



Co-funded by the
Erasmus+ Programme
of the European Union



PARENT'S HANDBOOK

OUTPUT 06

Materials developed under the project "IMPETUS-
TOC"
funded by the program "ERASMUS+"





The content of this handbook is the result of an international project IMPETUS-TOC “Innovative method to promote education for critical thinking and key competencies using system Theory of Constraints”. This project has been funded with support from the European Commission under the Erasmus+ Programme (KA201, project number: 2019-1-PL01-KA201-065733).

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

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Released in 2022



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Introduction

In front of you, there is a parent`s handbook, which aim develop children's critical thinking skill in the family. A handbook should help you to find the best solutions how to raise the critical thinking by using TOC tools. The parent`s handbook can be used with children by talking, discussing and solving the conflicts. There are the introduction of TOC tools and practical examples how to implement them in dairy situations.

A parent`s handbook should be used by parents by themselves or as training material for parents, we hope some ideas will be used directly – tested suggested examples, and maybe you will have ideas on how to adapt them to your needs and situations.



1. The importance of children's critical thinking skills

Nowadays, the importance of critical thinking has been particularly emphasized. As stated by V. Indrašienė et al. (2018), critical thinking is considered one of the most important abilities that determine the well-being of an individual and society as a whole. In the age of information, it is very important not to accumulate knowledge, but to be able to think rationally, reasonably and independently (Mokinių mąstymo gebėjimų ugdymas, 2013). Critical thinking and problem-solving skills and the ability to learn must be developed to help society not only respond to the challenges arising in the 21st century, but at the same time help to take advantage of emerging new opportunities (Prakapas, Čepaitė, 2013).

What skills does critical thinking develop?

