Appendix

10 Strategies for Thinking Creatively

Introduction

In this chapter, we will develop 10 strategies for thinking creatively, 20 methods for stimulating creativity, and 40 creative techniques. They are designed to help HR managers in their everyday work, with the aim of stimulating creativity within organizations. In the context of stimulating creativity, it can be difficult to understand the difference between a strategy, a method, and a technique. In order to clarify these differences, we use an analogy: building a house.

The strategy is analogous to the architect's drawings. The method is analogous to the choice of material used to build the house, e.g., wood, concrete, marble, glass, and so on. Obviously different tools will be used, depending on the type of house being built. For a wooden house, one needs a hammer, nails, a saw, and so on. The same applies when attempting to stimulate creativity. There is a link between the chosen strategy, the methods used, and the tools applied.

Strategy 1: Shifting perspective

This strategy involves shifting our perspective in an ongoing situation. One approach here is to categorize our shift in perspective systematically, considering it from four different angles. First, we look at the problem or challenge from our own perspective. Here the question is: How does this benefit me? Next, we consider the other party's perspective. Here the question is: How does this benefit the other party? The third angle is to attempt to see the whole problem from the perspective of a neutral observer. Here the question is: How would a neutral observer consider this problem or challenge? The fourth angle is to try to see how the problem or challenge will affect the larger system of which the business is a part. Here the question is: How does the problem or challenge affect the larger system? In this article, we refer to the four integrated perspectives as the "systemic perspective".

The technique here is to ask questions that seem naive; however, this mode of questioning will reveal structures that are the opposite of naive. One can make the other open up by consistently asking so-called "banal" questions. This technique enables us to delve deeply into the underlying structures of the other, by

Evidence-Based Innovation Leadership, 173–196

doi:10.1108/978-1-78769-635-820181011

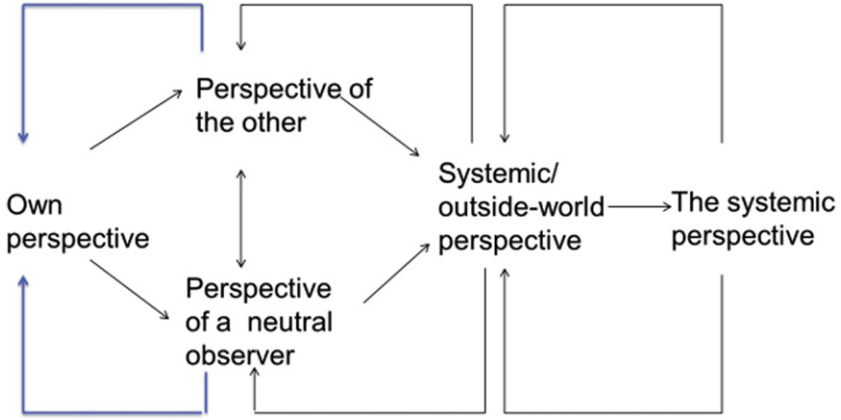

Fig. A1: The Systemic Perspective.

continuously asking "banal" questions. In this context, Michalko (2001, p. 47) says: "Get in touch with the child inside you."

Exercise:

Starting with a problem or challenge that is difficult in your school, use the four perspectives to investigate different aspects of the problem or challenge. Preferably, work in groups when doing this exercise.

Method 1: Investigate your own premises, assumptions, and those of others

Our perspectives will always be colored by our experiences. We should therefore take into account the premises and assumptions upon which our own statements and those of others are based, when attempting to solve a problem or deal with a challenge. Because we are often misled by our own perceptions and pre-conceptions we should—if possible, try to develop quantitative measurement indicators. For instance, that which is physically distant seems smaller than that which is physically close. In addition, that which is distant in time is distorted in a different way from that which is close in time. If we base ourselves on some objective indicators, we may more easily agree on the starting point and avoid unnecessary controversies. If we do not rely on objective indicators, i.e., those that can be tested by others, then the "everyone believes that" syndrome may easily result in a minor initial error leading to major negative consequences later on. On the other hand, we should be aware that when someone introduces objective indicators, they might be doing this for a particular purpose, which might not have a positive intention. Consequently, we should also challenge the so-called objective indicators.

When someone sets a limit, no matter what type, always try to expand this to see if any possible solutions may be different. The reason for this is that limits

always set the framework for possible solutions. Consequently, expanding the limits will always affect the assumptions that others or we have. The question that should be considered is: What is the problem or challenge?

Technique 1: Shifting perspectives

Replace a random perspective concerning a problem or a challenge with another random perspective, and continue doing so until a new idea emerges.

Technique 2: Drawing cards

On different cards, write down your own perspective, the other party's perspective, the perspective of a neutral observer, and the effect on the system as a whole. In addition, ask the other party and a neutral observer to write down their perspectives. Work together to develop the systemic/outside-world perspective. Then pick a card at random and try to develop ideas based on the perspective described on that card. After a predetermined amount of time, draw the next card, and try to see the problem from that perspective.

Method 2: First the whole then the parts

Taking the overall situation as your starting point, investigate the existing contexts. Once you know how the individual parts fit into the larger context, divide up the overall situation. Our own perspectives, and those of others, will change when we bring in contexts, relationships, and connections. Every problem is always part of a larger problem. Together, these problems comprise a complex problem. Accordingly, we must establish an overview of the whole situation before starting to explore its various aspects, because this will provide us with a different approach to finding a solution. The question of how far we should go—or where we should set our limits – will always come up. In general, the answer will depend on the specific problem or challenge which is in focus. In this method, the following questions need to be clarified: What is the larger problem of which this particular problem is a part? Where is it expedient to set our limits for the wider system? How does the problem we are focusing on affect the smaller problems that are part of the problem in focus?

