Conceptual Blockbusting Summary

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During Q2 2008 I read *Conceptual Blockbusting: A Guide to Better Ideas* by James L. Adams as part of my personal development goals. This is my summary of that reading. Much of the value of this book is working through the exercises throughout, so if you are really interested in the material, you should read it for yourself.

Adams motivation in writing this book is to introduce people to ways to improve their idea generating ability. Adams makes the claim that having good ideas does not require genius (although that does not hurt). Most people fail to have good ideas because of conceptual blocks. A conceptual block is anything that blocks someone from having a good idea.

The first half of the book describes different types of conceptual blocks and contains a number of exercises to help the reader understand the blocks and how to avoid them. Some of the exercises are best done with more than one person; I was not able to do those.

The second half of the book discuses strategies for overcoming conceptual blocks on the individual, group, and organizational level. Although the first half the book also talks about how to avoid blocks, the second half of the book goes into more detail about specific strategies for avoiding blocks.

Not all blocks apply to all people. Everyone has different strengths and weaknesses. Some blocks will seem nonsensical and learning about others may feel like a revelation.

It is also important to note that Adams does not claim that creativity is the be all and end all. However, he chose to focus on creativity in his book because he feels that, in the context of the group he is writing for (Americans with at least a fairly decent education), creativity is an underdeveloped skill compared to rationality and diligent hard work. All of these factors are important for success. First you need to have a creative idea, then you need to check whether or not it is reasonable, and then you need to implement it.

The different conceptual blocks

Perceptual blocks

Summary: Perceptual blocks prevent you from clearly seeing the problem or the information you need to solve it.

Block: **Detecting what you expect, a.k.a., stereotyping.**

Description: Allows you to process incomplete data by putting it in an existing mental box.

Example: Professors are liberal.

Problem: Once data is labeled, people will stop probing for more information.

How to avoid it: Be aware of when you are stereotyping and probe deeper if you can.

Block: **Difficulty in isolating the problem**

Description: Trying to solve a symptom rather than the problem itself.

Example: Someone always has headaches, have them take ibuprofin.

Problem: Solving the symptom does not lead to long term solutions.

How to avoid it: Look for the root cause of a problem.

Block: **Tendency to delimit the problem area poorly.**

Description: The scope of the problem is perceived to be broader or more narrow than it really is.

Example: With 4 lines, draw through all of the dots in a 3x3 grid.

Problem: Defining a problem too broadly can make it overwhelming. Defining a problem too narrowly can hide solutions.

How to avoid it: Rephrase the problem to show which constraints are real and which are only apparent.

Block: **Inability to see the problem from various viewpoints.**

Description: Preference for deeply looking at the problem from your own point of view (vertical thinking).

Example: Nearly any problem you have with another person.

Problem: Looking at a problem from only one point of view can lead to a suboptimal solution that is not satisfactory to all stakeholders.

How to avoid it: Use lateral thinking and shallowly look at the problem from many viewpoints.

Block: **Saturation.**

Description: There is a lot of information, and we do not absorb very much of it.

Example: Remembering all of the details of an everyday object.

Problem: Sometimes the unobserved data is highly relevant.

How to avoid it: Look at the world in different ways (e.g., art students looking at things upside-down). Go back and look again if you think you missed relevant information.

Block: **Failure to utilize all sensory inputs.**

Description: Our education system selects for verbal skills, leading to other senses being underutilized.

Example: Try to design a concert hall without thinking about sound.

Problem: Some problems and many solutions have a sensory element (e.g., products have an appearance). Ignoring the senses can lead to solutions that offend those senses.

How to avoid it: Consider all sensory inputs. Interact with existing systems.

Emotional blocks

Summary: Emotional blocks interfere with your ability to explore, develop, and communicate ideas.

Block: **Fear of taking a risk.**

Description: A common emotional block that manifests itself as not wanting to look stupid or wrong and the fear of danger. Fear can be useful.

Example: Not wanting to make animal noises in front of other people.

Problem: Fear are easily blown out of proportion.

How to avoid it: Do a realistic analysis of the worst case scenario and then judge

whether or not the negative consequences are large enough to offset the positive.

Block: **No appetite for chaos.**

Description: Inability to tolerate ambiguity. An overriding desire for order. May create efficiency. Order may help with the execution of a plan.

Example: A need for a physical environment to have an unchanging, well defined layout.

Problem: Initial problem statements and initial solutions are chaotic. Problem solving is non-linear.

How to avoid it: Accept that the problem solving process brings order to chaos. This is only possible if you start with the chaos.

Block: **Judging rather than generating ideas.**

Description: Preferring to judge ideas rather than create new ones. Judging ideas can be a valuable way to discriminate between ideas. It can also make you look smart.

Example: Judging whether a person is guilty or innocent of a crime.

Problem: Judgment can cause ideas to be dismissed too early. A preference for judgment may prevent ideas from being generated in the first place.