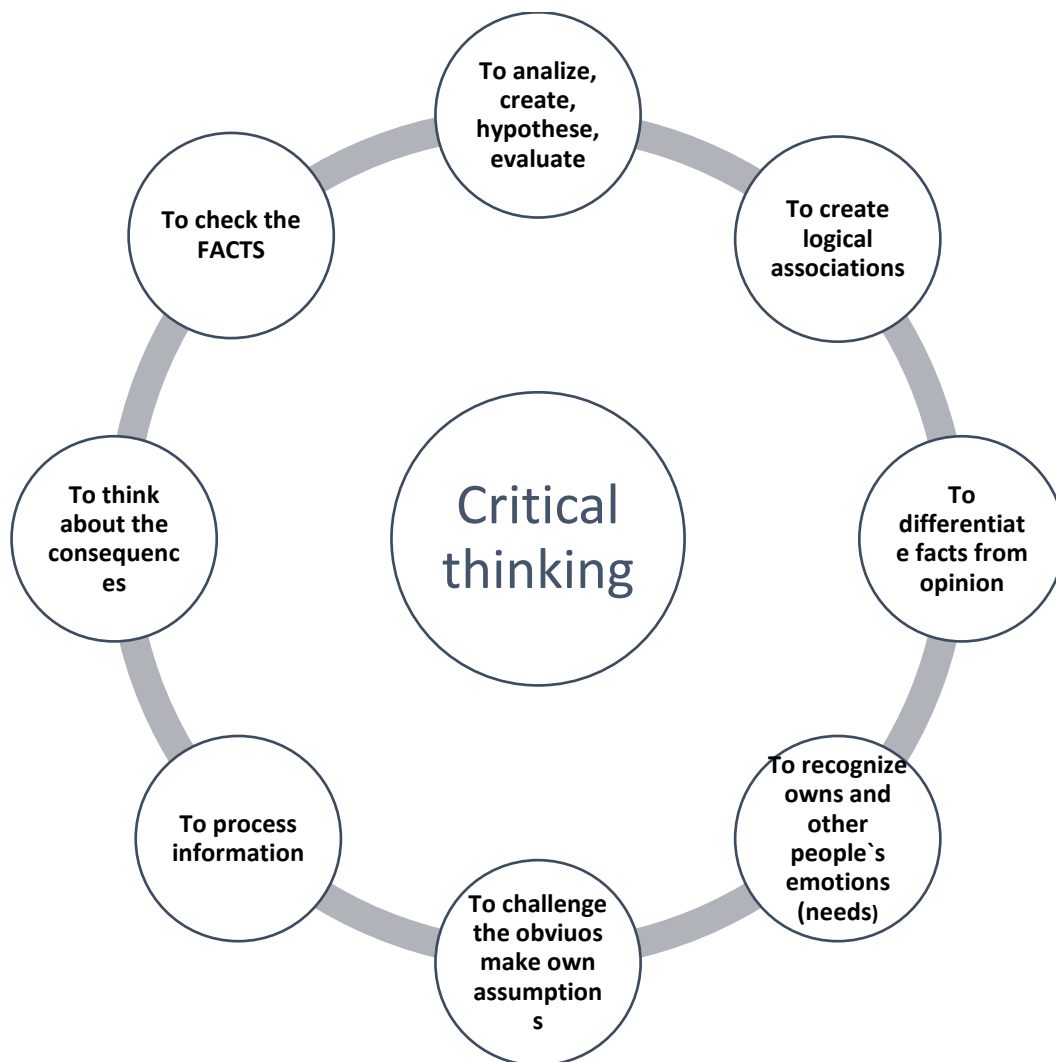


Figure 1. The skills of critical thinking

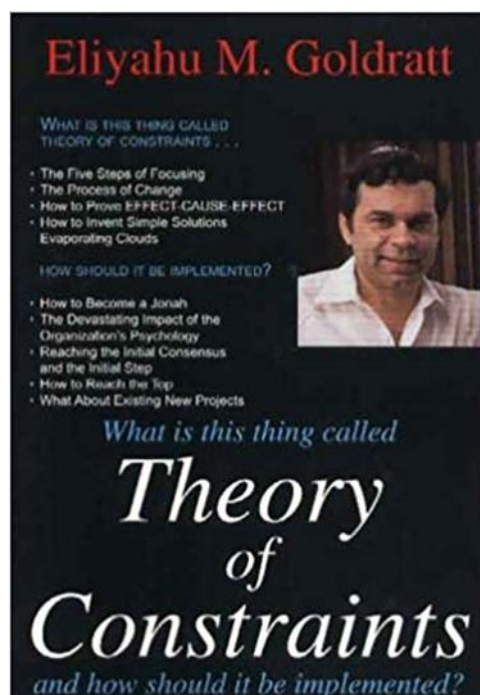


It is necessary to teach children to think critically: it is important for children to be able to identify, analyze, justify decisions and arguments, make decisions and solve the problems, apply existing knowledge in new situations and create new knowledge.

2. Description of the theory of constraints

The duty of an adult is to teach a child to think, say the ideas of Theory of Constraints (TOC), an effective thinking and activity management methodology all over the world.

The theory of constraints in the 20th century was created by the Israeli physicist dr. Eliyahu M. Goldratt, in search of effective methods for solving the internal contradictions - problems - of complex systems. This theory has become one of the most popular in the business world.



- Since 1995, the ideas of TOC theory have been implemented in education, when Eliyahu M. Goldratt founded TOCfE, a global non-profit organization.
- TOCfE programs have been implemented in more than 20 countries around the world.



- Millions of students and their parents use TOCfE methods with very positive and impressive results.
- TOCfE methods are used from Kindergarten to University!

Main ideas of TOCfE

The purpose of establishing TOCfE is to popularize logic-based thinking and communication tools, knowledge of the Theory of Constraints among educational representatives in order to leave a better world behind us, to help people find mutually satisfactory solutions in conflict situations. Children can be taught to think critically and creatively from a very young age. At the same time, children learn to say what they think, they are also taught to think logically and systematically, taking responsibility. The tools of the Theory of Constraints are such that they can be used by preschoolers as well as the top managers of organizations. Since its inception, more than 250,000 people in 22 countries have learned how to use Theory of Constraints. The Moral Code of Theory - The tools of the Theory of Constraints were developed to find solutions that satisfy both parties and ensure that neither side is harmed by certain actions. Theory of Constraints tools may not be used for other purposes. Most educators aim to develop responsibility and effectiveness in students of all ages now and in the future (Ean, 2015).

