask, it was no problem for your mind to add the smell



to the memory.

Then, I added a talking cat to your recollection of the conversation. Now, I am assuming that there were no talking cats involved in the experience you remembered. Moreover, I assume you have never encountered a talking cat in real life, though you likely have come across them in cartoons and perhaps in my novel.

Nevertheless, your mind has sufficient information, tucked away in the form of notions, to change the memory of the conversation and include a talking cat. Indeed, if you close your eyes and let your imagination run for a couple of minutes, you could probably visualise you and your friend responding to the cat and then talking to each other about the cat.

No one understands exactly how or why the Thought Constructor works. We simply know that it does work and it is what enables us to recall memories, be they life experiences, knowledge or even feelings.

Building Creative Ideas

The thought constructor works in pretty much the same way to build creative ideas and visions as it does to reconstruct memories. If you are trying to come up with ideas, your thought constructor whizzes through your mind, pulls out various notions, connects them to other notions and checks the result out.

If the connection of two or more notions results in an all new notion, at least as far as your mind is concerned, you have had a creative idea. If your mind accepts the idea, it becomes a new notion that can be used for constructing new creative ideas in the future.

This is what creativity is, in terms of your mind: connecting existing notions to create new notions.

Mental Bureaucrat

When you are building ideas in your mind, there is another area, besides the Thought Constructor, that becomes active. It corresponds to a part of the dorsolateral prefrontal region of the brain. In our model of the mind, let us call it the Mental Bureaucrat.

Your Mental Bureaucrat watches and reviews ideas that the Thought Constructor builds and rejects those that it feels are inappropriate. In general, this is a good thing. If you of sound, or at least reasonably sound mind, your Mental Bureaucrats ensures that you behave properly, that you conform to the norms of social behaviour; that your actions are moral, ethical and acceptable.

On a hot day, you might briefly be tempted to wear a bikini to work. If so, and assuming you are not a life guard, the Mental Bureaucrat will reject the idea is inappropriate and prevent you from following through on this idea.

However, the Mental Bureaucrat can also stifle creativity. When a person initially has a crazy idea, it can be difficult to determine whether the idea is crazy in a creative way or crazy in a stupid way. Very often, the Mental Bureaucrat decides it is crazy-stupid and rejects the idea. This is particularly true if you are in an environment that does not encourage craziness, such as most business meetings. But, even when you are on your own, especially in a formal environment like work, the Mental Bureaucrat tends to reject crazy ideas.





Creative Geniuses

Interestingly, the minds of naturally highly creative people – such as artists, composers and novelists – do two things differently than the minds of people of average creativity. Firstly, the creative person's Thought Constructor searches more widely in the mind for notions and brings together more diverse notions than does the Thought Constructor in other people. This makes it easier for such people to build creative ideas.

Secondly, the creative individual's Mental Bureaucrat is less active, especially when the creative person is focused on her area of interest, than is the Mental Bureaucrat in others. Hence crazy thoughts are not so readily rejected as they are in the minds of others.

This is why some people find it easy to dream up highly creative ideas while others struggle to have even moderately creative ideas. It is likely also the reason why artists and musicians tend to seem eccentric in behaviour and appearance. Their Mental Bureaucrats do not reject such behaviour as inappropriate.

Purposefully Reject Conventional Thinking

Clearly, if you want to be creative, you need to do two things. Firstly, you need to train your mind to combine diverse notions in seemingly unconventional ways. Non-diverse notions are already interacting in your mind. Bringing them together is seldom unconventional or creative. Combining seemingly unrelated notions, however, often results in creative ideas.

Secondly, you need to get your mental bureaucrat to reject conventional ideas and accept unconventional, seemingly crazy ideas. This is not the way the mental bureaucrat works in most people. But if you remind yourself that you want to be unconventional and crazy, the mental bureaucrat can reverse its usual way of working. You do this by prohibiting conventional ideas and encouraging groups to criticise ideas, especially boring ideas.

