EDWARD DE BONO' S DIRECT TEACHING OF THINKING (CoRT) COMING TO SLOVENIAN SCHOOLS

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Abstract
De Bono is most certainly known as the conceptualist behind Lateral Thinking and his methodologies seem to generate from that concept. Lateral Thinking focuses on creativity and idea generation.
In reviewing de Bono's literature; the main frameworks that have been identified are: Lateral Thinking; D.A.T.T; CoRT1, The Six Thinking Hats, Simplicity and The Six Value Medals. The researcher's focus converges towards CoRT1. This was consciously done since it is the most used in the teaching of thinking skills in schools and is comprehensive of most thinking dispositions.
The above-quoted frameworks are best known in the sphere of education, they are also applied in other areas such as business.
The idea of teaching thinking directly as a subject in its own right may seem very obvious. And so it should. However, there have been various approaches developed over time to teach thinking, most of which have been an outgrowth of the natural ability to think.
The essence of the CoRT Thinking Method is to focus attention directly on different aspects of thinking and to crystalline these aspects into definite concepts and tools that can be used deliberately.

Key Words: *Teaching, Thinking, de Bono, CoRT*

EDWARDA DE BONA METODA NEPOSREDNEGA USPOSABLJANJA ZA RAZMIŠLJANJE (CoRT) PRIHAJA V SLOVENSKE ŠOLE

Povzetek: De Bono je zagotovo najbolj znan kot avtor 'lateralnega razmišljanja' in za njegove metodologije je videti, da so izrasle iz te zamisli. Lateralno razmišljanje se osredotoča na ustvarjalnost in ustvarjanje zamisli. Če si ogledamo de Bonova dela, se dajo glavni okviri spoznati v 'lateralnem razmišljanju', D.A.T.T., CoRT 1, 'šest klobukih razmišljanja', enostavnosti in 'Šestih medaljah vrednot'. Tukaj se zavestno kot raziskovalci osredotočamo na CoRT 1, kajti gre za najpogosteje uporabljano metodo poučevanja spretnosti razmišljanja v šolah in za zgoščeno uporabo večine miselnih dispozicij. Omenjeni okviri so najbolj znani na področju vzgoje in izobraževanja, a jih uporabljajo tudi drugod, npr. v poslovanju. Zamisel, da bi poučevali razmišljanje neposredno kot samostojen predmet, se morda zdi samoumevna. In naj bi to bila. Toda v teku časa so razvili mnogo različnih metod za poučevanje razmišljanja, od katerih je večina izrasla iz naravne sposobnosti razmišljati. Bistvo CoRT kot metode razmišljanja je v osredotočenju pozornosti neposredno na različne vidike razmišljanja in v kristaliziranju teh vidikov v povsem opredeljene zamisli in pripomočke, ki se dajo uporabljati namensko.

Ključne besede: poučevanje, razmišljanje, de Bono, CoRT

Introduction: "*Thinking is the most fundamental human skill. The quality of our future is going to depend entirely on the quality of our thinking. If thinking is so important, can it be taught directly and explicitly as a subject? There is accumulating evidence that 'thinking' can be taught directly as a skill in its own right.*

About ninety per cent of the errors in thinking are errors of perception. The methods taught in this program seek to clarify, enlarge and enrich perception so that the response is more appropriate." Edward de Bono. (1. 10. 2010)

1. CoRT Thinking Program

CoRT is an educational curriculum for the direct teaching of thinking skills, devised of six modules each consisting of ten lessons. Published in 1973, CoRT 1-6 is a synthesis of research carried out by the Cognitive Research Trust based in Cambridge, England and modeling de Bono frameworks.
CoRT 1 is the most popular framework where tools have very particular names, each of which are three lettered acronyms accompanied by symbols, for short-term recognition and application by the learner. They are tools for focus, evaluation, information gathering, identifying priorities, decision-making, problem-solving and foresight and find formal space for Rules, Decisions and Planning. (Mifsud, 2008)
There is a growing feeling amongst educators that thinking is a skill that should be given direct attention. It is felt that thinking is a skill that can be improved by focused attention and the practice of some basic skills. The old idea

that skill in thinking is developed as the by-product of attention to specific subject areas, such as Geography or History is no longer tenable. Some thinking skills concerned with the sorting of information can be taught as a by-product of such subjects, but these are only parts of the broad range of thinking skills required in life. For example, the thinking required for action must include consideration of priorities, objectives, other people's views, and the like. Descriptive thinking is not enough.