How to avoid it: Give ideas a chance, even if they seem wacky.

Block: **Inability or unwillingness to incubate.**

Description: Believing that a problem is best solved by thinking about it constantly and consciously.

Example: Doing a difficult assignment last minute.

Problem: Solutions often come when you have thought about it, stepped away, and returned.

How to avoid it: Acknowledge that problem solving takes time. Take breaks from the problem.

Block: **Lack of challenge.**

Description: A problem is not seen as interesting or challenging. All motivation is extrinsic.

Example: Doing a job you do not care about.

Problem: Extrinsic factors can provide some motivation, but quality solutions come when you are willing to engage with a problem for its own sake.

How to avoid it: Try to find an interesting aspect to the problem. Work on a different problem.

Block: **Excessive zeal.**

Description: Desire to succeed and succeed quickly.

Example: The hare from "The tortoise and the hare".

Problem: Wanting quick success prevents deep thinking that is conducive to creativity.

How to avoid it: Slow down, take your time, and engage with the problem.

Block: **Reality and fantasy.**

Description: Inability to control your imagination, either because it is not detailed enough or because it is detailed to the point of causing you fear or discomfort.

Example: Not being able to imagine breathing water or not being able to imagine it without feeling like you are drowning.

Problem: A well controlled imagination is an invaluable asset when trying to be creative.

How to avoid it: Practice, practice, practice.

Cultural blocks

Summary: Cultural blocks prevent you from looking outside of boundaries imposed by the various cultures you belong to. The blocks in this section are mostly what Adams perceives as being blocks common on the U.S.

Block: **Taboos.**

Description: Taboos are directed against acts that would cause displeasure to people in a society. They can play a useful role in a culture.

Example: Bathing and elimination are taboo discussion topics in the U.S.

Problem: Taboos eliminate many solutions. They are accepted without further reflection.

How to avoid it: Realize that imagining a violation of a taboo does not hurt anyone and may lead to a creative solution.

Block: **Fantasy and reflection are a waste of time, lazy, even crazy. Playfulness if for children only. Problem solving is a serious business and humor is out of place.**

Description: Problem solving is an adult activity. Play and fantasy do not belong.

Example: A humorless planning meeting.

Problem: A relaxed, playful atmosphere makes people more creative. Playful or humorous solutions can lead to practical solutions.

How to avoid it: Accept and even encourage silliness, play, and reflection when being creative.

Block: **Reason, logic, numbers, utility, practicality are good; feeling, intuition, qualitative judgments, pleasure are bad.**

Description: Hard quantitative values are seen as better and more reliable.

Example: Ignoring the emotional side of problems like health care.

Problem: Most problems do have an emotional, qualitative, aesthetic aspect because, at some level, the problems and solutions interact with people.

How to avoid it: Acknowledge that both reason and intuition are good and have their place. Try to use both actively.

Block: **Everyone should be like me.**

Description: People often think that their view is the only right view.

Example: Religion, politics.

Problem: Many people can have reasonable view points even if they disagree with you. A priori, here is no reason to assume that your point of view is more valid than theirs.

How to avoid it: Try not to stereotype. Accept that others may be right and you may be wrong.

Environmental blocks

Summary: Environmental blocks are blocks caused by the environment in which you are trying to do work.

Block: **Distractions.**

Description: Things which take attention away from your task.

Example: Phone, email.

Problem: Distractions make it hard to work.

How to avoid it: Try to put yourself someplace where you will not be distracted. Remove distractions that you might seek out (e.g., much of the internet).

Block: **Lack of cooperation and trust between colleagues, including authority figures.**

Description: Fairly obvious.

Example: A boss does not listen to ideas from subordinates.

Problem: People will not be willing to be open and creative in front of those they distrust and willl not accept ideas from those people.

How to avoid it: Try to create an environment of trust or move to one if you cannot. Create an environment where criticism is accepted and acted upon.

Block: **Lack of support to bring ideas into action.**

Description: Ideas languish because there are no resources or desire to implement them.

Example: A new product that is never brought to market.

Problem: Ideas are often ignored because they are too radical or because people are too busy, not necessarily because they are bad.

How to avoid it: Do not allow every idea to go through, but make sure there is a path for getting new ideas evaluated and implemented.

Intellectual blocks

Summary: Intellectual blocks are the result of having an insufficient variety of techniques for approaching problem solving.

Block: **Choosing the wrong problem solving language.**

Description: Some problems should be solved visually, some mathematically,

some verbally.

Example: Trying to solve a geometric problem verbally.

Problem: A problem may be easy to solve with one method but impossibly difficult with others.

How to avoid it: Choose your problem solving language consciously. Become comfortable with many different problem solving languages.

Block: **Inflexible or inadequate use of intellectual problem solving strategies.**

Description: Strategies are approaches such as "simulate", "work backward", and "generalize". This block involves always using the same strategies to approach problems.

