



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



# TRAINING MATERIALS FOR TEACHERS

## OUTPUT 02

Materials developed under the project "IMPETUS-TOC"

funded by the program "ERASMUS+"



The content of this guide 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.

**Authors:**

Poland: Dorota Maniszewska, Joanna Mańkowska, Sylwia Nitkowska, Maria Marcińczuk,  
Marta Piernikowska-Hewelt

Italy: Antonella Cuntreri, Milena Manganello, Marinella Pitino

Lithuania: Adele Baksiene, Daiva Ziogiene

**Organizations involved in the preparation of the text of the guide:**

Poland: Niepubliczna Szkoła Podstawowa Lokomotywa

Italy: ISTITUTO COMPRENSIVO BERLINGUER

Lithuania: Anyksciu svietimo pagalbos tarnyba

**Copyright:** This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Released in 2022

# CONTENT

Introduction	3
1. TOC philosophy and school mediation	4
1.1. TOC philosophy	4
1.2. TOC for Education	6
1.3. School mediations	6
1.4. Working with a conflict - conflict cloud	7
2. TOC tools in the teacher's personal development - practical application	7
2.1. Evaluation as a source of internal and external conflict	8
2.1.1. Teacher's internal conflict	10
2.1.1.1. Teacher's internal conflict - cloud 1	10
2.1.1.2. Teacher's internal conflict - cloud 2	12
2.1.1.3. Teacher's internal conflict - a cloud 3	14
2.1.2. External conflict between parent and teacher	14
2.1.3. Conflict cloud - own work	15
2.1.4. Logical branch - formative assessment - own work	16
2.1.5. The ambitious target tree - formative assessment - own work	16
3. The use of TOC tools in lessons	19
3.1. Sample lesson plans - SCENARIO 1. Communication.	19
3.2. Sample lesson plans - SCENARIO 2. Mountains	23
4. Building a school environment supporting mediation - practical tips	27
5. Using TOC in school mediation	28
5.1. A scenario for school mediation with the use of TOC tools	28
5.2. Suggestions for sample exercises for school mediation	28
6. Summary	33

## Introduction

These materials are directed to teachers, educators and education professionals who have received training in TOC tools for Education. This guide can be used for a teacher's own self-development and as a compendium for trainers preparing training courses. Its purpose is to support educators trained in TOC tools in implementing and using the tools in their daily work.

Since our experience suggests that educators need some form of support after training, the guide is intended to help trainees facilitate the process of implementing change in the area of introducing critical thinking at school. It is also the intention of the authors to promote the building of a culture of learning at school and the creation of an environment conducive to school mediation. This is because we note that for lasting change to occur in the educational environment, two steps are necessary:

1. training in new tools, methods and techniques, equipping and supporting teachers to develop their workshop for key competencies,
2. a series of additional activities, supporting already trained teachers and educators.

The main purpose of the following material is to support trainees in the period immediately after the training, so they are able to use newly acquired knowledge and skills in everyday life. The classes conducted so far should be rebuilt so as to create space for TOC tools in them. In this process, we propose the following activities: to supplement and expand the knowledge that teachers have just acquired during the training sessions, to expand their own workshop by analyzing or using the presented scenarios, to create new lesson plans using TOC tools.

The next section contains ready examples of how to use TOC tools in the teacher's personal development, during tutoring meetings with children and adolescents, to work on behavior change. The examples also include a description of the possible use of the tools during mediation meetings at school.

Then the reader can find lesson plans for using TOC tools in elementary school. These are suggestions for ready-made lessons using TOC tools for junior SP classes. The scenarios are complete proposals for specific lessons or a fragment of activities, they include examples of cloud branches and ambitious target trees, some of them are oriented to the development of 4k skills and include ready-made exercises and ideas for developing creativity.

In summary, this guide includes:

- a brief introduction to the fundamentals of TOC, with a focus on the application of TOC at school,
- introduction of TOC tools for effective school mediation,
- ideas for application of TOC to personal work,
- examples of implemented lessons/activities,
- ideas, inspiration, examples and open-ended problems for independent work,
- ideas, inspirations, scenarios for conducting lessons and educational/educational activities.

## **1. TOC philosophy and school mediation**

TOC tools have their great potential for shaping thought patterns and developing critical thinking. They also have just as much potential for working on communication and for psychoeducation. Above all, the conflict cloud, as the name of the tool suggests, can be used to illustrate opposing demands, and thus is an excellent tool for personal work and for working in a pair or group on an existing conflict.

### **1.1. TOC philosophy**

TOC for Education is a program that supports children and youth in developing critical thinking, personal development and conflict resolution. The program is based on the management philosophy of the TOC (Theory of Constraints) method, created by Dr. Eliyahu Goldratt. TOC has gained immense popularity in business, the method is used by many internationals. MBA students around the world are familiar with it. E. Goldratt first described

his idea in 1984 in the entry of his book: *The Goal*. The book has had many reprints, and the author himself, Dr. E. Goldratt has written many other books developing this management concept. TOC, or Theory of Constraints, is a set of concepts that help find practical and effective solutions to problems that arise in business and prevent or hinder the growth of an organization. The Theory of Constraints is a set of thinking tools to look at the processes that must take place to overcome identified constraints as they inhibit a person, group, or organization from achieving a goal. When working with TOC tools, a lot of attention is paid to the weakest link in the chain, which reduces quality, negatively affecting the end result of the overall system. Finding the weakest link gives us the opportunity to diagnose and locate where we need to direct appropriate support or reorganize the system in order to achieve a better development of it. E. Goldratt identified four guidelines for satisfactory development. The first of the pillars for the TOC philosophy, is innate simplicity, contrary to the common belief of how complicated the world is. The desire for simplicity, is expressed in a clear diagrammatic scheme. Goldratt encourages using TOC tools to discover relationships, harmony and simplicity in the world. The second guideline is the belief that people are good. This assumption keeps us from being judgmental and allows us to support the idea that good intentions are at the root of human action. Another assumption is that any conflict can be resolved. According to the TOC philosophy, a win-win solution should be sought precisely in support of this belief. The final element, "think before you say: know." Goldratt argues that giving an instant answer, closes us off from thinking and analyzing the problem. Convincing ourselves of our superiority, knowledge and ability to choose the best possible solution causes us not to give ourselves a chance to listen to the other side's rationale or to search deeper. Sometimes it's worth following our intuition, but it's also worth stopping and checking whether our first reaction is right, whether we have taken enough data into account. The assumption that we can always learn something new, that we can do more and better gives us a chance to activate critical thinking. To look for tight logical connections in our beliefs, to manage by exceeding our limitations and to develop cause-and-effect thinking. At the same time, Goldratt encouraged using TOC tools to verify facts, existing knowledge. This is an excellent drive for continuous learning. To rush for knowledge in our fast-paced reality.

## **1.2. TOC for Education**

In 1995, Goldratt founded TOC for Education, a nonprofit organization that has been promoting TOC thinking tools in education since its beginning. The goal of TOC for Education is to support students in acquiring knowledge in a way that develops: the ability to make independent decisions, manifest responsibility, and the habit of cause-and-effect thinking. The universality of TOC for Education tools allows them to be used in educational work with any age group and with children experiencing various difficulties or disabilities. TOC tools can be used in teaching classes, introducing new material, and consolidating the knowledge that students already have, but also in educational, tutoring, and mediation work as tools to support personal development.