It used to be felt that a person with a high IQ would necessarily be an effective thinker. This does not seem to be the case. Some people with high IQs turn out to be relatively ineffective thinkers and others with much more humble IQs are more effective. De Bono defined thinking as: **The operating skill with which intelligence acts upon experience.**

If IQ is the innate horse power of a car, then thinking skill is equivalent to the driving skill. Because of this realization many schools for the exceptionally gifted are now using the CoRT Thinking Lessons in a deliberate attempt to avoid the 'intelligence trap', which occurs when a high IQ is not accompanied by effective thinking skill.

To be effective, thinking does require an information base. But it is absurd to suppose that if we have enough information it will do our thinking for us. Only in very rare instances can we ever have such complete information that thinking is superfluous. In most cases we have to supplement inadequate information by use of our thinking skills. (de Bono, 1986, 1973)

The three basic principles underlying CoRT Thinking are as follows:

- Thinking is a skill that can be developed.
- Most practical thinking takes place in the perception stage.
- The tools method is used to teach thinking.

2. CoRT Thinking Lessons

There are 6 CoRT segments. Each is broken in 10 lessons. Each lesson teaches a new thinking tool. CoRT 1 Breadth Thinking Lessons are taught first. Next, you can teach the segment that best meets students' needs, or you can teach the whole program systematically. The lessons follow the same format for consistency. Practice topics are provided that help students learn how each tool works. Reproducible student work cards are included in the Teachers books. Each student is to receive a copy of each student work card. Once students learn each tool teachers are encouraged to assign relevant thinking topics of their own design.

CoRT 1: Breadth—helps students broaden perception—they should know more about each thinking situation after using the tools than they knew before they started.

CoRT 2: Organization—gives students a variety of tools to organize their thinking.

CoRT 3: Interaction—helps students observe the thinking involved in arguments, how a point of view is presented or defended, and the value and types of evidence.

CoRT 4: Creativity—students learn tools to generate fresh new solutions to challenges.

CoRT 5: Information and Feeling—tools to separate emotions from facts.

CoRT 6: Action—begins with the purpose and ends with specific action steps for the implementation of the outcome of thinking.

3. The Use of CoRT

a. Challenge "gifted" students and strengthens "remedial" students.
b. Equip students with practical tools to become excellent lifelong thinkers--creative, constructive, critical, and productive.
c. Helps students learn to think things through before acting.
d. Enable schools to infuse the teaching of thinking across all age and ability levels.
e. Help develop specific thinking skills to improve performance in all subject areas.
f. Help to improve yearly assessment scores.
g. Provide structured discussion tools for group work.
h. Strengthen MBA student performance.
i. Are perfect for school Administrators, Faculty, and Board members needing to resolve challenging school issues in new ways with tight budgets. (http://debonoforschools.com/asp/cort_home.asp)

4. CoRT Thinking in Schools

The CoRT Thinking material has been tested over a wide range of Student ages and ability. They are heavily used throughout the USA, in the UK, Ireland, Canada, Australia, New Zealand, Israel and Malta. Over 7 million students are using it already. There is a chance that also Slovenian students will get CoRT in primary schools in 2011/12.

Since the material provides only a trigger and a framework for thinking practice, it can be used over this wide range. The responses will of course be different even though the material remains the same.

4. 1. Tools: Use & Understanding

The understanding of a tool is not the same as the use of a tool. The whole educational training is directed toward the idea that understanding has to come first and then use will follow. Unfortunately this is not necessarily so.

4. 2. Teaching Method

The obvious purpose of the CoRT Thinking Lessons is to teach thinking as a direct skill. It is not much use instructing students to "think better", or to "think it out." This sort of instruction does not achieve much. Nor is it enough to have general discussion sessions in the hope that the students will abstract and then generalize useful thinking skills. Quite often the teaching problem has to be tackled in an oblique manner.