In the words of the creator of TOC, Dr. Eliyahu M. Goldratt (1947-2011): "Every improvement is a change, but not every change is improvement" (Suerken, 2014). If we want to create the improvements we envision, then we must effectively address three questions:

1. What to Change? (problem identification)
2. What to change to? (strategy)
3. How to Cause the Change? (solution)

TOCfE methods are very simple, effective methods for children's critical thinking and problem solving: logical branch, evaporating cloud, ambitious target.

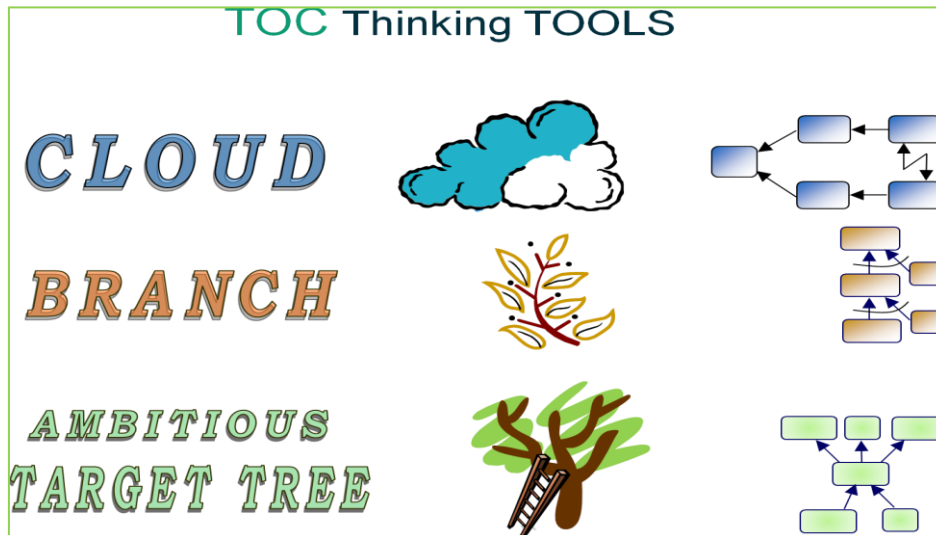


Figure 2. TOCfE tools

The basis of thinking processes is to discover the of cause and effect, the tools used for this are logical diagrams that help explain our intuition. Using a logical branch diagram develops students' logical thinking, helps to discover cause-effect relationships. The cloud method is intended for resolving conflicts and internal dilemmas, understanding desires and needs, testing assumptions and discovering a "mutually beneficial" solution. Ambitious target tool is a planning method that helps to set a goal, identify obstacles, plan time and responsibilities (Suerken, 2014). K.C Ean (2015) claims that TOCfE methods are tools for effective thinking and harmonious communication.

2.1. TOCfE tool – Logical branch

A logical branch is a logical diagram that helps explain our intuition. Students find it difficult to learn facts and ideas that are not related to each other, so using the cause and effect makes it easy for children to connect information logically.

The use of the logical branch is simple; the children have to make a logical branch or write the statements in the graphical structure of the logical branch (Figure 3).

