



# ICU

-a toolbox for optimal  
teaching





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## **ICU – A TOOLBOX FOR OPTIMAL TEACHING**

ICU - a toolbox for Optimal Teaching was a student and teacher based two year project. Project activities were planned for students from 6 to 12 years with focus on the 6 to 9 year groups. There were 6 primary schools from Croatia, Estonia, Finland, Norway, Poland and Spain participating in the project.

Our demands and expectations towards education have increased and changed within the last decade. We see that the tendency of pupils dropping out of school is getting stronger and stronger and that the world itself is changing. Because of that we need to keep up with the challenges. We strongly believe that in order to stop this tendency we need to make pupils feel connected to education in the way that they see that they can gain their goals from an early stage. This will also increase students will to learn on a higher stages in their education. Teachers work in different classrooms throughout Europe and they all have some good ideas about how to teach better. The main project goal was that our six schools together could and would do it even better!

We strongly believe that students only need good teaching methods that suit them to keep up with the others. They need to master the basic skills to make learning more sufficient and to improve the learning process in each child in every level. This project put focus upon the five basic skills: oral, writing, ICT, numeracy and reading. We aim to see every child as an individual, to find his or her level and help them to achieve their full potential. That is why we needed to create a Toolbox for optimal teaching of basic skills to be used all over Europe.

The partnership had two main objectives. The Toolbox of methods for increasing the five basic skills and the European dimension. We wanted to collect, try out and improve methods from all partner schools regarding the five basic skills and create a Toolbox for Optimal Teaching. Through our methods we wanted our students to take more responsibility for their own learning and to improve their ability of self-evaluation. We also aimed to develop links between different European countries. These project activities improved teachers' and pupils' understanding of cultural influences on the provision and the nature of education. We wanted the

students to grow into a stronger European identity. The project - based activities were integrated into the curriculum of every partner school.

The cooperation increased the teachers` ICT, English and professional skills. The students aged 6-12 participation in various activities increased their self-esteem and motivation for learning, and thanks to high - quality teaching they improved their basic and transversal skills. Both teachers and students were engaged in every stage of planning, implementation, evaluation and dissemination of results.

The main result of the project is the Toolbox you have in front of you. The toolbox includes description of the methods, how the teachers can apply them, examples, expected results and what the methods want to affect. It gives the teachers the possibility to make their own teaching more efficient, varied, interesting and innovative.

As it is clearly important that every person and community works to sustain and improve their educational environment it was agreed that the innovative theme of "ICU" (I See You) would provide a wider issue of motivating children to take responsibility of their own learning and of self – evaluation and also give to the teachers a valuable resource for their everyday work.



Hatteng skole, Oteren, Norway

<http://www.hatteng.skole.no/>



Lene Bakke, Kasper Holmen, Heidrun Nyaas Grønvoll



**Osnovna škola Glina, Glina, Croatia**

[www.os-glina.skole.hr](http://www.os-glina.skole.hr)



Milan Davidović, Jana Medved Kireta, Valentina Pereković,  
Anita Javornik Baltić, Zoran Kirinić, Robertina Štajdohar,  
Štefica Ponder, Maca Pereković, Andrijana Kirin, Vesna Netoušek

## Uuemõisa Lasteaed-Algkool, Haapsalu, Estonia

[www.ua.edu.ee](http://www.ua.edu.ee)



*First row, from the left:* Piret Riis, Lehti Tammus, Karin Sarapuu, Sirje Sinitskaja, Triin Ratas, Imbi Mäepere, Lea Samarajev

*Second row, from the left;* Taimi Sarapuu, Kaja Ladva, Mare Rannast, Ülle Sass, Toomas Vallimäe, Maia Tohver, Triin Ollema, Aire Oruste, Saskia Voogla.