## **1.3. School mediations**

During the project at our school, two experienced mediators introduced a peer mediation club. At regular meetings once a week, interested students in grades 6 and 7 learned the mediation program step by step. They learned to communicate by noticing needs and understanding that behind every behavior that triggers conflict there is a need that needs to be taken care of or at least recognized. They learned to distinguish between needs and strategies and learned about behavioral styles in conflict. With this basic knowledge, they learned about the role of the school mediator first by practicing in the classroom, and then with increasing courage they tried their hand as mediators. At first under the guidance of a teacher, and then completely independently, in pairs, they supported their younger colleagues in resolving disputes and finding solutions that were good for everyone. Mediation and TOC are united by the principle of seeking win-win solutions and rejecting compromise as a harmful half-measure. The conflict cloud is a basic, supportive TOC tool used in mediation. It shows that the two disputed sides have deep needs, that they are united by a common good goal, and that the one thing that causes conflict are strategies, also called demands, which are only a way to satisfy the needs, or what is important to us, and there are many possible paths to choose from.

## **1.4. Working with a conflict - conflict cloud**

In working on conflict, we propose two types of tasks. The first concerns our inner work, the dilemmas we deal with ourselves. The second is about conflicts that occur between two sides. All examples concerning conflicts - those internal and external - are based on the experience of the authors.

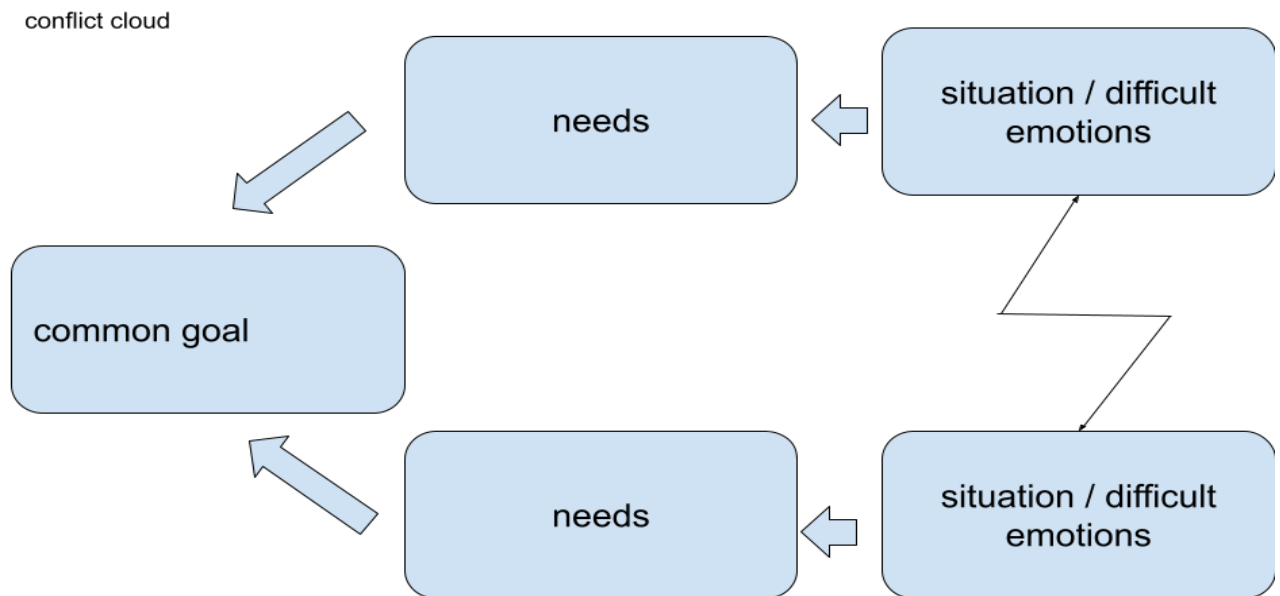
To work with the conflict cloud, it is necessary to understand the assumptions of TOC. It is worth revisiting the four pillars of TOC as assumptions fundamental to the use of tools, so that the learning/teaching process does not rely on tools alone. The danger then is to use them too shallowly or to manipulate them. For full use of TOC tools, basic psychological knowledge of emotions and needs is also needed. To distinguish between emotions and strategies, to recognize one's needs, and to know the styles of responding in situations of uncertainty, conflict, difficulties. Basic psycho-education of children occurs when students learn how to use the cloud in lessons and as a tool to serve them in peer mediation. Here we have a twofold experience. On the one hand, the simplicity of the cloud, its schematic, graphic form, is natural for children to adopt and easy to use. On the other hand, children, after experiencing working with the cloud several times, remember the scheme so quickly that they become educators of their environment. As if naturally, they find the needs behind the demands and know that the focus should be on a solution that is good for both sides of the conflict.

## **2. TOC tools in the teacher's personal development - practical application**

After reviewing the examples offered in the guide, in which we try to show our thinking process, there is room for own work. We are encouraged to think independently about the conflicts and dilemmas we are experiencing and find the needs behind them. For it is needs that give direction to our actions. The desire to satisfy them is expressed in demands, which are usually one of many strategies or opportunities to satisfy revealed needs. Time spent recognizing one's needs expressed in demands, seeing the other person's needs, and attempting win/win solutions without compromise, which always carries some loss, and finally seeing a common goal will result in greater freedom in working with students and mentee.



In order to work effectively on our own with TOC tools, a conflict cloud diagram and a constantly accompanying list of needs are essential.



drawing.1. TOC tool - Conflict Cloud.

While working with a conflict cloud, it is essential to work with a list of needs. Any list of needs in your language should be suitable. You can find lists of needs divided into spheres: like needs connected with your own development, with your body, autonomy, celebrations, mourning, Spiritual community, fun and joy, physical needs, .... and many more. Probably most suitable would be any list created to practice NVC by Marschall Rosenberg.

## 2.1. Evaluation as a source of internal and external conflict

Assessment can be a source of many internal dilemmas for the teacher and external conflicts on many levels: student-teacher, teacher-parent, student-parent, and teacher-supervisor. It can be taken as an indicator that the student has not learned enough or not quickly enough

of the material. At the same time, it can clearly show the student what is required of him and guide his work. For a parent, a mark can signal that his child needs a diagnosis in some direction. The mark can tell us that the child is struggling with some difficulty that he will not overcome without the help of an adult. On the other hand, it can also signal that the child manifests a predisposition in some direction and has a talent worth developing and building on. For the teacher, it can be a measure of the performance of his work. The following clouds can help us analyze the path taken by a teacher who chooses the assessment method he wants to work. Showing the weaknesses and strengths of each system and bringing you closer to making the decision that is best for you, your teaching philosophy, and the most appropriate for your school and the way you work with your students.