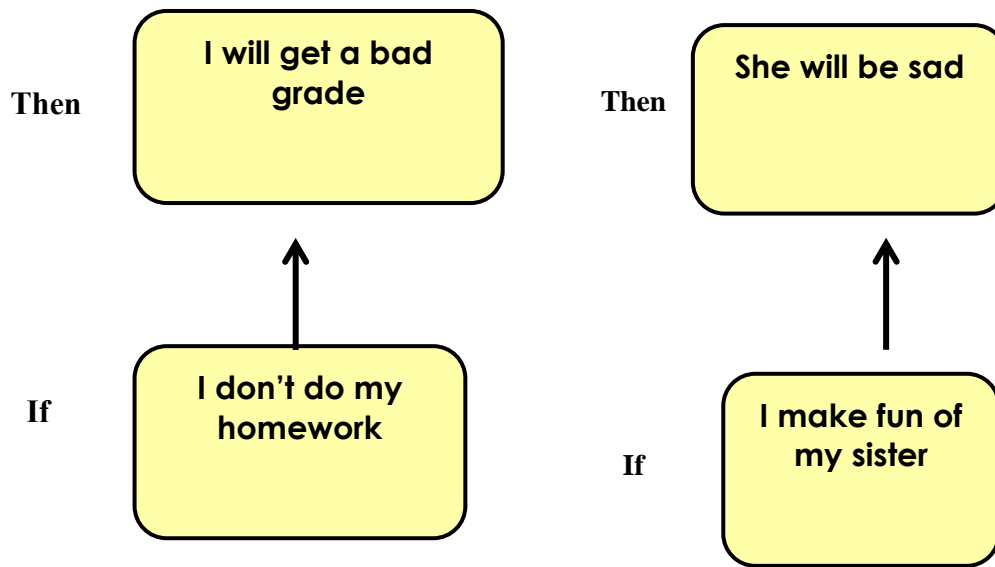
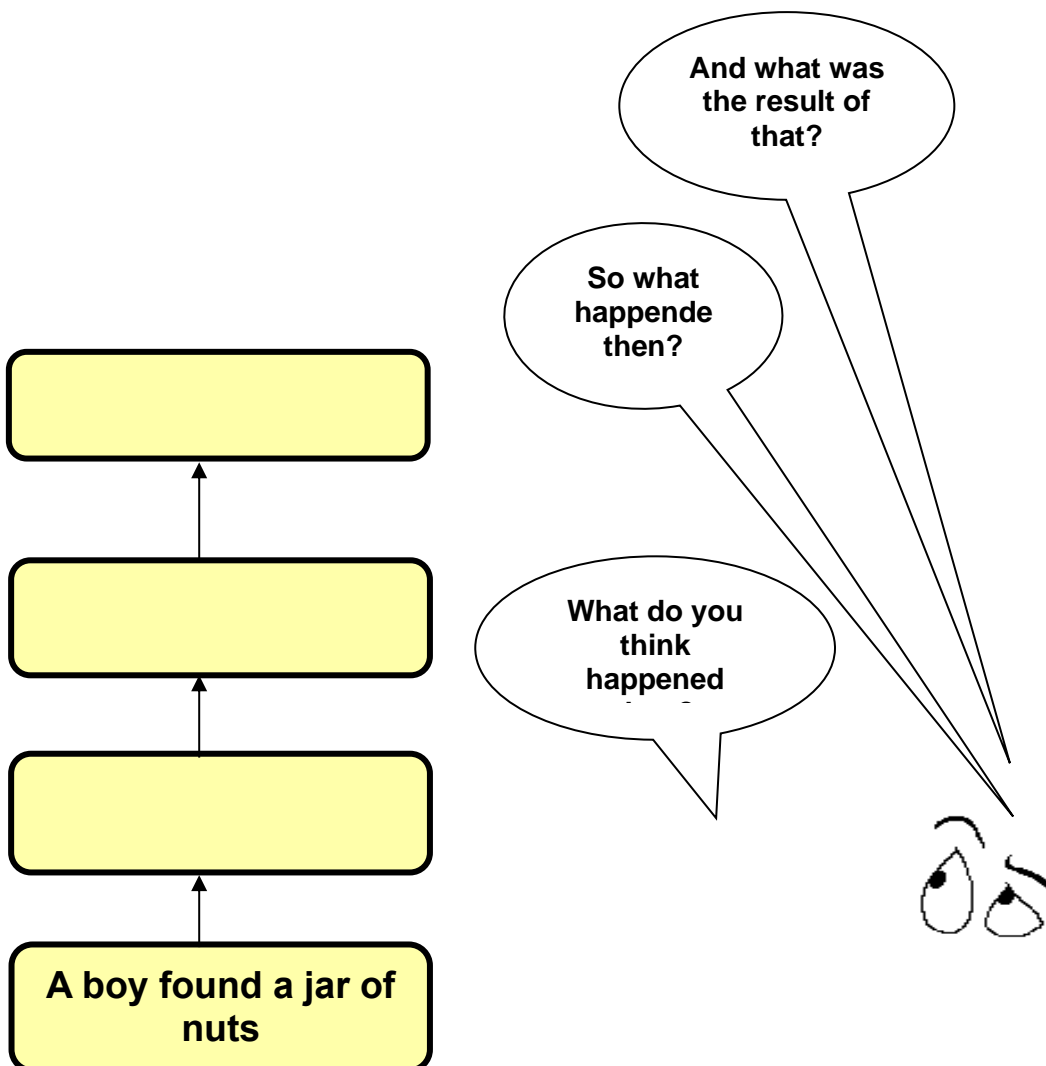


Figure 3. The example of Logical branch

The adult (parents) is a counselor, it is his duty to ask correct and clear questions, e.g. "What do you think happened then?", "So what happened then?", "What was the result of all this?" etc.