4. 3. Teaching Points

In the thinking lessons the teacher has to be firmly in control of the class. Control cannot arise from superior knowledge, because this is not a knowledge subject. Control cannot even arise from superior thinking ability, since the students may, from time to time, have better ideas than the teacher and it is no use pretending otherwise. Teachers are entitled to use whatever teaching methods they find most suitable for their classes. Nevertheless, it is worth setting out the basic CoRT approach to the teaching of thinking and contrasting it with some other approaches.

4. 4. Teacher Variation

The CoRT Thinking Lessons are designed to provide the basic outline of a thinking course, which treats thinking as a direct skill. These "bare bones" can be altered or fleshed out by the teacher as he or she wishes.

4. 5. Teaching Motivation

CoRT Thinking Lessons can only be as good as the teacher who teaches them. CoRT Thinking Lessons are easy to teach. CoRT Thinking Lessons are difficult to teach. It depends on the teacher's expectations and teaching style. Dr. de Bono compares this to riding a bicycle. A bicycle is difficult to ride until you learn how.

4. 6. Creativity and Lateral Thinking

Lateral thinking is specifically concerned with the generation of new perceptions and new ideas. Lateral thinking involves changing perceptions and flexibility. There is an overlap with creativity since both are concerned with producing something new, but lateral thinking is a more precise definition of the process of changing perceptions: changing the way we look at things. (http://schoolnet.gov.mt/thinkingskills/thinkingtools.htm)

5. Tools of CoRT 1

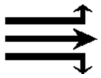
“Think of a person setting out to learn to be a carpenter. Each carpenter's tool is designed to carry out a specific function. The carpenter learns when and how to use each of the tools one by one. A lot of practice is required to become a skilled carpenter. Learning to become a skilled thinker is the same approach: to make the basic operations of thinking second nature so that they are carried out automatically, smoothly, and without fuss or effort.” (de Bono, Sept. 27-30, 2010)

With CoRT students learn a new vocabulary to help direct their thinking attention. Each thinking tool has a name--one word or short acronym that's easy to remember. For example--**CAF** is pronounced "caf" and stands for consider all factors, **PMI** is pronounced "p," "m," "i" and stands for Plus, Minus, Interesting.

Key Points:

- Think using one thinking tool at a time.
- There is no one right order to these thinking tools.
- Use the thinking tools that make sense for the thinking challenge.
- The tools emphasize thinking as a deliberate act rather than a reactive one.
- The tools are designed to be used objectively with an open mind--to broaden perception instead of defending a particular view.

"You should know more about and have a broader view of each thinking situation after applying any of these tools than you had before you started. You should be more complete in your thinking." (ibid.)


PMI

CAF

FIP

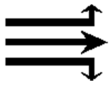
APC

OPV

AGO

C&S

5. 1. Tools in short



PMI – PLUS, MINUS, INTERESTING – THE TREATMENT OF IDEAS

The PMI is a crystallization of the open-minded attitude into a tool that can be used deliberately. This is a very basic lesson which is introduced right at the beginning so that the PMI process itself can be used as a tool in the course of subsequent lessons. Instead of just deciding whether or not you like an idea, this thinking operation helps you make an effort to find the good points (P=Plus), the bad points (M=Minus) and the interesting points (I=Interesting) about an idea. The interesting points are those, which are neither good nor bad but are worth noticing. The PMI is a way of treating ideas, suggestions and proposals. The natural reaction to an idea is to like or dislike it, to approve or disapprove. If you like an idea, it is very unnatural to look for the negative or minus aspects If you dislike an idea, it is very unnatural to look for the positive or plus aspects. It is equally unnatural to pick out the merely interesting aspects of an idea.

Using the PMI as a deliberate operation gives students a means of by-passing the natural emotional reaction to an idea. Their objectives change from emotional reactions to carrying out with skill a formal operation.

Once the PMI has been practiced as a tool it can be asked for in subsequent lessons: "Do a PMI on that idea."