Grading is a critical issue in school. It raises many emotions on many levels. It raises the question of who needs it. Who it works for, and whether it always contributes to the development of both the student and the teacher. There is no doubt that it can serve the function of maintaining power over the teacher (who is evaluated by the principal or other superior) and over the student, who can be motivated or demotivated or even humiliated by the evaluation. So we can see that evaluation can serve different functions. It can be an element of power or play a diagnostic role. Ideally, it becomes a compass and sets the direction and pace of the teacher and student. Many people, both teachers, and parents, have the conviction that the numerical or point system has been operating in education for decades. However, we have become accustomed to it. It is sometimes seen as a natural part of the school environment and is not fulfilling its function today. It raises objections from the point of view of the psychology of child and adolescent development. It can contribute to neurosis and many disorders.

Assessment of a student's educational achievements has its justification. In the light of the Regulation of the Minister of National Education on the principles of grading, classifying, and promoting students and students conducting examinations and tests in public schools, dated April 30, 2007, it consists of the teacher's recognition of the level and progress of a student's mastery of knowledge and skills concerning educational requirements arising from the core curriculum and curricula implemented at school.

Assessment designed to serve to learn understood as development, intended to serve the student, teacher, and parent, is the subject of much educational discussion both at

pedagogical conferences and behind the scenes in schools. Below we invite you to follow an analysis of possible teacher dilemmas regarding numerical vs. formative assessment.

Proper grading can be an indicator and fulfill many essential needs for those involved in teachings, such as the need for fairness, clarity, and development. At the same time, it can evoke many emotions that indicate that needs are not being met. For example, feelings of unease can signal to us that our need for justice or comfort is unmet.

### **2.1.1. Teacher's internal conflict**

The following are teachers' internal conflicts revealed using the TOC conflict cloud. All examples are based on the same conflict:

#### **put numerical grades - formative assessment**

Then, to the same demands, or in other words, grading strategies, the needs behind them are assigned.

##### **2.1.1.1. Teacher's internal conflict - cloud 1**

Internal conflict: Evaluate numerically - evaluate formatively

In the first cloud, we have a demand: grade numerically → supported by the following needs: to teach fairly, to do one's duty well, clarity, transparency, comfort and convenience (assuming that it is easier and faster to give a numerical grade than to create a description);

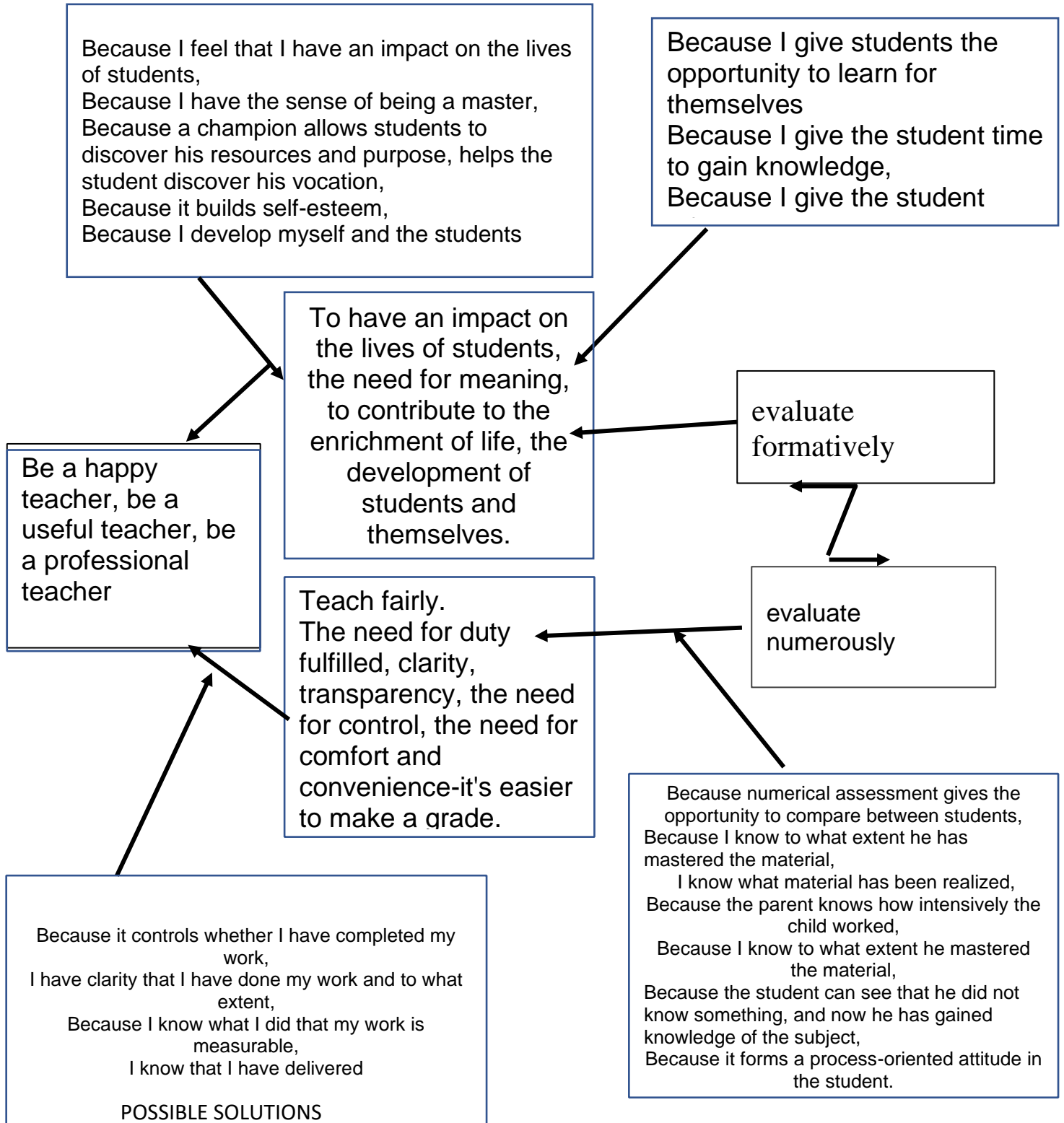
On the other side - in conflict we have a demand: formative assessment → supported by needs: to have an impact on the lives of students, the need for meaning, to contribute to the enrichment of life, development of students and themselves.

Both conflicted sides are united by a common goal:

To be a happy teacher, to be a useful teacher, and a professional teacher.



In additional boxes we have justifications for the requests. How the demands meet the needs and how the listed needs meet the goal. Then we make a list of possible solutions to our dilemma.





- formative assessment monitors what a student has achieved at different stages of learning,
- the teacher has clear criteria for what the student should be able to do, what competencies and knowledge to acquire, but also clearly communicates this to the students,
- the student knows what he has learned, knows what he specifically knows,
- the teacher knows what material he has completed,
- the student knows that he has made progress to the best of his ability, he knows his strengths, but also the limitations of the subject, he can accept them in order to develop his talents.

### 2.1.1.2. Teacher's internal conflict - cloud 2

Internal conflict: Evaluate numerically - evaluate formatively.

It seems to be the same internal conflict, but this time there are different needs behind the demands. We consider the conflict in terms of the need for comfort and the need for meaning in the case of the demand to evaluate numerically. On the other hand, behind the demand to evaluate formatively, the need for the work being done, in which we see meaning, becomes most apparent.