The logical branch is formed from the bottom (Fig. 4).

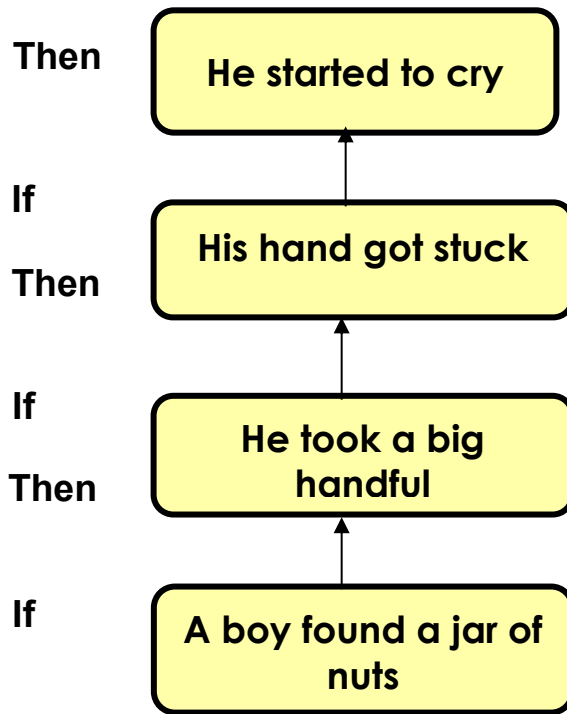


Figure4 . The example of using Logical branch (K. Suerken, 2014)

In order to understand the cause and effect relationship, it is necessary to read the statements aloud in the branch: "IF" (statement) - "THEN" (another statement), e.g. If "The boy found a jar full of nuts", then "He took a big handful" and so on.

If the statements are related to each other, the statements are listed from bottom to top, revealing cause-effect relationships. However, if additional information is required to describe the consequence, an additional box is added in the graphic structure (Figure 5).

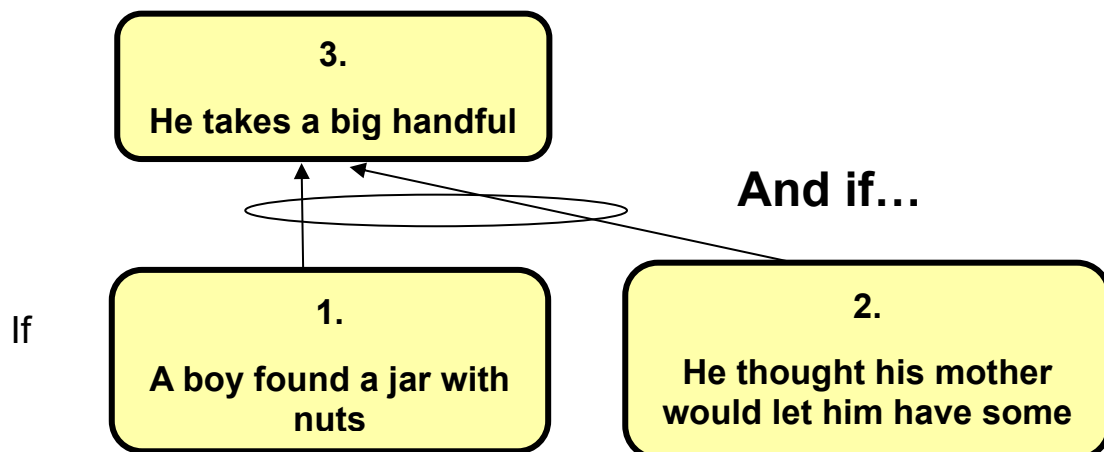


Figure 5. The example of using tool (K. Suerken, 2014)



Additional information is an assumption or conclusion that reveals why a cause causes an effect/effect, an explanation of why we can move from one step to another. Reading example: If "The boy found a jar full of nuts" and "He thought his mother would let him eat some nuts", then "He takes a full handful".