The PMI is never intended to prevent decision or commitment but to ensure that this happens after both sides of the matter have been considered and not before.

In simple terms the PMI operation enlarges the view of a situation; without it, emotional reaction to an idea narrows the way we look at it.

CAF – CONSIDER ALL FACTORS – THE FACTORS INVOLVED

CAF is a crystallization of the process of trying to consider all the factors in a situation. This thinking operation is essentially related to action, decision, planning, judgment, and coming to a conclusion.

People naturally assume that they have considered all the factors, but usually their consideration is limited to the obvious ones. Turning CAF into a deliberate operation switches attention from the importance of the factors to looking around for all the factors. Clearly it is difficult to consider all the factors, so in the teaching situation consideration can be limited to the ten most important factors (or any other number), or the lesson can be taught in terms of:

- the factors affecting oneself;
- the factors affecting other people;
- the factors affecting society in general.

This gives the lesson its structure.

The emphasis of the lesson is on the factors that have been left out in a decision, plan, etc. In doing a CAF, students try to ensure that all important factors are listed in looking at each other's thinking, students try to spot which factors have been neglected. The CAF may be applied to one's own thinking as well as to the thinking of others: "What factors have I left out here?"

CAF differs from PMI in that PMI is a reaction to an idea whereas CAF is an exploration of a situation before coming up with an idea. The two do sometimes overlap because some of the factors that have to be considered obviously have a plus or minus aspect. The intention with a CAF is to be as complete as possible and to consider all factors rather than looking at them in terms of favorable or unfavorable factors.

C&S – CONSEQUENCES & SEQUEL – FOCUS ON THE CONSEQUENCES

C&S is a crystallization of the process of looking ahead to see the consequences of some action, plan, decision, rule, invention etc.
For some people, thinking ahead may always be part of doing a CAF, but it is worth emphasizing this process more directly since consequences do not exist until you make an effort to foresee them, whereas factors are always present at the moment. CAF is primarily concerned with factors that are operating at the moment and on which a decision is based, whereas C&S deals with what may happen after the decision has been made. There are immediate consequences as well as short-term (1-2 years), medium-term (2-5 years) and long-term consequences (over 5 years).
C&S is concerned with action of some sort, either the action that one intends to take oneself or the action that others are taking. The intention is to enlarge the view beyond the immediate effect of that action. An action may seem worthwhile, if the immediate effect is good; but if one makes a deliberate effort to look at longer term consequences, the action may not be worthwhile at all. Conversely, an action that has good long-term consequences may not seem very enticing at the moment.
If CAF is thinking about a situation at the moment, then C&S is thinking ahead. Obviously, consequences also can turn up as part of a PMI, but the important point about a deliberate C&S is that attention is focused directly on the future.

AGO – AIMS, GOALS, OBJECTIVES – FOCUS ON PURPOSE

In some situations, it is more appropriate to speak of aims, in other circumstances of goals, and in yet others of objectives. The main point of the lesson is to introduce and emphasize the idea of purpose. No attempt should be made to bring out the philosophical differences between these since this usually confuses students.
This notion of purpose broadens the perception of a situation. The AGO is a device to get students to focus directly and deliberately on the intention behind actions. What is the actor aiming for? What is he or she trying to achieve? What does the actor want to bring about? What are the actor's objectives? What are the actor's goals?
Being able to define objectives helps the student's thinking in such areas as decision, planning, and action of any kind which has a purpose.
It is enough for the teacher to say that in some cases the word aim is more appropriate and in other cases goals or objectives. If pressed, teachers can make the distinction as follows:

- aim is the general direction;
- goal is an ultimate destination;
- objective is a recognizable point of achievement along the way.

Teachers are strongly advised to concentrate on the general idea of "purpose" and not to make the distinction without a sense of purpose; all actions are either reactions to a situation or matters of habit or imitation. The intention of the lesson is to focus attention directly on purpose as distinct from reaction.