Technique 3: Influencing

Take as a starting point the whole picture of which the problem is a part. Ask the questions:

- Who is affected by the problem?
- Who else may be affected?
- When are they affected?
- How are they affected?

- What can you do to influence these people in a positive direction—seen from their point of view?
- Which processes can be initiated to produce positive consequences?

Technique 4: Connections to other problems

Take as your starting point the problem in focus. Is there another problem connected to this problem? Is there another approach that may result in consequences that are more positive? Can you replace parts of the problem complex with other parts? Can you change any relationships that will affect the problem? Can you view the problem in a different way?

Strategy 2: Try to visualize how you think

The expression: "I'll believe it when I see it" is relevant to this strategy. You can also turn the expression around and say: "I see it when I believe it." The point of both expressions lies in the verb "to see." Weick (1979, p. 134) expresses the same in a more insightful manner: "How can I know what I think until I see what I say?"

Try adding color, sharpness, depth, brightness, sound, scent, and taste to your thoughts. Set down your ideas in a visual form, such as models, diagrams, images, graphs, and so on. Look for critical contexts and critical variables. In addition to this, look for factors that are less critical, but may yet be decisive for the outcome. Identify which of these variables will really make a difference. Develop conceptual models, i.e., models where the smallest units are ideas or concepts. Imagine how these models could be applied in a practical context. When you are thinking about how these models could be applied in practical everyday situations, apply color to the events in your imaginary theater: add sounds, scents, and tastes to what is happening.

The point of visualizing is that language locks us into structures that fail to capture the complexity of reality. We literally talk ourselves away from the creative zones that lie within the range of our perception and into fixed linguistic structures. Michalko describes this phenomenon in his essay "On Truth and Lies": "Friedrich Nietzsche made a brilliant argument that a verbal description of reality was rendered impossible by the structure of language itself" (2001, p. 52). Visual representations free us from the structure of language and bring out the creative elements: "When Einstein thought through a problem, he brought in terms of visual and spatial forms rather than thinking along purely mathematical or verbal lines of reasoning" (Michalko, 2001, p. 52).

Exercise:

- Starting with a problem that is difficult at your school, visualize the problem, for example, by using models, drawings, charts, etc.

Method 3: Modular understanding

Try to view a problem or challenge as consisting of "Lego bricks," which may be combined in many different ways. By using the Lego brick method, we break down established structures, allowing us more access into the problem or

challenge with which we are dealing. When the Lego bricks change places, new relationships always occur and new images emerge.

Technique 5: Modularization

The questions relevant to this technique are the following:

- How can the problem or the challenge be broken down into smaller parts?
- How can the parts change places?
- What new relationships occur when the parts change places?
- What new images and ideas can be developed when the parts change places in the established structures?

Technique 6: "Lego bricks"

Take as your starting point the problem in focus:

a. Identify at least three Lego bricks from this problem.
b. Give each Lego brick at least three characteristics.
c. Remove a Lego brick and see if the problem changes in character.

Method 4: Lego bricks in groups

Present the problem or challenge for a group of approximately 30 people. Divide the group into several subgroups, for example of five to six people. Allow each subgroup to divide the problem or challenge into smaller parts (Lego bricks). Assemble the subgroups after roughly 2–3 hours and let each of them present their Lego bricks. Draw random relationships between the various Lego bricks from the various groups. Consider this as the new set of Lego bricks into which the problem has been divided. Now ask each group to return to their respective rooms to investigate the original problem or challenge, based on the new group of Lego bricks. After roughly 1 hour, assemble all the groups and investigate how the original problem can now be solved. Continue this procedure until the problem is solved.

Technique 7: Lego bricks and the "Disney Method"

Identify at least three Lego bricks from the relevant problem. Consider each Lego brick in relation to the "Disney Method," i.e., using the thinking styles of outsiders, dreamers, realizers, and critics.

Technique 8: Grouping preexisting ideas

Review at least seven ideas that you have already developed and tested out on the relevant problem. Make links between all seven ideas, so you now have 42 new relationships $N(N-1)$. Name these new relationships, and then group them in any

way that seems appropriate. See if some of these new combinations contain opportunities for creating effective solutions.

Strategy 3: Think in volumes, not quantities

"Grains of gold" aren't collected in volumes. A "grain of gold" will exist as a single grain among thousands of tiny gray grains of sand. To produce one "grain of gold," we must be prepared to make so many mistakes that the single "grain of gold" will emerge slowly, in the same way that a pearl grows around a grain of sand in an oyster. A person who must always be so well prepared that only the best is ever good enough will never perform at a high level. "Yellow cards" are often handed out to the highest achievers, because these are the people who constantly test boundaries in order to perform better. Even the best performers generate more ordinary output than "grains of gold." It is a complete misapprehension to think that creative geniuses produce masterpieces all the time (see Michalko, 2001, p. 85). They do produce masterpieces, but the reason for this is that they are producing work constantly—most of what they produce, however, is unremarkable. It is not for nothing that we often hear that creativity is 99% effort and 1% inspiration. One of the explanations why such a person may find the single "grain of gold" is that he/she has learned through constant effort what doesn't work. There is just as much wisdom in knowing what doesn't work as in knowing what does.

In this context, the HR manager should not be afraid to make decisions without full knowledge of the consequences, provided he/she is willing to listen to feedback and change course based upon it. The point here is to open up to the many ideas that come from those who are affected by the creative new.

Exercise:

Starting with a problem or challenge that is difficult at your school, use the strategy to investigate different aspects of the problem or challenge. Work preferably in groups on this exercise.