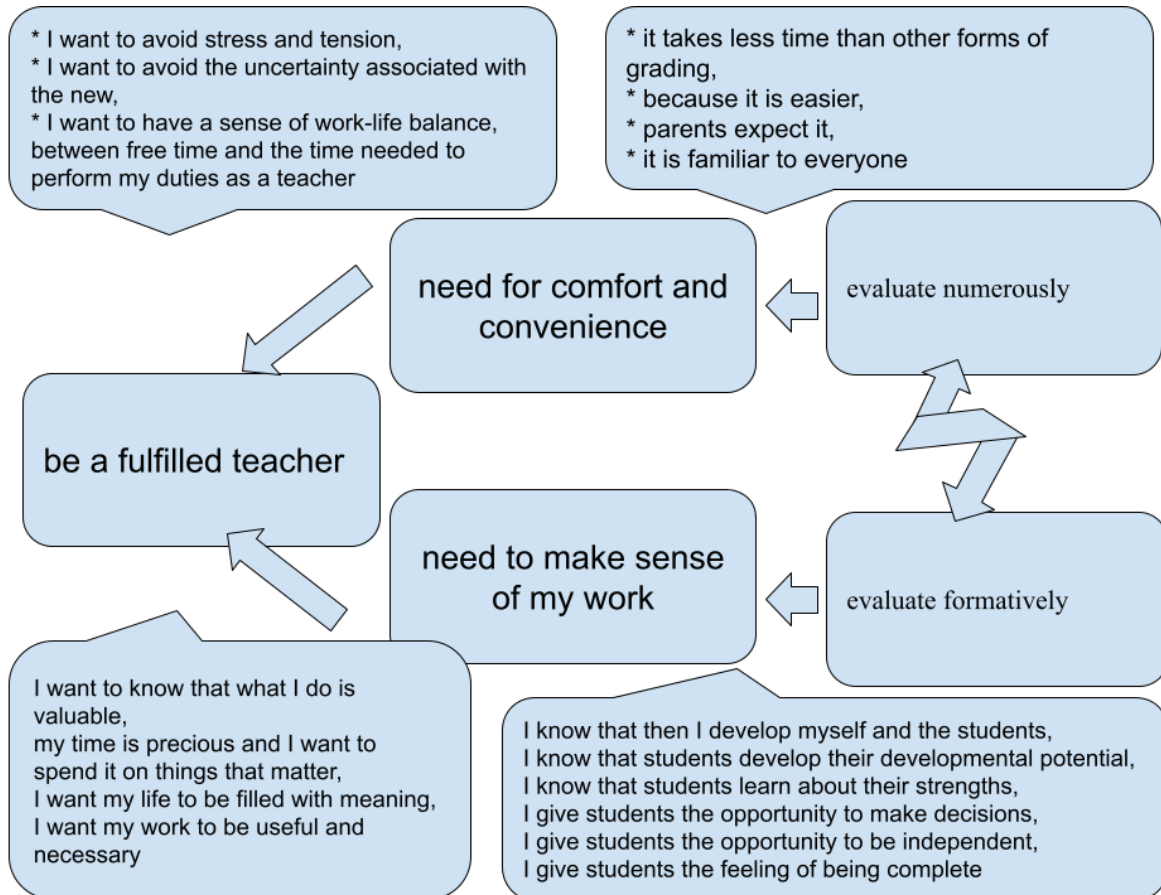
It seems to be the same internal conflict, but this time there are different needs behind the demands. We consider the conflict in terms of the need for comfort and the need for meaning in the case of the demand to evaluate numerically. On the other hand, behind the demand to evaluate formatively, the need for the work being done, in which we see meaning, becomes most apparent.

We act as above, following the steps. We draw out the conflict cloud. The storm arrow at the height of the demands reminds us that we have to oppose, mutually exclusive demands (or at least this is the sense in which we consider them). We then look for the needs that are revealed behind such demands and the common goal that unites the two conflicting realities. The next step is to write out the rationale, or in other words justifications, for why, how with a given demand I can satisfy the needs that have been discovered, and how satisfying my



needs will affect the achievement of the stated goal. Finally, we write out the possible solutions we notice after the work is done.

The following schemata presents an example of a dissected conflict cloud.



#### POSSIBLE SOLUTIONS:

- I look for and apply ready-made solutions - assessment methods used in the history of pedagogy,
- I replace frequent assessment with feedback during work, stay with students, give feedback,
- I listen to parents who would like to see children receive formative assessment. I cooperate with parents and teachers. I look for allies, I give up numerical grading.
- I look for support in the form of colleagues who would like to monitor students' progress in a different, formative way.



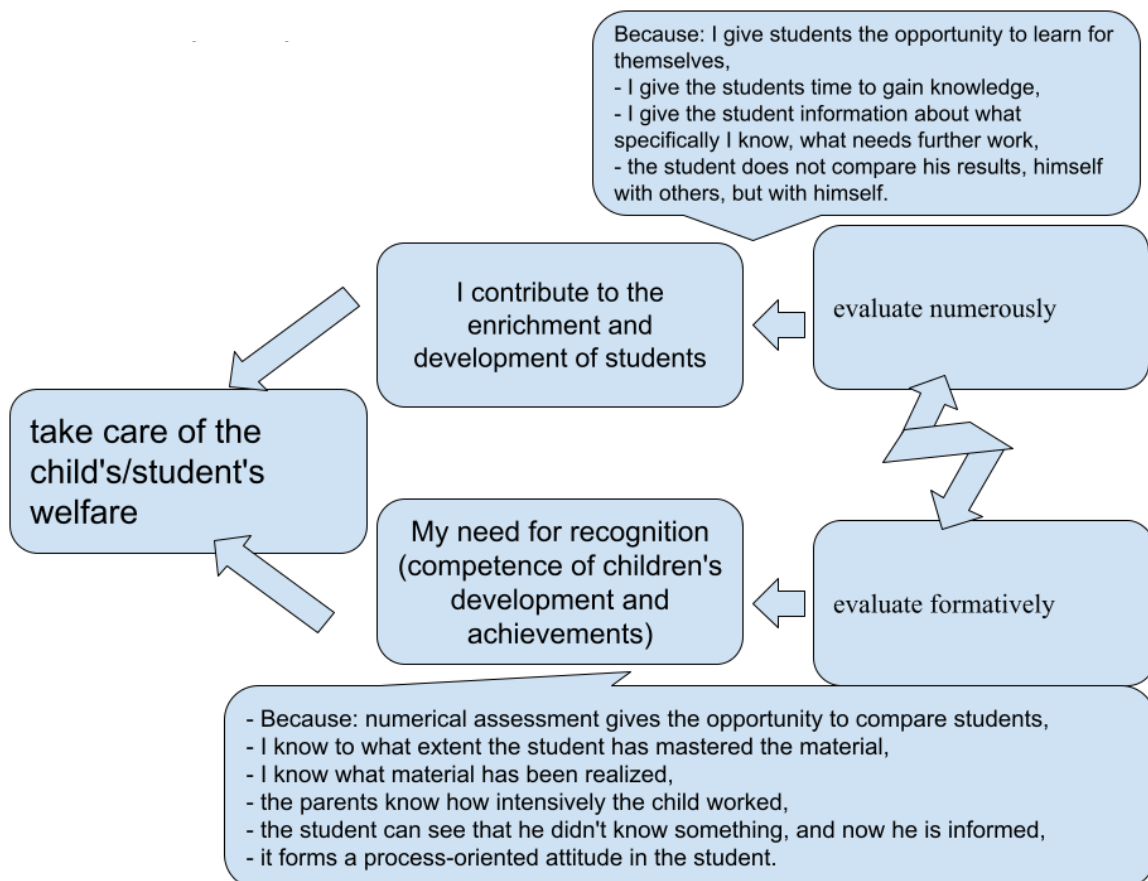
### 2.1.1.3. Teacher's internal conflict - a cloud 3

Conflict: evaluate numerically - do not evaluate numerical

POSSIBLE SOLUTIONS:

- I conduct monitoring discussions,
- I use the experience of others and ready-made solutions,
- I work with teachers who assess students differently,
- I use tools that allow me to monitor the process.