This is why I use the term "anticonventional thinking" – the process is all about being purposefully unconventional. This is also what differentiates ACT from many other creative thinking approaches which focus on generating a lot of ideas rather than on how the mind builds ideas.



The Problem with Brainstorming

As I wrote in the introduction to this paper, I was inspired to develop ACT as a result of frustration with brainstorming. In spite of a growing body of criticism about the method, it is still widely used, in part, because creativity facilitators, like many of the groups they facilitate, are reluctant to give up outdated processes and try out alternatives.

Let's look at the flaws of traditional brainstorming.

What Exactly is Brainstorming

The first thing we need to do here is to clarify what I mean by brainstorming. The word has two meanings. The first is as a generic term for generating ideas. This is how it is most widely used. But within creativity circles, brainstorming is a specific process devised by Alex Osborn, an advertising chap, in the 1940s. He later wrote about brainstorming in several books on creativity. Later in his life, he teamed up with Sidney Parnes to develop a more sophisticated creativity approach known as creative problem solving (CPS), which has been institutionalised and revered at the International Center for Studies in Creativity at Buffalo State College.

The brainstorming method was based on three untested assumptions Mr Osborn made in the 40s: that groups can be collectively more creative than individuals; that criticising ideas inhibits creativity; and that if you generate a lot of ideas, without concern for quality, you will inevitably generate highly creative ideas which can be selected at the end of the brainstorm.

These assumptions have all since been proven wrong.

The Group Thing Does Not Quite Work

In 1958, a team at Yale University was one of the first to test brainstorming⁴. They put together several groups to generate ideas. Half of the groups followed Osborn's method and collaborated to generate ideas. The other half were nominal groups in which each member simply wrote down ideas without interacting with others in the group. Each group was put to generating ideas and the results compared. What Yale University found was that the nominal groups consistently had more ideas and more creative ideas than the brainstorming groups. Each group followed the same rules and focused on the same problem statement. The only difference was whether they worked as a group or as individuals.

Subsequent tests have confirmed this. Fortunately, however, for the brainstorm facilitator, it is not a difficult problem to get around. For instance, you can have people write down ideas individually for a period before putting them in a group to combine the individual ideas and then generate more together. So, this is a valid criticism of the method, but not a serious impediment.

Criticism Enhances Creativity

The fundamental rule of brainstorming, of course, is that there is to be no criticism of ideas. Criticising ideas will hurt people's feelings and inhibit their creativity. This assumption sounds really good. So good that it was not even tested until recently. But it is also flawed.

A couple of researchers at University of California, Berkeley⁵ set up three sets of brainstorming teams. One set was given no instructions. The second set was given traditional brainstorming instructions and specifically told not to criticise ideas during idea generation. The third set was given brainstorming instructions with difference. This set was specifically encouraged to criticise ideas during the idea generation phase. Most of the teams in the traditional brainstorming set moderately outperformed the teams in the set given no instructions. But the teams specifically told to criticise ideas came up with the best results by far!



⁴ DW Taylor, PC Berry and CH Block, "Does Group Participation When Using Brainstorming Facilitate or Inhibit Creative Thinking?" Administrative Science Quarterly 3, no 1 (1958): 23-47

⁵ Matthew Feinberg, Charlan Nemeth (2008) "The 'Rules' of Brainstorming: An Impediment to Creativity?", Institute for Research on Labor and Employment Working Paper Series (University of California, Berkeley) Paper iirwps-167-08 http://escholarship.org/uc/item/69j9g0cg

This bit of research appals most brainstorm facilitators and lovers of CPS because it breaks the fundamental rule of both methods: criticism is not allowed during ideation. Any hint of criticism will cause participants to clam up, become inhibited and stop sharing ideas. But, as the Berkeley research has shown, this is not the case. Criticism actually enhances to level of creativity. Moreover, when I have encouraged criticism in ACT, participants have really liked it. As one man said, "when we are allowed to criticise ideas, we can really question them and understand them better."

That is true. If you truly want to build upon an idea, you have to be able to criticise it first.