Method 5: Analogies and metaphors that cause "explosions"

Take a problem, a challenge, or something similar as your starting point. Ask a group of between five to seven people to develop ideas for solving the problem by using analogies and metaphors. For example, the problem might be about organizing the day at school. First, develop a metaphor or analogy taken from the natural world for the problem. For instance, consider the following metaphors:

- The school day as a shoal of herring
- The school day as an anthill
- The school day as a beehive
- The school day as a flock of sheep, etc.

Taking one of the four metaphors as your starting point, develop three ideas about how the day at school should be organized. Do the same with the next metaphor, and so on. You will end up with 12 ideas. Now look for all the

connections that may exist between the 12 ideas. The answer is N(N-1), i.e., 132 connections. However, in practice, you can stop after you have found roughly 20 connections—which should be enough to trigger ideas for solving the problem.

Technique 9: Purpose

Find out the reason for trying to solve this problem. Find the purpose behind solving the opposite problem to the one in focus. Attempt to combine the two opposing purposes in order to create an innovative idea for solving the problem in focus.

Technique 10: Using analogies from nature

Find an analogy from nature related to the problem in focus. Then find an antonym of this analogy, such as a business being first compared to a prison, and then instead being compared to a refuge. Find at least three characteristics for both analogies. Combine these ideas. Develop new ideas using the new combinations.

Method 6: Standing on the shoulders of others

Don't look for creative new ideas that you think will captivate people. Attempting to do this is both difficult and highly risky, because among other things there is always the risk that someone that might say the idea is just similar to what you have done before. On the other hand, do look for ideas that have been rejected by others long ago, and put these ideas into a new situation and new context. The point here is that you can legitimately refer to classical literature in the relevant area.

The procedure is as follows. The starting point is always a problem or a challenge. Refer to classical literature that has dealt with the research area of which the problem is a part. This is done by carrying out a simple survey, either in a library or by other similar means. Select a starting point from the ideas you find, and develop them for the problem you aim to solve. Then develop a new concept that is better suited to the new context, while referring to the "authority" in the field. Use this concept to create as many ideas as possible. This can be done using method 5.

Technique 11: Comparative study

Based on the problem in focus, choose four random countries: from Europe, America, Africa and Asia, respectively. Find out how these countries have solved the problem.

Technique 12: Identification

Imagine that you are the problem to be solved. Try to identify yourself with the problem.

- How would you feel if you were the problem-bearer?
- How would you solve the problem?

Strategy 4: Recombine

Selecting different elements and then linking them together arbitrarily is a strategy often used in creative thinking. Linking different elements of knowledge that have not been linked together before can create new knowledge, which only emerges when someone deliberately puts the different pieces together.

When you connect ideas, concepts, information, knowledge, and so on, in new ways, you may often have the experience of viewing the problem in a completely new light. By experimenting with new ways of combining different elements, we are able to create innovative insights.

When ideas stand alone, they may be interesting. If ideas are linked together, the original and unexpected may emerge. It is the pattern of which the ideas are part of which changes, by combining the same ideas in a new way.

If we connect old and new things in new ways, then we need to give ourselves time to let possibilities appear, because we tend to return to established patterns; that is why playing with new combinations is a serious process. Taking play seriously is to understand that creativity emerges because of hard playful work.

Exercise:

Starting with a problem or challenge that is difficult at your school, use the strategy to investigate various aspects of the problem or challenge. Work preferably in groups on this exercise.

Method 7: Opening up possibilities

When we have a problem or challenge, it is a good idea to expand the possibilities. We can then consciously "look" into the future by imagining that we have solved the problem, then "turn around" and look back. When we look back, we can ask the following questions:

- What obstacles did we meet?
- What "spin-offs" should we have seen?
- Which colleagues and those opposing us should we have reacted differently toward?
- What should we have done at the start to make the work easier later on?
- Which critical incidents should we have tackled differently?
- Which critical events occurred and how should we have tackled them?

This method frees us from being directed by time, enabling the expansion of the creative new when we meet critical events in real time. Weick (1979) calls this method "future perfect thinking."

Technique 13: The desired situation

Take as a starting point the problem in focus. Write down in one sentence the desired situation. Write down in a second sentence what you intend to do to reach there. Write down in a third sentence the three largest obstacles that you must overcome to reach the desired situation.

Technique 14: The undesirable situation

Take as your starting point, the problem in focus. Write down in a sentence the situation that you do not want to become a reality. Write down in a second sentence how this undesired reality may come about. Write down in a third sentence what you need to do to prevent this from occurring.

Method 8: Preconceptions and realities

Imagine that ideas do not come from either yourself or other people but are encountered in some other place that exists between you and the surrounding world. Think of this place as an "ideas station." This ideas station is full of a mixture of subjective opinions and objective realities. Do not take this to mean that one is more correct than the other. Usually, we think that the subjective pertains to the individual, while the objective is something that can be tested. At the ideas station, we link the subjective and the objective. Some people will call the result a mishmash, and this is precisely our aim: to create an effective creative mishmash from the subjective and the objective (see de Bono, 1980).

What we do, when adopting such an approach, is to distort the map and the terrain until they are unrecognizable, so that we are forced to search for the path we should follow. It is during this search that new possible combinations arise, and new creative ideas emerge.

In general, this method is applied as follows:

- Take a problem as your starting point.
- List your own subjective ideas, opinions, intuitions, etc. about the solution to the problem.
- Make a list of research results that can be documented in relation to problem-solving.
- Link your own subjective ideas to these objective research results.
- Develop new "mishmash ideas" based on this linkage.
- Discuss the advantages and disadvantages of the ideas that were developed. Feel free to use the Disney Method, i.e., using the thinking styles of outsiders, dreamers, realizers, and critics.

Technique 15: What are they attempting to achieve?