### 2.1.2. External conflict between parent and teacher

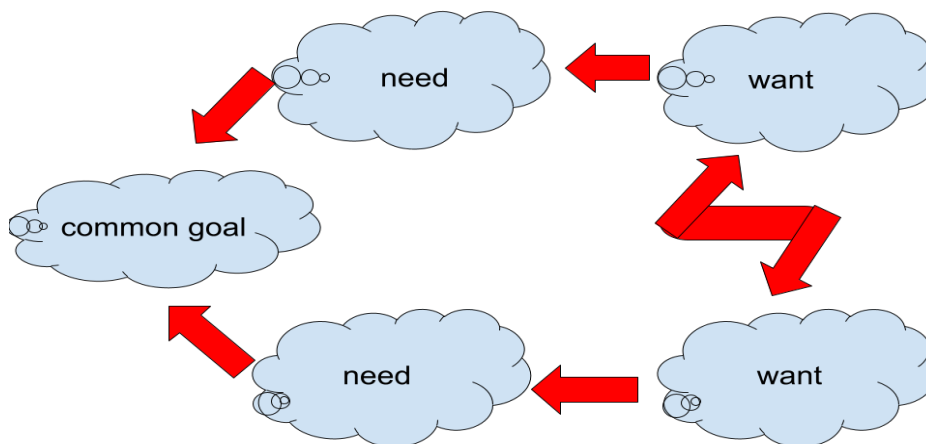
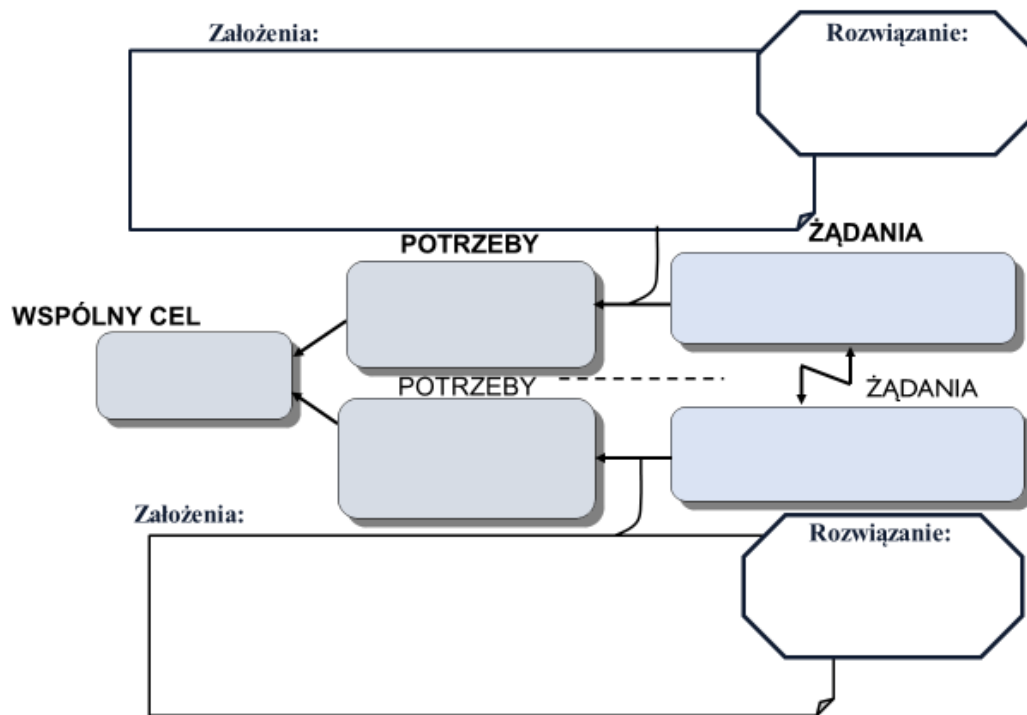




### 2.1.3. Conflict cloud - own work

Are you also experiencing a dilemma related to grading. Or maybe you are experiencing an external conflict with a student, parent, principal related to the form of grading you use.

**TASK 1.** Complete the cloud. Think about the assumptions accompanying the needs and demands. Propose solutions.



DRAWING: Simplified conflict cloud diagram



#### 2.1.4. Logical branch - formative assessment - own work

Let's now analyze formative assessment using the TOC tool, the logical branch.

Formative assessment

- Strengthening the student's proficiency and developing responsibility for their own education,
- strengthens self-esteem,
- promotes freedom,
- gives greater opportunity for choice;

**TASK 1:** Logical branch. Using the above and/or your own convictions, arrange a logical branch to show your personal way of thinking and arguing. Remember that the branch can be very simple, along the lines of cause→effect → cause→effect → cause→effect.

It can and often does also happen that one cause carries two or more possible effects, in which case the branch forks. Sometimes, too, the effect of a cause cannot exist by itself, there must be an additional condition:

if something and something →THEN something

#### 2.1.5. The ambitious target tree - formative assessment - own work

The ambitious target tree can illustrate the path taken by a teacher who wants to abandon the current way of assessing students numerically in favor of formative assessment. The first step in applying the TOC technique - the ambitious target tree - is to define and precisely name the goal one wants to achieve.

**STEP 1.** PRECISELY NAME THE GOAL YOU WANT TO ACHIEVE

Sample goals to develop with the ambitious target tree tool:

- I can write a formative assessment for a student

- I implement formative assessments in my subject / in the classroom / at school

## STEP 2. WRITING OUT ALL POSSIBLE OBSTACLES

The next stage of the work is to write out all possible obstacles that prevent us from achieving the set goal for the moment. E.g. the teacher faces lack of knowledge of the method of formative assessment, fears the reaction of parents, etc.,

So he writes out specific obstacles for himself:

1. I am not familiar with the formative teaching method.
2. I can't create a NaCoBeZu form.
3. I can't set learning objectives for children.
4. I can't name goals in student language.

## STEP 3. TURNING OBSTACLES INTO INTERMEDIATE GOALS

All of these obstacles are then converted by the teacher into intermediate goals that he or she would like to achieve in order to be successful.

The following table shows the stage of converting obstacles into intermediate goals:

OBSTACLE	IO - INTERMEDIATE OBJECTIVE
1. I am not familiar with the method of formative assessment.	I will learn the method of formative assessment.
2. I am unable to create a NaCoBeZu form.	I will learn to create NaCoBeZu forms for students.
3. I can't set learning goals for children.	I will set learning goals for children.
4. I can't name targets in the language of the student.	I will write them in language that is understandable and clear to my students.