**Itä-Hakkilan koulu, Vantaa, Finland**  
[www.sivistysvantaa.fi/ita-hakkilankoulu](http://www.sivistysvantaa.fi/ita-hakkilankoulu)  
[www.facebook.com/itahakkila](http://www.facebook.com/itahakkila)



*Back row from left: Susanna Sirén-Lääperi, Anneli Kihlström,  
Antti Salmenkaita*  
*Middle row from left: Petra Salmisuo, Anniina Chiboma,  
Anna-Maija Törmälä, Eva Ahokallio*  
*Front row from the left: Anna Luukkonen, Minna Kellokoski-Nieminen,  
Anna Tuomaala, Karoliina Pellikka, Maiju Rissanen*

**Szkoła Podstawowa nr 3 z Oddziałami Integracyjnymi im. Adama  
Mickiewicza w Lubsku, Lubsko, Poland**

<http://www.sp3.lubsko.pl/>



Renata Pisarska, Iwona Wójcik, Danuta Modrzejewska,  
Dorota Merwa, Agnieszka Cierebiej, Maria Uryś

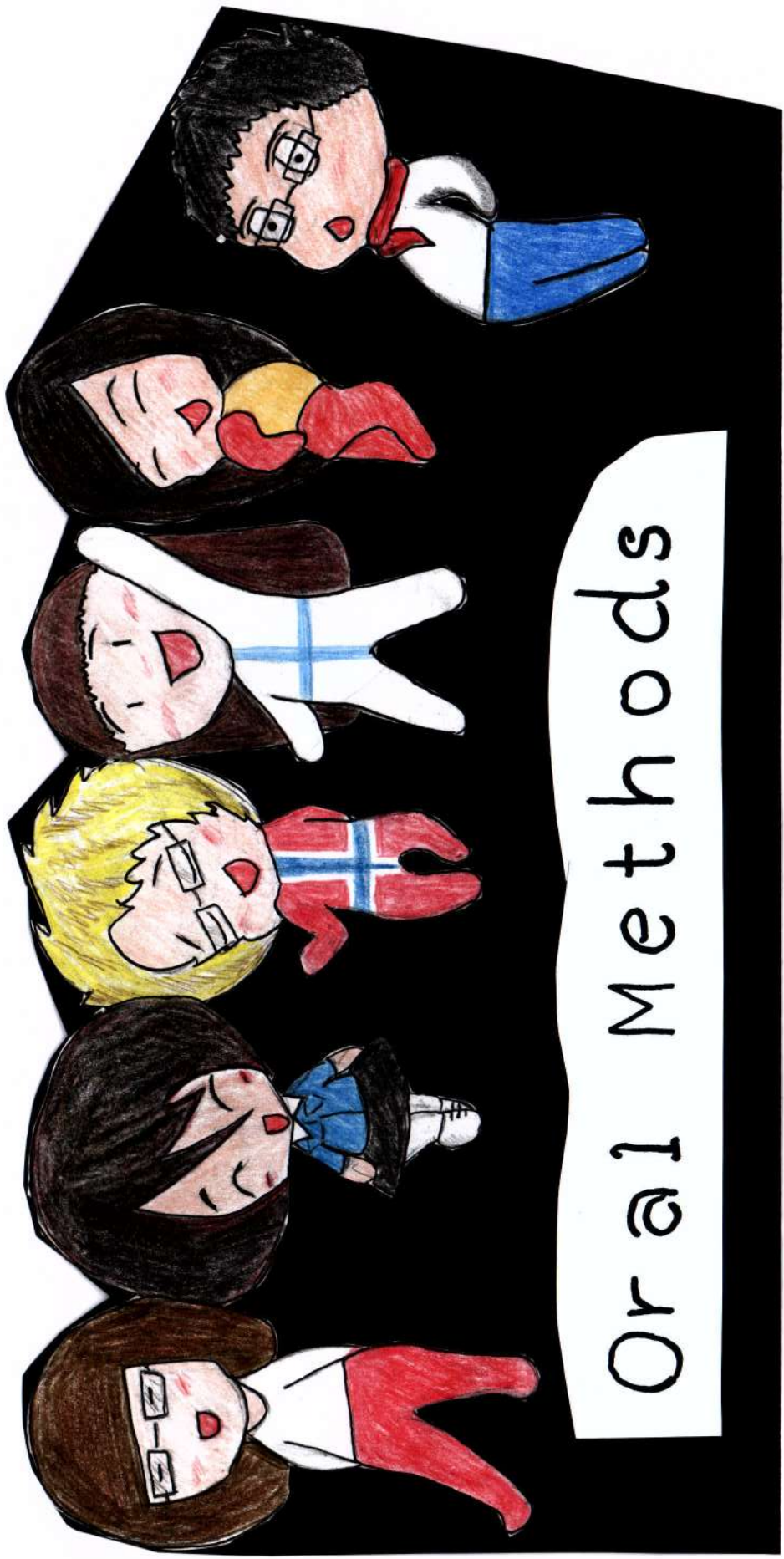


**Escola Josep Veciana, Perafort, Catalonia, Spain**

<http://blocs.xtec.cat/escolajosepveciana/>



Fàtima Sabat Achon, Concepció Gallegos Andreu, Rosa Isabel Roig Subirats, Susana Maresca Quero, Núria Parra Català, Meritxell Felip Terré, Cristina Sans Amezcua, Maria del Mar Quiroga Campos, Javier Girón Isaiz, Montserrat Hortonedo Marques, Raquel Hernández Vela



Oral Methods

# ICU - a toolbox for optimal teaching

**Name:**

Story Crafting

**Skill:**

Oral

**Equipment:**

Paper and a pencil or any writing equipment

**How to do it:**

In Story crafting a pupil learns new ways to express his/her thoughts and feelings and sees how the spoken language turns into written language. It also gives a feeling of success and importance. Through story crafting you can get to know a new person and learn to respect another person's thoughts.

A pupil will tell a story that he/she wants. Teacher / adult / an older pupil will write it down just as he/she will tell it. When the story is ready it will be read aloud. If person who told the story wants to make corrections or changes he/she can do it.

Story crafting is a good method for every aged pupils. It can be used in every subject or theme but also just in language learning. You can pair up pupils so that good writer and a good teller to co-operate or you could create one common story for the whole class.





# ICU - a toolbox for optimal teaching

**Name:**

I am a tree

**Skill:**

Oral

**Equipment:**

No equipment needed

**How to do it:**

All the students sit in a circle. One student goes in the middle of the circle and acts who or what he/she is in the picture. E.g. the student puts his/her hands above the head and says: "I'm a tree." The student will stay in the middle of the circle, in the picture.

Now the teacher asks: "What else is in the picture?" Another student goes in the middle of the circle and adds something to the picture that is connected to the first element. E.g. he/she acts like a peeing dog and says: "I'm a dog that is peeing on the tree." Both students stay in the middle of the circle, in the picture.