Based on the problem in focus, ask the following questions:

- What situations trigger the problem?
- Those who trigger the problem—what do they hope to achieve with their actions?
- Is it possible to obtain what they seek to achieve in other ways so that they do not trigger the problem?

Technique 16: International researchers

Based on the problem in focus, list at least five perspectives that various international researchers at a relatively high level have presented in relation to:

- What triggers the problem?
- What the actors who trigger the problem are attempting to achieve.

Connect these insights to get to grips with the problem.

Strategy 5: Finding connections

The basis for this strategy is seeing opportunities where others see closed doors; juxtaposing things that other people think should be kept apart; finding connections where other people see none. This strategy is about finding links between different objects, ideas, variables, and so on, where most people would reject the idea of any such links existing. One of the reasons why this process ignites creativity is that our ways of thinking change when we link together objects or ideas that superficially have nothing to do with each other.

For example, metaphors are one way of linking different spheres of knowledge:

- The business as a prison
- The business as a hospital
- The business as an ecosystem
- The business as an instrument
- The business as a pathological system

According to Weick (1979, p. 47), metaphors offer linguistic flexibility and disrupt conventional thought patterns.

It is easy to spot a connection between a swallow and a plane. Now try a different comparison. What do you think of when comparing a swallow with a fish? A swallow cannot tell you anything about aerodynamics, but a swallow has within it information that is complementary to aerodynamic principles. If we link this idea to the water that a fish swims in, we may gain information about the relationship between water and fish. Then the metaphor could be: A swallow in the air is like a fish in the water. We could develop this metaphor further and say: The business is like a swallow in the air and like a fish in the water.

What we do, when putting together elements that do not seem to be related to each other, is that we alter the psychological framework around our ideas. It is precisely the context that we are dealing with, when we alter the psychological framework in communication situations.

Paradoxes that arise in communication when we connect elements that are not apparently linked lead to the development of interaction between parties communicating with each other, to humor, and to new ideas. If we only follow habitual patterns of thinking, we will have difficulty breaking out of established habits.

The basis of the strategy is therefore always to connect elements that should apparently not be connected. Let us take an example from science. In science, we say that we must first have a problem, from which we then develop a research question. If we challenge this way of thinking and say instead: in science, it is often the case that we do not know what the problem is before we solve it—what will emerge then? What will emerge is the search for new methods. What is also evident is that in scientific projects we must be extremely vigilant concerning "spin-offs," because these may be solutions to problems that we did not even know we were trying to solve.

An extreme technique that falls within this strategy is to take as our starting point a problem within the business or organization, such as bullying, integration, the development of social skills, and so on, and then develop outlandish metaphors. For example:

- Bullying as a shape in the clouds
- Bullying as figured wood grain
- Bullying as ashes in the fireplace

What is it that then emerges? The inconceivable emerges, and this is precisely the point. We do not have the slightest clue what it is, but we know that something has emerged. It is this emerged something, which one takes hold of and develops into an idea. This procedure is not new. Leonardo da Vinci used such inconceivable interconnections to develop some of his ideas (see Michalko, 2001, p. 140).

Exercise:

Starting with a difficult problem or challenge in your school, use the strategy to investigate different aspects of the problem or challenge. Work preferably in groups with this exercise.

Method 9: Blind variations and relevant connections

In this method, we take a problem as our starting point. We find an area, field of study, topic, etc., that is apparently completely unrelated to the problem. Then we juxtapose some random variables, objects or ideas, or similar items from the field of study/topic, with the chosen problem. Then we try to visualize connections between these two apparently unrelated areas. Finally, we try to force ourselves to develop relevant connections, which have the potential to solve the problem.

The classic approach with this method is to take completely random words and then force ourselves to find ways of linking them together. The objective is to free ourselves from our accustomed ways of thinking, in order to generate something creative and new.

Technique 17: Analogies from other areas

Take as your starting point the problem in focus. Find analogies and solutions to this problem in:

- Medical research
- Economic research

- Biological research
- Ethological research
- Ethnological research
- Theological research

Technique 18: The seasons and the birds

Take the problem in focus as your starting point. Try to find analogies using the seasons of the year. Think how a bird would solve the problem.

Method 10: Anti-benchmarking

Benchmarking involves comparing indicators, for example, in one business with similar indicators in another business, in order to learn where the other business is successful. This can be a good approach for improving efficiency. However, it is not necessarily a good way of making your business more creative than the business you are using as a comparison. Anti-benchmarking involves taking a problem in your own business as a starting point, then finding another business that performs even worse in this particular area. Next, choose variables that you think may be significant for why this other business performs worse in this particular area. The aim is to identify the social mechanisms that fail to promote the social processes that could improve performance in this area. In other words, the aim of this method is to identify the social mechanisms that hinder social processes, rather than identifying the social mechanisms that promote the social processes that improve performance. The basic question in this method is: Why are things going badly? In benchmarking, the basic question is: Why are things going well? It can be equally instructive to know what factors trigger bankruptcy, as to know what factors bring about success.

Based on the problem in focus, add a new problem that often appears to occur in tandem with the problem with which you are dealing. What relationships can you find between these two problems? Are there any solutions that emerge in these relationships?

Technique 20: Enlarge to see better

Based on the problem in focus, what would you do to make this an even greater problem? List at least five actions that would result in the problem getting completely out of control. Can part of the solution lie in how you can lose control of the problem?

Strategy 6: Think dialectically and in parallel

It may be effective to view a problem, first from one side and then from the other side, to investigate what enlarges and what reduces the problem. However, it may not be as effective for developing creative solutions to the problem. By using *pro*

et contra thinking, you can easily become locked within fixed boundaries. It is not certain that the boundaries even exist before you started *pro et contra* thinking. Boundaries may provide a better overview of a problem area, but they may also be illusory in relation to the real problem. Fixing boundaries may result in the creation of new problems.