## STEP 4. TRANSLATING INTERMEDIATE GOALS INTO CONCRETE ACTIONS

In order to achieve the set goals, it is necessary to translate them into concrete actions, such as:

IO	ACTIONS
I will learn the method of formative assessment.	I'm going to take a Formative Teaching course.
I will learn to create NaCoBeZu forms for students.	I will ask a friend who works with formative assessment to show me how she creates formulas and will try to make 3 myself for my lessons in the coming month.
I will set learning goals for children.	I will write and post on the classroom board the objectives of the lessons I teach.
I will write them in language that is understandable and clear to my students.	I will read my objectives to the students and check that the students understand them. I will correct any unclear places.

#### STEP 5. ARRANGING SPECIFIC ACTIONS IN THE RIGHT ORDER

#### STEP 6. TAKE ACTION

**TASK 1.** Choose an ambitious target related with teaching. Write it out for yourself, make sure it meets the SMART criteria, follow the instructions STEP by STEP.

	AMBICINGAS TIKSLAS	
OBSTACLES	IO	ACTIONS
1.	1.	1.
2.	2.	2.
3.	3.	3.

DRAWING. AMBITIOUS TARGET TREE CHART

### 3. The use of TOC tools in lessons

Below are sample lesson ideas with instructions for implementing TOC tools when working with students in the school classroom. At the beginning there are two scenarios from the innovation carried out at the Non-public School Lokomotywa in Sopot. The innovation combines elements of critical thinking and TOC tools with techniques that support creative thinking and the development of creativity in the broadest sense. The activities are based on the core curriculum designed for grades 1 - 3.

#### 3.1. Sample lesson plans - SCENARIO 1. Communication.

**CLASS:** 3 - PRIMARY SCHOOL

**TEMAT:** COMMUNICATION

**PROBLEM:** What is communication. How can we communicate? What makes it easier for us to communicate? What makes it difficult for us to communicate?

**AIM:** Raising awareness of the communication process. What helps us? What hinders us from communicating. Addressing the issue of non-verbal communication. Building awareness of the fact that words have power, they can empower others and they can take power away. Sensitizing children to the richness of emotions they experience in various life situations. What do you feel in such a situation? How do you experience it? Descending to the needs that underlie our actions and decisions. What needs do both sides of the conflict have? What needs does the one who ridicules and the one who is ridiculed have? Seeking solutions, taking into account the needs of both sides of different conflicts, setting common goals.

**LESSON:**

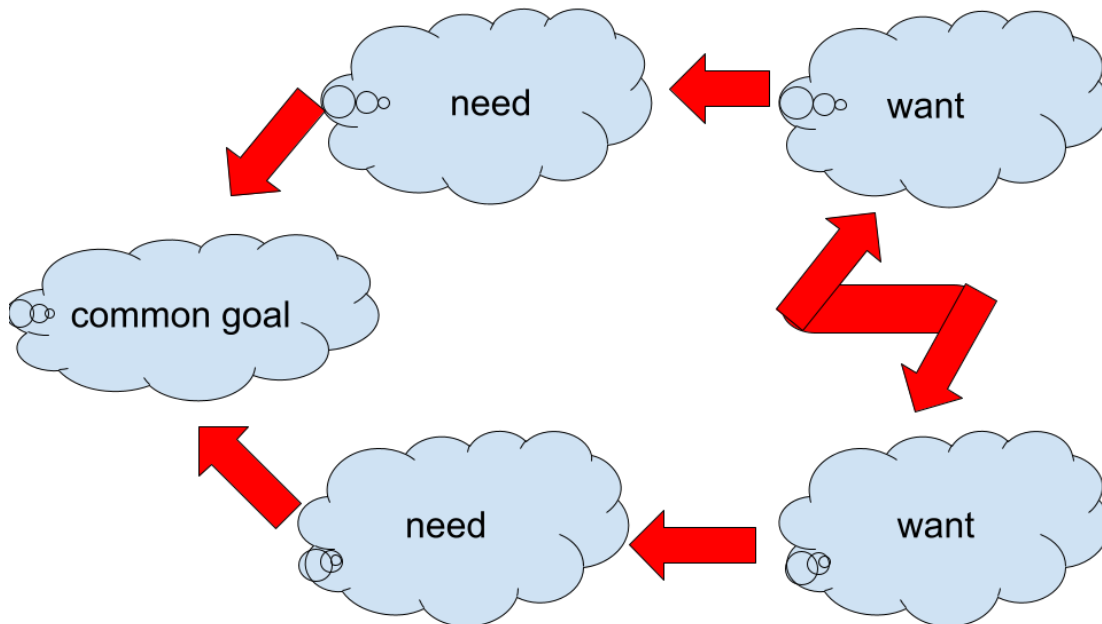
1. A story about Grzes and Robert.

The teacher reads or tells a story about two boys.

*Grześ goes to the fifth grade. He has a large class, there are 33 students. Grześ is usually happy to go to school. He looks forward to meeting his classmates. Grześ likes to learn new things, sometimes he needs to work more on math, so that he understands all the calculations. In fifth grade, math became increasingly difficult for him, he worked a lot after class. One day, during a math lesson, Ms. Kasia asked him to solve a task on the blackboard. Grześ started solving the task confidently, but at some point he made a mistake and the whole result came out*

wrong. Then Robert, a classmate shouted - he is stupid, he doesn't know the answer and laughed out loud, so that the whole class heard him, including Grześ. Grześ became immensely embarrassed. He could no longer get a word out. Since then he has refused to answer in front of the class. He often has a stomach ache before going to school.

**TASK 1.** Based on the story, the children together with the teacher create a conflict cloud. They reflect on the needs of the characters, discuss possible solutions to this conflict.



We encourage students to think about what needs are behind ridiculing/mocking/laughing at others. Even very young students are able to name the need such as: to be noticed by others, the need to be appreciated (even if it is at the expense of others). Children automatically seek solutions to conflict based on the needs of the parties.

Talking about emotions. What emotions are aroused by making fun of a colleague. How the person who is laughed at by others feels.



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



## **TASK 2.** Construction task "Mood testing instrument".

### **Introduction to the task:**

Surely you are familiar with various meteorological instruments for studying weather conditions (referring to the knowledge of children from the first grade). List the devices you remember for measuring temperature, atmospheric pressure, wind direction and strength, rainfall, etc. We create space for free sharing of knowledge and remembered knowledge of meteorology. We summarize the discussion that instruments such as thermometer, barometer, rain gauge, wind gauge, etc. allow us to study and predict the weather.

However, today in the lesson we are talking about the emotions we feel when someone ridicules us, for example, and we are looking for ways to deal with such situations. That's why your task will be to construct a modern mood-testing device.

### **Instruction:**

1. Divide into groups of 3-4 people (you can leave space for the children to freely select into groups according to their preferences, or select groups by drawing lots if the class needs to strengthen cooperation in different compositions of people).
2. Each group will now receive the same set of construction materials and scissors.