Frankly, I am not surprised by the results. When I think about my artistic collaborations, the idea generation process was never like traditional brainstorming. It was an argumentative debate. Ideas were criticised, discussed in detail and thrown away if they were not good enough. Seemingly silly ideas, once defended became core ideas to the project.

People Do Not Like Creative Ideas

Because the aim of brainstorming is to produce a large number of ideas, the result of any brainstorm will be a long list of ideas that someone needs to sort through in order to identify which idea or ideas to take forward. Brainstorming does not address this. CPS is vague. In practice, there may be a vote for best ideas. In any event, ideas are often organised in some fashion and presented to a manager who must make a decision. You would assume that the manager would be eager to choose the most creative ideas.

But the truth is, in spite of what they say, people do not like creative ideas very much. Research at the University of Pennsylvania⁶ has demonstrated that people are actually biased against creative ideas. Given a choice of ideas to implement, most people will select relatively conventional ideas over more creative ideas. This is doubly true if evaluation criteria are vague (such as "choose the best idea"). So, most managers will not even select the most creative ideas generated in the brainstorm they organised!

In actual fact, I have found that most brainstorms result in a long list of mostly conventional ideas and nothing more. No ideas are selected. No action is taken.

Brainstorming Is Not Creative

The conclusion we can draw from the research is clear: brainstorming is not very effective when it comes to generating truly creative ideas. Most managers already seem to know this. Astute managers with whom I have talked found the results unimpressive and the method non-productive, at least when it comes to generating original ideas that they will implement.



"Sir, the team and I feel you are becoming a little overly obsessed about ideas."

⁶ Mueller, Jennifer S.; Melwani, Shimul; and Goncalo, Jack A., "The Bias Against Creativity: Why People Desire But Reject Creative Ideas" (2011). Articles & Chapters. Paper 450.

Conclusion

ACT is a new approach to achieving goals, and hence solving problems, through creativity. However, unlike other creativity methods which focus on generating a lot of ideas in hopes that at least one idea is creative, ACT focuses on visualising the situation in which you want to be creative, playing with that situation in your mind in order to build lots of associations with other information in your mind, building a creative vision in which you reject conventional thinking and then building an action plan.

It is a simple approach that artists, composers, authors, designers and other creative people have been using for centuries. The only thing I have done here is to create an easy-to-follow process for using ACT.

Give it a try and let me know what you think!



ACT SERVICES



Workshops

I regularly run interactive one and two day workshops on the ACT process. The workshops are fun, exceptionally interactive and most importantly leave you and your team with the ability to use ACT in order to build creative visions and make them happen.

"This is one of the best workshops we have ever organised. It is highly intellectual, splendid with extraordinary resources and activism. We really appreciate your remarkable efforts, exemplary cooperation, humble attitude and excellent interaction with our team." – Innovation Manager at **Almajdouie**.

Facilitation

Do you need well developed, realistic creative ideas for a specific situation? If so, ACT is a great method for understanding the situation in question, building a creative vision and drawing up a viable action plan. I can facilitate an ACT session that will leave you inspired and ready to act!

"I could not be more pleased with the final result. In spite of the fact that the workshop participants were people who, I think, would never try to participate in an event devoted to creativity - company and university top managers - Jeffrey made them enjoy creative thinking and produce a result that, if implemented, will give origin to many improvements in the Algarve region." – Portuguese Association for Creativity and Innovation about a project to get business and universities to collaborate on regional development.

Speaking

I have spoken about ACT and other innovation related topics at conferences in Europe, Africa, Asia and Australia. I am also available to speak about ACT or many other creativity related topics at your next event. My talks are noted for their humour, energy and provocativeness.

"An energetic & stimulating speech on the future of creative idea generation!!" – TEDxULB (Université Libre de Bruxelles)

Your Event

I would love to do something with you and your colleagues to help stimulate creativity as I have done with companies, government offices and non-profits around the world. Get in touch and let us talk about what would work for you.

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