For example, we impose a boundary between ourselves and the world around us. This is how we create an identity. However, "identity" may create more problems than it solves. *Pro et contra* thinking, which can be extremely effective in some contexts, can hinder creativity.

This frame-like type of thinking may be likened to a game of billiards, where specific limits are imposed on the rules of play. The places where we draw boundaries are precisely where the creative and new may emerge, for example, if we expand the boundaries and look at the larger system of which we are part.

According to de Bono (1992), *pro et contra* thinking and dialectical thinking ("billiards thinking") has its counterpart in parallel thinking. While dialectical thinking is limited literally by the limits that we set, parallel thinking removes these limits and provides opportunities for limitless thinking. While dialectical thinking brings stability to structures, with its approach based on thesis, antithesis, and synthesis, parallel thinking opens up opportunities for change.

The continuous interaction between stability and change, to which the link between dialectic thinking and parallel thinking leads, promotes creative diversity and stimulates the creation of ideas, challenges established patterns, and promotes practical solutions. The interaction between continuity and discontinuity is an example of the connection between dialectic and parallel thinking. The interaction between figure and background is another example.

Exercise:

Starting with a problem or challenge that is difficult in your school, use the strategy to investigate different aspects of the problem or challenge. Work preferably in groups with this exercise.

Method 11: Breaking thought patterns

Force yourself to find relationships between things that appear to be opposites. Doing so will generate new thought patterns, from which new ideas can emerge. First, look for differences between two objects or ideas. Next, try to find similarities between them. Once you have completed these two steps, go backward and forward between the differences and similarities.

Another approach to applying this method is to list completely random words on the right-hand side of a sheet of paper, and then list an equal number of random words on the left-hand side. Now look for differences between randomly chosen words. Next look for similarities. One explanation as to why new ideas emerge is that: "the human brain cannot deliberately concentrate on two separate objects or ideas […] without eventually forming a connection between them" (Michalko, 1991, p. 161).

Technique 21: Making things worse

Take the problem in question as your starting point. How can you make the problem deeper or broader, so that it extends to other areas? What could you do in order to ensure that the problem is worse next year? List the measures you would need to take in order to be completely confident that the problem will get worse. Does knowing how to make the problem worse suggest any solutions?

Technique 22: New problems

Take the problem in question as your starting point. What would happen if this problem disappeared overnight? What new problem could be generated by the solution to the problem?

Method 12: Attractor

For each action, a reaction occurs which eventually leads to a resultant. This pattern: action, reaction, resultant seems to be generic. In dialectic thinking, for example, one speaks of thesis, antithesis, and synthesis, which expresses the same pattern. When you find an idea in a research report – then look for the reaction that can be trigged by this idea. Then try to imagine the resultant over a slightly longer time perspective. Then bring the resultant in as the new idea, and develop practical implications from this idea. Another procedure using this method is to take as a starting point lists of different words and expressions. Once you find an expression that you think fits the current situation, try to find the opposite of what this means and then find the resultant. The only limitation is that you should keep the problem in focus. Instead of words and phrases, you can also use symbols from, for example, a symbol lexicon. These are picked out randomly and then put together.

Technique 23: Overdramatizing

Start with the problem in focus. What attention would this problem attract from the media, if what is really happening became public? By overdramatizing the problem, could this attract attention and reduce the problem?

Technique 24: Market

Based on the problem in focus, imagine the school playground as a market. Over what percentage of this market does the problem have control? How can you put in place measures to control the market?

Strategy 7: Removing the context

This strategy is based on a part–whole understanding (see Bateson, 1972, p. 416). We will look at how the part says something about the whole; for example, how the clouds can tell us what weather to expect, i.e., some types of clouds are both part of a storm and can signal that it is coming. However, the parts need not be as

closely connected as in this example. The point here is to force the part to fit into a larger pattern, and then see what contexts can be created from this. It is also possible that the part which we take as our starting point is completely separate from the whole into which we force it to fit. The point of this strategy is not to be relevant, but to create relevance by forcing the parts to fit into the larger wholes. What we do when we force the parts (that are apparently not relevant to the whole) to fit into the whole is to remove the context from the relationships. When the context is removed, we become freer to create the new. The idea here is that, as a rule, we follow established habitual patterns that fit into a familiar context. By removing the context, we open up the scope of opportunities. We self-correct when we experience disturbances to our normal mode of thinking, says Bateson (1972, p. 429), which can explain our conservative thought patterns. However, when we remove the context, we let go of thoughts and completely new ideas may arise. The more we connect the parts and wholes to familiar contexts, the more conscious we become about what is possible and what is not possible, and we slip into convergent thinking loops. This leads us away from the creative new and into rational, logical, and reasonable choices. We can avoid this by removing the context that sends messages about how we should think.

We have little insight into the relationships below the surface; it is these relationships under the visible surface that this strategy is trying to reveal.

Exercise:

Start with a problem or challenge that is difficult in your school, and use the strategy to investigate various aspects of the problem or challenge. Work preferably in groups with this exercise.

Method 13: Metaphorical scenarios

First, think of a metaphor for the problem in question. For example, an anthill could be a metaphor for bullying. Imagine the bully and the bully's victim as two ants in this anthill. Question the two people involved about their attitudes to their specific roles in the anthill. By putting these two people into the context of an anthill, something new will emerge. It is at this precise moment—the moment when the context is removed or changed—that the parties to a context-free dialogue can try to develop ideas that may resolve the conflict. Metaphorical scenarios were one of the methods used by Einstein for problem-solving (see Michalko, 2001, p. 212), so this method has been well tested in practice.

Technique 25: Dividing the problem into three parts

Based on the problem in focus, divide the problem into three parts that are linked logically. Then try changing one of the elements, so that it influences the other two elements positively.