### **Materials needed:**

- \* cardboard plate.
- \* a plastic cup
- \* 3 plastic straws.
- \* 2 shashlik sticks
- \* a roll of toilet paper
- \* a piece of plasticine.
- \* 3 paper clips.
- \* 4 toothpicks
- \* 40 cm of string
- \* 3 rubber bands
- \* 3 pieces of paper from a notebook.

**NOTE:** These are reference materials, but keep in mind that for creative construction tasks it is good to give children to use what we happen to have available: rice package, supermarket

net, hair shampoo bottle, walnuts, chestnuts, etc. It is important that the sets for each group be identical.

**Instruction:**

Your task is to construct a modern "mood testing instrument". You can use only the materials from the prepared kit for construction (you can't use other additional materials, e.g. your own or those available in the classroom), but you don't have to use all of them.

***This instrument is to meet the following conditions***

Concerning emotions:

- Study at least two emotions
- Have a function to change the mood

Technical terms:

- contain a single movable element
- be handy and practical, that is, so that it can be carried, taken with you, used in various life situations.

Timing: You have 10 minutes to construct your invention.

NOTE: After completing the work, your group is to present its invention in the form of an advertisement.

**Points:**

- Ingenuity of the instrument: 1-10 points
- 2 points for each condition (repeat conditions with children: study at least 2 emotions, mood changing function, movable item, handy/practical)
- Group cooperation: 1-10 points
- Presentation of invention: 1-10 points

Time for comments and questions: Do you have any questions?

It's time to get started!

## **3.2. Sample lesson plans - SCENARIO 2. Mountains**

**CLASS:** 3 - primary school



**TOPIC:** Mountains

**PROBLEM:** Internal dilemmas, the ability to give up something we care deeply about and put a lot of effort into, something we planned for a long time.

**AIM:** Making it clear that life is full of difficult decisions and dilemmas. Showing the probability of the consequences of one's decisions. Seeing what is loss, resignation, what it means to mourn a loss. Answering the question, when do we turn out to be strong? WHEN giving up something that threatens our lives is courage or cowardice? When apparent cowardice requires our strength and courage. Cooperation, teamwork, good atmosphere when working hard.

**LESSON:** 1. The teacher reads or tells the story.

*"Climbing Mount Blanc (4810 m.a.s.l.) has always been my dream, I watched photos and videos about the first ascents of Mount Blanc, about the difficulties involved.*

*I prepared for this expedition for half a year, collected money, bought equipment, suitable clothes, a tent. I reviewed maps and routes in detail, I took a course in alpine tourism so that I would know how to use the cheques and crampons. Finally, the longed-for time had come. I planned to go to the mountains at the end of July, that's when the weather is best. I flew to France, to Paris, from there I took a train to the Alps, to Chamonix. I spread out the ascent to the summit in several stages.*

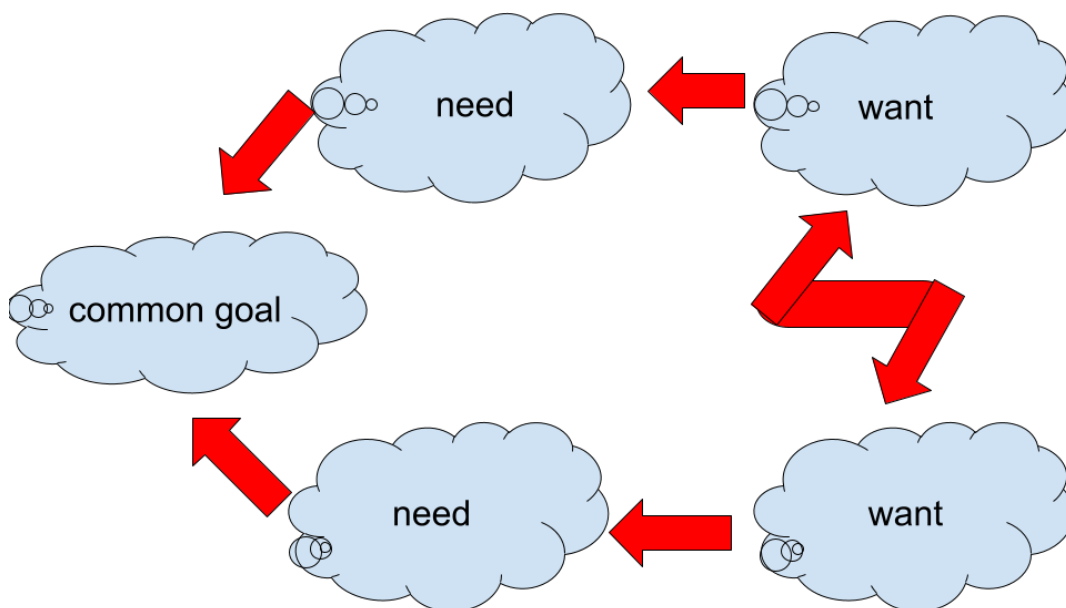
*First, I ascended to the next altitude, 2,300 meters above sea level. Then I set off on the route. Two days there I waited for my body to get used to the altitude. After two days, I moved on to the mountains. The forecast was for beautiful, sunny weather. For the first few hours, everything went according to plan, I gradually climbed up the mountain. Unfortunately, after five hours the sun went down, clouds began to cover the sky. The weather was changing quickly. With only 30 minutes of climbing left to the summit, the sky looked more and more threatening. I had dilemmas about what to do next.*

**TASK 1.** Based on the story, the children together with the teacher create a conflict cloud. They reflect on the needs of the protagonist, discuss possible solutions to this conflict. We create a cloud - an internal dilemma.



Students answer questions and write their answers in the cloud graph.

- What conflicting demands does the hero of this story have, what does he care about?
- What needs are behind these demands?
- What is his goal?
- Students create a list of possible solutions.



## **TASK 2.** Construction task "*Bridge over the precipice*"

### **Introduction:**

The teacher divides the class into groups of about 4., and then in front of each group sets 2 chairs at a distance of about 60-80cm. The same distance for each group. And then he puts in front of each group a few/some newspapers.

Imagine that the two chairs are two steep, dangerous mountains, and there is a deep chasm between them. The teacher shows the students the chairs and, building the mood, introduces them to this imagining. At the foot of one of these mountains lies a picturesque village, and a hut was once built on the slope of the other mountain. The villagers decided to build a

suspension bridge over this precipice to help them reach the hostel faster and as an exciting tourist attraction.

**Instruction:**

Your task is to build only from the newspapers you receive a hanging bridge between mountains that is chairs. You can roll the newspapers, tear them, punch holes, connect them to each other, etc., as you wish and as agreed in your group. The bridge must not be supported or propped by anything, it is to hang independently. You have 10 minutes to do this.

After the time is up, I will say STOP and you must then finish creating your bridge. Then the testing part will take place, because many people will be crossing the bridge and it must be safe.

**BRIDGE'S TESTS:**

You will only have one minute to test the bridge. When the teacher says START and turns on the stopwatch, the team has to place their group members' shoe on the bridge one by one. Testing will continue until the full minute is up, or until the bridge is broken.

**POINTS:**

- Group cooperation: 1-10 points
- Each shoe laid: 3 points

**NOTE:** The team can earn an additional 8 points if, during the building process, it comes up with a rhyming slogan for the opening of the bridge and presents it before testing.