Example: You always try to solve problems by generalizing them to already solved problems.

Problem: Like with problem solving languages, not all strategies work with all problems.

How to avoid it: Become aware of more strategies. Be aware of the strategy you are using.

Block: **Lack of, or incorrect, information.**

Description: Fairly obvious.

Example: Environmentalists who lack quantitative data about habitat destruction.

Problem: Both the lack of information and incorrect information can cause the development of solutions that do not address the problem properly.

How to avoid it: Gather more information. Familiarize yourself with different fields. Be aware, however, that too much information can be distracting. Keep it relevant.

Expressive blocks

Summary: Expressive blocks are limits in your ability to communicate ideas to yourself and to others.

Block: **Inadequate skills to express and record ideas.**

Description: You may be trying to express an idea in the wrong language or you

may not have the skills to express an idea in the appropriate language.

Example: You try to express an idea verbally when a picture would be better. You try to express an idea pictorially when mathematics would be more precise.

Problem: Solutions that are not communicated are not really solutions.

How to avoid it: Develop communication skills. Consciously decide how to communicate an idea.

Improving your creative thinking

After discussing the different conceptual blocks, Adams discusses various techniques for avoiding blocks and improving your creative thinking.

He discusses the three main thinking languages: mathematical, verbal, and visual. Mathematical thinking involves solving problems by way of formulas and equations. Verbal thinking involves solving problems by way of description. Visual thinking involves solving problems by way of vision. He briefly discusses strategies for improving these different thinking methods.

Adams then goes on to discuss how senses other than vision can be useful modes of thinking for problem solving. Smell, sound, taste, and touch can all lead to innovative solutions. For one, they are often neglected, so can be used to find solutions others have not thought of. Second, problems often have aspects that affect one or more of these senses, so it is necessary to engage them. Finally, the senses reinforce each other. The clarity of a mental image is increased if one uses all of the senses in creating it.

Adams also discusses various thinking styles that people might have (theoretical, applied, optimistic, precise, efficient, and many more). He discusses the advantages of having a particular thinking style (we become more proficient) and the disadvantages (we get into ruts). Oftentimes, the best of both worlds can be gained by having groups of people with different styles.

Adams discusses problem solving in groups and organizations more at the end of the book. I was focusing on individual creativity, so I will not cover those discussions further.

Conceptual blockbusters

Next Adams describes particular methods that can be used to get rid of conceptual blocks ("conceptual blockbusters" as he calls them).

The first and most important of these is: **have a questioning attitude**. Innovation is the result of questioning the way things currently are. One of the obstacles to cultivating a questioning attitude is fear of looking ignorant. To get over this fear, ask people basic questions and see that they are just as uncertain as you are.

The second blockbuster is: **work on the right problems**. We like to work on problems that are obvious or that are similar to problems we have solved before. Instead, we should try to find the core problems, even if they take us outside our comfort zone. One way of doing this is to list out all of your problems on a large sheet and draw dependency arrows between them until the root cause is found.

The third blockbuster is: **focus your time and effort**. One method of doing this can be list making. When using list making, it is important to allow yourself to list the "obvious" things as well as the new things. Oftentimes, thinking about the obvious things can cause you to have related ideas that are new. Particular types of lists are bug lists (lists of everything that bugs you, as a source of ideas) and check lists (of all the steps you might try when trying to solve a problem),

The fourth blockbuster is: **set breaking**. We tend to have a set of ideas about what something is. Often, this limits our ability to think about it in creative ways. One way of overcoming this limitation, is to break your mindset by listing attributes of an object or idea. Often, thinking about the attributes of something allows you to see it in new ways. Once you have a list of attributes, it may be beneficial to think of ways those attributes could be changed. For example, if you are trying to design a new pen, you might start with the attributes round, plastic, and retractable and modify those to get square, class, and capped.

The next blockbuster is: **using other people's ideas**. Interaction often gives people new ideas. Although U.S. culture often idolizes the loan inventor or innovator, but ideas are usually the result of building off of past ideas and bouncing ideas off of other people.

Crossing disciplines is another good conceptual blockbuster. Different fields have different ideas and perspectives on the same phenomena. Looking for the insights provided by different fields can provide new insights into the problem you are trying to solve.

The final blockbuster is: **crossing cultures and changing environments**. Often times, we get so use to the world around us that we do not see what can

be done differently. Changing your setting, culturally or physically, can provide a new view point. The change can also prove to be energizing which will get your creative juices going.

Conclusions

Adams has written a book that manages to cram a lot of information on creativity into 200 pages. He is clear about which of his statements are scientifically justified, which are justified by his experience and the experience of others, and which are just his own ideas. Overall, the book provides an accessible and concise overview of different blocks to creativity and how to overcome them. (Plus, the exercises are fun!)