Technique 26: Self-fulfilling prophecy

Based on the problem, focus on the person who is most central in the problem complex. Give this person positive feedback for something he/she does over a

period of 2 weeks. Get everyone involved so that the person in focus is given only positive feedback, even for the smallest things that this person attempts to do well. Beforehand, tell the person concerned what you are going to do, so he/she understands the behavioral changes that you are going to initiate. Assume that all the parties' intentions are basically positive. After 2 weeks, discuss how the problem has evolved. The person who has received the positive feedback should be included in this dialogue. Listen especially to what he/she has experienced during this process.

Method 14: Changing the context

This method can be applied as a kind of game, where the rules of play are deliberately altered when the context is changed. Take the problem in question as your starting point. Link this problem to the setting where it usually occurs, for example, bullying in the school playground. The setting is the context that sends certain signals to both the bully and the victim. Let the parties involved play this game. The person who is in charge of the game has invented four other settings. The players must try to see the bullying in light of each of these settings. Examples of the four settings might be:

- Working at a fire station
- Working in a gynecology ward
- A flock of birds migrating southward
- A funeral

The players should attempt to identify the signals which these different settings send to the bully and the victim.

After working on this for a while, you should return to the normal context, and ask for ideas from those who participated in the game as to how to apply the game to the normal context.

Of course, you will not be using the words "context" and "signals" when discussing this with the players. You will use words and expressions appropriate to the players' level of understanding.

Technique 27: Psychological gain

Based on the problem in focus, how can you make this problem attractive to those who think it is essentially a negative problem? Will focusing only on the positive aspects of the problem help you to find the solution (i.e., some people will experience the "problem" as having positive aspects).

In order to get to grips with this technique, identify five problems affecting the business. Taking each problem separately, identify in what ways it is positive for some people that the problem is maintained. The thinking here is that if it is not positive at some level for someone, then the problem would have disappeared by itself.

Technique 28: The outcasts

Based on the problem in focus, involve three people with whom you would preferably not want to work, in order to solve the problem. For example, a convicted criminal with whom you do not really want to become involved, a homeless person, an outcast in your local area, etc. Listen to how they would solve the problem.

Strategy 8: Systemic strategy

Bateson (1972, p. 434) says the following: "I use 'wisdom' as a word for recognition of and guidance by a knowledge of the total systemic creature. Lack of systemic wisdom is always punished." Creativity is systemic in the sense that the problem upon which we focus is always associated with other problems. When finding the solution, you will always profit from being aware of this fact. When we do something to solve a problem and then end up with a completely different result from what we initially imagined, this is a possible consequence of the systemic nature of the problem.

What appears to be separate may be connected at a deeper level, in much the same way as electrical systems and magnetic fields. The point here is that if we work for a long time on a problem or challenge, then something interesting may suddenly appear, although this may seem to have no connection with what we are working on. It is at this moment that the new appears, when one investigates possible connections at a deeper level. This is a creative strategy that has been used in many successful projects. This strategy focuses on taking advantage of what we do not expect to happen; i.e., we focus on the underlying pattern. One approach using this strategy is to look for connections that seem to lie beyond the problem area. One can look for those links that bind together at a deeper level, and which appear to have nothing to do with each other.

One of Freud's great discoveries in psychoanalysis was to connect elements that had not been connected before, for instance, the importance of childhood for adult functioning. Try to connect externally instead of internally. What happens, for example, if you say that your consciousness is part of the consciousness of others? This is not a new idea. Bateson (1972, p. 461) states the following: "The individual mind is immanent, but not only in the body. It is immanent also in pathways and messages outside the body; and there is a larger mind of which the individual mind is only a subsystem."

Our point here is not to state whether this is right or wrong. The point is to show that ideas can be developed by connecting to the larger system of which a problem, a phenomenon, a challenge, and so on are part. In this way, ideas can emerge, which we can develop into concepts and practical tools.

Exercise:

Starting with a problem or challenge that is difficult in your school, use the strategy to investigate various aspects of the problem or challenge. Work preferably in groups with this exercise.

Method 15: PMI (plus, minus, of interest)

Based on the problem in focus, when any idea turns up, take a blank A4 sheet of paper and divide it into three vertical lines. List everything you can think of that is positive regarding the idea in relation to the problem in focus in the left-hand column on the sheet of paper. Then list everything negative relating to the idea in the right-hand column. Finally, list all things that may be of interest in the middle column.

The point here is that this will enable you to change the way you think about any idea that emerges. It is possible the idea may still be rejected as uninteresting, but you have at least given it the opportunity to appear in different ways in relation to the problem in focus. It may also be the case that new ideas emerge while working on the original idea. The procedure is to immediately write down these new ideas, and then do the same with them as described above, until interesting aspects manifest themselves that can help solve the problem (see Michalko, 2001, pp. 231–232).

Technique 29: Problem bearers

Take the problem in focus as your starting point. Identify the critical problem bearers. For example, the person doing the bullying and the person who is being bullied. Take these two people into imaginary settings in which neither party would wish to be, such as a prison, a group of homeless people, a group of terminally ill patients, and so on. Create a dialogue group with the problem bearers and three people from each of these settings.

Technique 30: The problem is the solution

Take the problem in question as your starting point. How can you frame the problem as the solution to a larger problem? For example, aggression may be a problem in peacetime, but it may also be an essential quality in war. Is it possible that something that is a problem in one setting can be the solution in another?

Method 16: Category errors as creative quarries

When studying logic, we learn to say that something belongs to one category, while something else belongs to another category. Something exists on one level, while something else exists on another level. If we make a deliberate attempt to mix categories and logical levels, the result will be a category error.