Get to it!

## 4. Building a school environment supporting mediation - practical tips

The introduction of mediation at school requires preparing the school environment for such a change. It is a process with several stages, and it is necessary for the entire school community to be oriented toward win-win conflict resolution.

### Stage of choosing peer mediators.

We are conducting a school trust survey among senior students at school. Our proposed questions were about the people students trust at school; people they can trust with a secret; people they can turn to in a difficult situation, explaining that students should not put there the names of teachers but their peers. Students were informed that it may be that they don't have a person in their immediate environment they trust, and this will also be information for us. The survey was conducted anonymously. After the votes were counted, meetings were held with the students whose names came up most often. To the organizational meeting were invited both these people and all those willing to participate in the project of school mediators. During the organizational meeting the idea of our club was discussed, the contracts that were signed with the participants of the Mediator Club were presented.

We wanted the students not to treat the Mediator Club meeting as an additional after school activities, but rather as a unique opportunity to acquire competencies that will be useful to them in adulthood, and a chance to interact at school.

Training for school mediators came after we had been working with the mediation method at school for two years, only that the mediators had previously been teachers. The school already had a culture of mediation and win-win conflict resolution, and students had the experience of participating in mediation during conflicts with colleagues. Creating such an environment makes it easier to conduct workshops for school mediators.

## 5. Using TOC in school mediation

### 5.1. A scenario for school mediation with the use of TOC tools

### 5.2. Suggestions for sample exercises for school mediation

Below you will find some exercises to use while working with peer mediators.

#### Exercise

*From emotion to the need.*

Below you will find a few short stories. Carefully read them. Secondly, write down all emotions that the characters might have had, and try to diagnose what kind of unmet or met needs could lead to difficult and unpleasant behavior.

#### Story 1

Ann brought to school brand-new markers. She put them on the bench, turned to Emma and pointed to the package with a smile. Emma made a strange face, Ann somehow became uncomfortable. She admired Emma and cared about having a good relationship with her. Being in Emma's team made one feel important. During a break, Ann approached her friend.

- I have the same markers as you," she said and smiled.

- I noticed - Emma did not look happy at all. - A week ago you also had the same eraser and sharpener," said Emma and walked away. Ann stood stunned.

When the next lesson ended, Emma walked past Ann's bench and tripped a water bottle, which spilled on Ann's brand-new markers.

- Ah, sorry," Emma said and left for a break. Ann's throat tightened.



	<b>Situation</b>	<b>Emotion</b>	<b>Unmet/met need</b>
ANN	Ann brings new markers.	Joy, pride	Group affiliation
	Emma makes strange face when she sees Ann's markers.		
	Conversation between Emma and Ann.		
	Emma pours water on Ann' markers.		
	<b>Situation</b>	<b>Emotion</b>	<b>Unmet/met need</b>
EMMA	Emma sees that Ann has the same markers as Emma.		
	Ann boasts with her new markers.		
	Conversation between Emma and Ann		



	Emma pours water on Ann's markers.		
--	------------------------------------	--	--

## Story 2

During the break, the boys play potato. They sit in a circle and quickly get rid of the steaming vegetable. It is full of laughter and excitement. Next to them stands Johnny and very much wants to join in the game. He asks the boys, but they don't answer him anything. They start another round, Johny sits down in the circle, but the boys tell him that he can't play because he is holding a potato. Johny leaves the circle. When he returns to the room, he picks up a chair and wants to throw it at Simon. The boys start shouting, the teacher arrives.

	Situation	Emotion	Unmet/met need
JOHNY	Boys are playing the hot potato, John wants to join the game		
	Boys say that John cannot play with them		
	John takes the chair and wants to throw at Simon		
	Situation	Emotion	Unmet/met needs



BOYS	They play hot potato during the lesson brake		
	They don't allow John to play with them		
	John holds the hot potato		
	John takes the chair and wants to throw it at Simon		

### Story 3

A small dog runs into the playground. He jumps into the sandbox and cheerfully runs up to the children, who, however, start crying loudly. The dog's owner comes up to the sandbox and says to the children:

- Don't be afraid, she is gentle, she wants to play with you.
- Take this mutt out of the sandbox. Here it is forbidden to bring animals in, didn't you read the sign on the placard? - shouts one of the mothers, who ran quickly to her child and dragged the screaming one out of the sandbox. - I'm going to call the Municipal Police right away.
- But my dog is very gentle, he just wants to play. - The dog owner defends herself.
- But my child does not want to play with your dog, where did you get this idea? - shouts the mother of the toddler. - All dog owners say that about their dogs, and then the children are bitten.





The lady with the dog hastily moves away from the playground.

- She didn't even apologize. - Complains the mom.

	<b>Situation</b>	<b>Emotion</b>	<b>Unmet/Met need</b>
DOGS OWNER	Talks about her dog, suggests that it only wants to play with children		
	Mom of the child shouts at the dog owner.		
	The dog owner defends herself, convincing that the dog is gentle.		
	She moves away from the playground.		
	<b>Situation</b>	<b>Emotion</b>	<b>Unmet/Met need</b>
MUM OF CRYING CHILD	Children start to cry after dog has entered the playground.		
	The dog owner convinces that dog is gentle.		



	Mom wants to call for the Municipal Guard.		
	She is outraged that the dog's owner did not apologize.		

## 6. Summary

The TOC tools presented in this guide and how to use them are intended to provide support and a sense of security in using new tools and newly acquired knowledge. They are also intended to encourage the use of new skills and the risk of making mistakes in learning and implementing the new. The guide is intended as an incentive to try to use TOC tools to build lesson fragments, whole blocks of lessons or projects on them. The exercises and lesson scenarios proposed in this guide were used during the mediator's club, i.e. during additional classes, during the innovation introduced in NSP Lokomotywa, but above all during the most basic lessons in early childhood education, i.e. classes integrated within individual education (language, mathematics, social, etc.) and on individual subjects in the older grades. We used TOC tools remotely and at school. We taught understanding and communication. And we know that it works, that it brings results, that it teaches you to think, but also broadens your perspective. It tidies up, but does not stiffen or tighten anything. Speaking in a modern language, the teacher has the opportunity to be an influencer and influence the reality of children and their entire families. Learning to mediate - peacefully resolving conflicts, learning to look at oneself, others and the conflict by focusing on the needs - those satisfied and unsatisfied is our real contribution to the life of the entire school community. This education does not consider who is to blame, but looks for what needs drive the behavior of a given person. This is a complete change of perspective. It is learning decisions based on your own needs. TOC and mediation can contribute to building a school based on relationships,



closeness and good communication. Being a teacher is using your own intellectual resources, tools, and educated personality, it is referring to values. Through this guide, we encourage you to search for, make education more attractive, but not to color it, decorate it, or do it for the students. Equipping, giving challenges, tools and the power of independence, agency is a textbook on how to be creative and require a creative approach from students.

You can find this guide helpful as it provides new ideas, proven solutions and shows you the step-by-step process of introducing TOC tools. It gives you the opportunity to see how others have worked, practice your own work with TOC tools and the power of exercises to inspire you in building your own workshop.