By using the logical branch method, different versions of the sequence of events can be used for students. For young children, pictures can be used in the text. This process allows students to logically retell the sequence of events according to each child's ability.

PRACTICAL EXERCISE:
(make Logical branch with your child)

1. If I eat a lot of junk food, then....
2. If I go to sleep late on Sunday, then...
3. If I don't do homework, then...
4. If I don't participate in the home duties, then...
5. If I don't practise sport....
6. If I pack school bag for my child....
7. If I tease my friend, then...
8. If I smoke, then....
9. If I don't help my mum, then....
10. If I will be angry with my child, then....
11. If I lie to my dad, then....
12. If I don't keep my promise, then...

2.2. TOCfE tool – Evaporating cloud

Conflict is an inevitable social phenomenon in which the different interests of two or more groups collide. For conflict resolution, it is suggested to use the "win-win" conflict resolution strategy. This is the most successful strategy, because both sides of the conflict

actively participate in the resolution of the conflict, defend their interests, take into account the wishes of the opponent and find a solution that satisfies both parties.

This strategy is particularly appropriate if the solution to the problem is important to both parties. Also, when we have long-term and close ties with the opponent. However, in order to successfully resolve the conflict through cooperation, both conflicting parties must be able to state the essence of their interests and also listen to the opposite opinion. This is a necessary condition that not always and not everyone succeeds in fulfilling.

The Evaporating Conflict Cloud is a graphical thinking tool for examining and resolving conflict situations, whether it's a personal dilemma, disagreement, argument, or decision and action that needs to be taken. It is used to clearly and precisely identify or define the issue of disagreement without blaming anyone.