In creative thinking, this may be done consciously, to bring forth what is apparently unrelated, in order to reveal underlying contexts. We are not interested in truth, but rather in opportunities, when we think creatively. The truth may come later, for example, when we are using the Disney Method that makes use of the thinking styles of outsiders, dreamers, realizers, and critics.

That which is possible can also be that which is probable—consequently, we can alternate between the possible and probable to see if we can find the

underlying pattern. For example, we can divide the possible into a great degree of opportunity, a medium degree of opportunity, and a low degree of opportunity. We take as our starting point that which has a small degree of opportunity and try to bring out ideas that can relate to the underlying pattern (see de Bono, 1992, p. 154). In this context, Bono states the following: "we can define possibility as any situation in which you could say maybe so" (de Bono, 1992, p. 157).

Technique 31: Expand the problem

Based on the problem in focus, take the problem out of the school context and into the larger society. How would the problem appear if it were an equally large problem for the larger society? Is it possible to visualize this in a model, a figure, or the like? What aspects maintain the problem, which may be important to certain people?

Technique 32: Focus on the "stupidest" solution

Based on the problem in focus, how can you imagine that this problem could be used to find a practical solution to another problem? What are the most stupid suggestions you have heard about how the problem can be solved? Is it possible that this "stupid" solution could actually be an insightful approach?

Strategy 9: Co-creation

Co-creation is not related to arguments—neither a good argument, nor arguments aimed at convincing or persuading. Moreover, co-creation is not linked to the Socratic method: "an endless search for truth through asking questions" says Bono (1995, p. 10). Furthermore, he states that the Socratic method characterizes the traditional western way of thinking (1995, p. 11); and "the Socratic method rests on the assumption that the knowledge is there, somewhere. This is by no means always the case" (1995, p. 13). The Socratic method is not linked to creative strategy; it focuses instead on what is, not on what is possible. We refer to this method here because it is often mistakenly related to genuine dialogue. Dialogue, as we see it, does not have arguments as its basis, but ideas, insights, possibilities, and opportunities. Michalko (2001, p. 255) says the following about dialogue: "The physicist David Bohm, while researching the lives of Einstein, Heisenberg, Pauli, and Bohr, made a remarkable observation. Bohm noticed that their incredible breakthroughs took place through simple, open, and honest conversations, …without trying to change the others minds and without bitter argument." The basic rules for dialogue are (Michalko, 2001, p. 256):

- Do not use arguments
- Do not interrupt the other party
- Listen with caution

In a dialogue, one must observe without prejudice, preferably without any preconceived concepts, although this is extremely difficult. One should try to set

the past aside and listen without considering or evaluating the other. It is important to let the other person present his/her ideas and views without interruption, without communication, either internally or externally. This is of course an almost impossible task, but through practice, this becomes part of the genuine dialogue, where the creative new develops.

In a genuine dialogue, you do not expect to gain anything. It is precisely when expectations of a result are set aside, that creative ideas can flourish. It is the child's open mind which is the basic metaphor of the dialogue.

Often, it is the notion we have in our minds that prevents us from seeing what could be the creative new in a situation. Co-creating in a dialogue means observing, listening, and seeing without prejudice, and not attempting to judge what is right and wrong, true or false, and so on. When using this strategy, we do not ask questions of the kind: What should we do with this? Arguments and analysis are left out of the creative dialogue. One technique for disconnecting analysis and argument is to deliberately introduce a large time-gap between someone who speaks and another who answers. In this time-gap, you will be able to observe your own reaction. You insert a pause into the dialogue, which breaks up spontaneous reactions. One could, for example, introduce into the dialogue a 2-minute time-gap between someone saying something and the other responding.

Exercise:

Starting with a problem or challenge that is difficult in your school, use the strategy to investigate different aspects of the problem or challenge. Work preferably in groups with this exercise.

Method 17: Collective structures

The term "collective structure" is taken from Allport (1962). Weick (1979, p. 91) states the following: "The crucial point in Allport's collective structure is that people converge first on issues of means rather than on issues of ends." This method takes a dialogue as its starting point, unlike the other 19 methods described here, which all focus on a problem. During a dialogue, creative ideas may emerge that can function as the basis for further investigation, using the 19 other methods. Using this method, you do not have to agree on the goal in order to act collectively. The only limitation is that the participants align themselves with the rules of the dialogue, as described in Strategy 9.

Technique 33: Syntegration teams

Develop dialogue groups that carry out a dialogue about the desired future of the business. Everyone should participate. One day should be put aside for this activity.

The dialogue groups should be assembled as follows:

a. The individual groups will be made up of roughly 30 members.
b. Each group chooses a leader.

c. Divide the group of roughly 30 into teams of five to seven people.
d. Each team selects a leader.
e. Team leaders meet together every other hour to exchange experiences and report this back to their respective teams.
f. The group leaders (of the groups comprising 30 participants or more) meet together every other hour to exchange experiences. This exchange of experiences between group leaders and team leaders should be synchronized.
g. The group leaders and team leaders meet together twice in one day to exchange experiences and report this back to the groups and teams.
h. The organization's management organizes the logistics of this group and teamwork.

The day before such an activity is undertaken, 2 hours should be set aside to explain and discuss the difference between a dialogue and a discussion, and what a dialogue presupposes. The technique of saying nothing for 2 minutes after others have said something can be used as a restriction to the dialogue; the team leaders should organize the logistics for doing this.