FIP – FIRST IMPORTANT PRIORITIES – FOCUS ON PRIORITIES

In most of the other lessons, the effort has been directed towards generating as many ideas as possible: as wide a PMI as possible; as many factors as possible for a CAF; as comprehensive a C&S as possible; all the different objectives, etc. FIP is a crystallization of the process of picking out the most important ideas, factors, objectives, consequences, etc. Obviously some of these ideas are more important than others. The purpose of FIP is to restore the balance in a deliberate manner.
If you try to pick out only the most important points from the start, you will be able to see only a small part of the picture. But if you start by trying to see as large a picture as possible, then your eventual assessment of importance will be much more valid.
Like the PMI, the FIP operation can be used in subsequent lessons or in other Subject areas whenever some assessment of importance is required. If students turn up with ideas, which are valid as ideas, but not of great importance, they can be asked to do a FIP on the situation.
FIP is a judgment situation and there are no absolute answers. What one person believes to be most important another person may place far down the list of priorities. The intention of the lesson is to focus attention directly onto this assessment of importance. Once you can do a FIP, then you are free to generate as many ideas as you like. If you cannot do a FIP, then you are only able to consider ideas that have an obvious importance at first sight - and you may well never get to consider any other ideas at all.

APC – ALTERNATIVES, POSSIBILITIES, CHOICES – FOCUS ON ALTERANTIVES

APC is a crystallization of the process of deliberately trying to find alternatives.
In taking action or making a decision there may seem to be few alternatives, but a deliberate effort to find alternatives can change the whole situation. The APC operation is an attempt to focus attention directly on exploring all the alternatives or choices or possibilities - beyond the obvious ones.
In looking at a situation it is unnatural to go beyond an explanation, which seems satisfactory; and yet there may be other possibilities, which may be even more likely, if only an effort is made to find them. The most likely alternative is not necessarily the most obvious.
This deliberate search for alternatives applies not only to action but also to explanations. When an obvious explanation presents itself, it is very unnatural to look beyond it to try and find other possible explanations. That is why it is useful to have a device, which can take one beyond natural inclinations
The APC is an antidote to emotional reaction. Whenever a student seems to be looking at something in a rigid way he/she can be asked to do an APC. If the student can do this, then the result is either a change in view or an adherence to the original view now, however, due to preference. APC can be applied to other subjects.
As in the CAF lesson the emphasis in teaching is on what has been left out. That is to say the groups try to find different alternatives and choices for the same situation to demonstrate that even when you are sure that there cannot be any other possibilities you may still find some, if you make a deliberate effort to look for them. As with the CAF lesson it is all too easy to suppose that one naturally looks at all possible alternatives anyway - but it is not true. To go beyond the obvious and the satisfactory possibilities one needs a deliberate device like the APC.

OPV – OTHER PEOPLE'S VIEW – THE OTHER PEOPLE INVOLVED

OPV is a crystallization of the process of looking at other people s viewpoints so that the process can be used consciously and deliberately
In the preceding nine lessons the enlargement of the situation - the broadening of perception - has always been from the point of view of the thinker. But many thinking situations involve other people as well. The point of view of these other people is also an essential part of the enlargement of the situation which is the basic theme of these first ten lessons. Thus another person may have different objectives, different priorities, different alternatives, etc. In fact, when another person does a PMI, CAF, C&S, AGO, FIP, or APC, he or she may come up with different ideas because he or she is in a different position.
Being able to look at, and understand, another person's point of view may be a very important part indeed of the thinking process, and so a deliberate effort may have to be made to see another point of view. This deliberate effort is the OPV. It may apply to another person's point of view or to other people's points of view in general.
Like many of the previous operations, OPV as a tool can be applied in different subject areas. It may be applied by itself, or it may be applied in conjunction with another operation. "Do an OPV-AGO for the other person."
Once students can escape from their own points of view, they can take other people into consideration. They may even come up with useful new ways of looking at a situation.
The OPV is an antidote to selfishness. Instead of a general vague feeling that other people's points of view matter there is a deliberate attempt to see another person's point of view.
In teaching, the emphasis must he on how the view of another person in the same situation may be entirely different. It is the possible difference between points of view that matters here. If it is assumed that any sensible person would have the same point of view in a given situation, then no effort at all will be made to see other points of view. (de Bono, 1986, 1973)

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