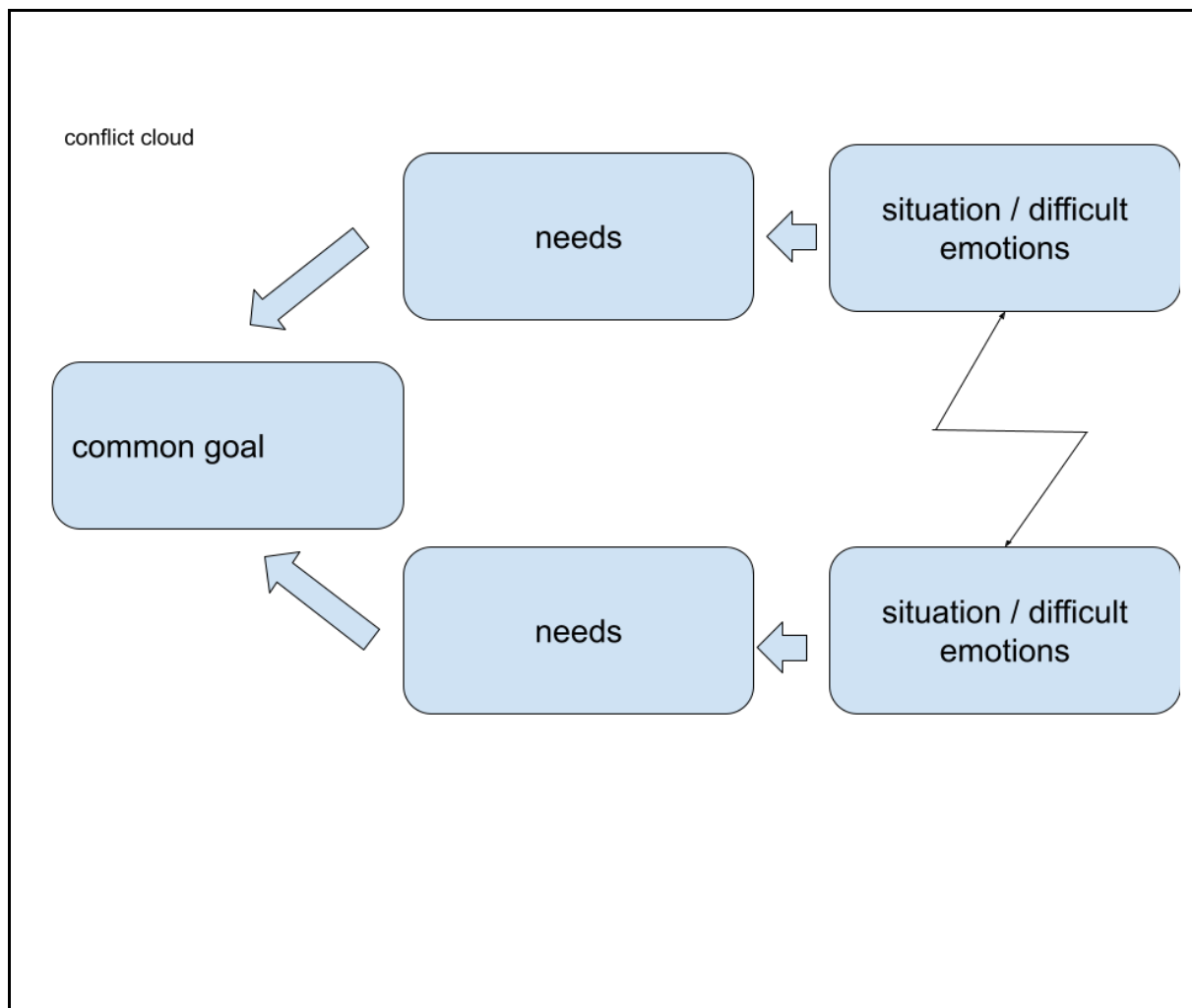


Figure 6. The example of Evaporating Cloud



Steps to make an evaporating cloud, we fill the cloud from right to left:

1) the conflict that you want to solve is named, for example, to go to the cinema or not to go to the cinema. It is very important to provide a clear description of the problem, because only the named problem can be solved.

2) We find out the needs. It is very important to distinguish between a want and a need, as these words are often used as synonyms.

3) We name the common goal. We read the cloud from left to right.

The cloud of evaporating conflict is a tool for thinking and mutual communication that enables you to find out the essence of the conflict, justify the direction of choosing to solve it and find specific solutions that lead to the best way to resolve the conflict - "Win Win - both sides win".

PRACTICAL EXERCISE:

**(make Evaporating Cloud with your
child)**

1. My mother does not allow me to go for a walk with my friends in the evening or insists that I come home by 9 o'clock. I want to be with my friends longer.
2. A boy wants to get a video game console for Christmas, but his parents want to buy a simple computer.
3. To stay with family or to go to the friends 'party.
4. To play with computer or to read the book.
5. To change the class or not to change.



2.3. TOCfE tool – Ambitious target

The Ambitious target is a planning method that helps set a goal, identify obstacles, and schedule time and responsibilities.

Ambitious target		
Obstacle	Intermediate objective	Actions/plan
1.		
2.		
3.		

Figure 7. The example of Ambitious target

Steps to setting an ambitious target:

- 1) When drawing up an ambitious target scheme, it is first necessary to envisage a clear and achievable goal.
- 2) Identify and make a list of obstacles preventing the achievement of the aim. For example, "I don't have time".
- 3) Set intermediate objective based on the barriers that have been identified. For example, if the obstacle is "I don't have time", the intermediate goal is "I have time".
- 4) The third section "actions" lists specific actions to achieve the intermediate objective. For example, the intermediate objective "I have time", the actions "I plan my time", "I spend less time at the computer".

The Ambitious target tool teaches each person to set their own goals and achieve them.

The Ambitious target tool is a planning method that helps you set a goal, identify obstacles, and schedule time and responsibilities.

PRACTICAL EXERCISE:
(make Ambitious target with your child)





1. To prepare the birthday party for the grandmother.
2. To improve the geography mark.
3. To save pocket money for the present to my sister.
4. To lose weight.
5. To eat healthier.
6. To become more confident.
7. To go to Paris.
8. To choose the school.
9. To become the doctor.
10. To read the book.



Conclusings

- Indendepdent, critical thinking
- Transfer of responsibility on children's shoulders
- Internal motivation
- Solving their own problems, being seflaware
- Understanding difficult situations



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