Technique 34: Microgroups

Arrange a day in which the whole organization is divided up into microgroups (groups consisting of three people). The microgroups will discuss the following topic: How can our organization be the best in the world? For each idea that emerges within the groups, they will present this to another microgroup. The organization's management will organize the logistics. The microgroup that has received an idea from another microgroup will develop it further and present their results to a third group. The third group will then put the idea into practice and bring it to one of the organization's managers who will function as a so-called listening post. These listening posts will have secretarial functions for the microgroups. At the end of the day, the organization's management will systematize and structure the ideas produced by the microgroups. Within no more than 14 days, everyone in the organization should have received feedback on **the measures** the organization's management plans to implement, based on the ideas that emerged during the group-activity day.

Method 18: The future

Michalko (1991, p. 151) points out the following certainty about the future: "We are all traveling toward the future at 60 minutes per hour." An interesting method to prepare for the desired future is scenario thinking, which enables us to prepare for alternative futures. Of course, we do not know if these imagined scenarios will ever appear in the future, but if they do, we will be mentally prepared and be able to react quickly.

Imagined scenarios may also become self-fulfilling prophecies, i.e., they happen just because someone pointed out that they could happen. The opposite may also happen, i.e., "contradictory prophecies," i.e., they do not happen, just because someone pointed out that they could happen.

As mentioned, it is a mistake to believe that "scenarios" are something that will happen. Constructing scenarios are primarily a method of learning to see the opportunities that can occur when we move at 60 minutes per hour into the future.

The actual structure of creating scenarios is well described by Michalko (1991, p. 153):

a. Identify a problem or challenge.
b. Identify the decisions that should be made.
c. Identify the critical forces (economic, technological, political, cultural, social, etc.) that influence decisions.
d. Develop four or five scenarios based on critical forces.
e. Develop scenarios for stories by varying the strength of the critical forces that influence decisions.
f. Look for opportunities within each of the scenarios.

Technique 35: Four scenarios

Based on the problem in focus, develop four scenarios for the problem, where you include the "worst case scenario" and the "best case scenario." Discuss what must happen for each of the scenarios to:

a. Occur
b. Not occur

Technique 36: The ideal scenario

Based on the problem in focus, develop an ideal scenario, i.e., based on a desired future, and develop a scenario for how to get there.

Strategy 10: Autocatalysis

The more ideas we have, the more ideas we will be able to develop. The point here is to develop a critical mass of ideas, from which we can then create new ideas. The thinking here is that ideas are self-reinforcing in the same way as, for example, bacteria are self-reinforcing, aggression is self-reinforcing, and violence is self-reinforcing.

When ideas first reach a critical mass, they accelerate under their own weight. Just as separate parts of knowledge can generate new knowledge when connected to each other, ideas will generate more ideas if they are linked to each other. The thinking here is that every idea provides the opportunity to trigger something creative. However, there is a specific limit, a threshold value, which must be

exceeded before ideas can generate themselves. To move the ideas across this threshold, you need to develop a critical mass of ideas related to the problem in focus. You then connect these ideas, and a self-reinforcing mechanism brings together some of the ideas, so that new practical solutions will emerge. Separately, none of these ideas would probably result in the practical possibilities to which the coupling of ideas can lead.

Exercise:

Start with a problem or challenge that is difficult in your school. Use the strategy to investigate different aspects of the problem or challenge. Work preferably in groups with this exercise.

Method 19: Splitting up ideas

Based on the problem in focus, develop two ideas that, individually, do not seem to solve the problem. If, however, one of the ideas proves to be a potential solution, then, of course, nothing is better than that; but we will assume that neither of the two ideas on their own can solve the problem in focus. Now take each of the ideas and divide each of them into four parts. You now have eight separate parts that, individually, do not seem to offer any clarity. Now take each of the eight parts and connect them, one by one, with the other seven parts. This will give you a total connectivity of idea parts of 56 (N (N−1)). Use these 56 connections as an arsenal for idea creation.

Technique 37: The definition of the problem is not the same as the power to define the problem

Take as your starting point the problem in question. Define the problem. Try to sell your definition of the problem to a central group who are so-called problem bearers, i.e., the people who actually cause or experience the problem. Change your definition during this meeting, so that they gain influence over the definition of the problem. Then take this definition as the starting point in your meeting with the problem bearers, in order to develop solutions based on the definition at which you arrived together.

Technique 38: The model of the problem is not the same as the power to define the model

Take the problem in question as your starting point. Develop a model for the problem.

Try to sell your model of the problem to a central group who are the so-called problem bearers, i.e., people who actually cause or experience the problem. Change your model during this meeting, so that the problem bearers gain influence over the modeling of the problem. Then take this model as the starting point in your meeting with the problem bearers, in order to develop solutions based on the model that you arrived at together.

Method 20: Seeing, feeling, and hearing an idea

Take the problem in question as your starting point. Develop a simple idea that, in itself, has no potential as a solution. For example, you could present an idea that has been proven to lack the necessary practical force to solve the problem.

Now think about this idea. First, visualize it. For example, you could draw or model it. Next, add sound to the idea in your own imaginary theater. Regardless of what the sound is, it must be capable of being expressed. Then describe the idea using two feelings. For example, link it to joy, sorrow, amusement, and so on. You now have an idea that is visualized, which has a sound, and is linked to specific feelings. Now put together these various elements and see whether new ideas emerge from the original idea.

Technique 39: What we do not know that we do not know

Do the following based on the problem in focus:

a. Write down the three most important things that characterize the problem.
b. Write down the three most important things you do not know about the problem.
c. Write down one thing you do not know that you know about the problem.
d. Write down one thing you do not know that you do not know about the problem.

Obviously, points c and d will cause problems, but it is likely that the solution may be found in precisely point c and more obviously in point d.

Technique 40: Thinking away the problem

Based on the problem in focus, imagine that there is no longer a problem.

Which patterns will change if the problem does not exist? What new patterns will be established? How can you change two critical variables in the old pattern to affect the development of the new pattern you can see, if the problem in focus no longer exists?

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