The teacher asks again: "What else is in the picture?" Another student goes in the middle of the circle and adds something to the picture that is connected to the first element. E.g. he/she acts like a cat who is climbing up the tree and says: "I'm a cat that is climbing up the tree to hide from the dog." All the students stay in the middle of the circle, in the picture.

It is up to the teacher how many elements they want to add to the picture.

Now the class composes a story based on the picture that was created by the students. When the story is ready, the student who acted the first element will say what element in the picture stays as a first element of the new picture.

Our students also found modifications for the method. The student who acted the last element said which student will add the next.

It is good to use this method in different subjects, e.g. English, History and Science. It is

good to use it for revising because physical activity helps the students to remember the topic better.

This method is also good to use in the kindergarten, children attention was very high.



# ICU - a toolbox for optimal teaching

**Name:**

The Sticks

**Skill:**

Oral

**Equipment:**

You need ice cream lollies` sticks – as many as you have pupils. Write names on each sticks. Put them in a cup.

**How to do it:**

The sticks can be used in several ways and in all subjects.

When you want a pupil to answer a question, you pull a stick from the cup. The pupil whose name is said needs to answer. Put the stick back into the cup. By putting the stick back you ensure that the pupil that has answered still can be asked to answer another question. He/she still needs to pay attention because he/she can still have his/her name pulled up from the cup.

You can also use it when you want the pupils to read out loud in the class. This method keeps the students` attention. You can also use it for making groups. You can let the student that was last asked to pick the next one from the cup. You can let one kid be responsible for the cup and pulling sticks. If a pupil cannot answer, he/she can ask a volunteer.

The method also goes well with secondary classes. The pupils can make their own sticks. The students like it, they really want the teacher to use the sticks. You can also introduce an "empty stick": when the teacher pulls this one, the pupils can put up their hands – volunteers.

The method can also be used for social training: the teacher pulls two sticks. These two persons will take especially care of each other during the break. The same procedure



with the rest of the sticks. This makes the pupils more aware of each other.



# ICU - a toolbox for optimal teaching

**Name:**

A basket and a suitcase

**Skill:**

Oral

**Equipment:**

a basket and a suitcase (real or handmade boxes)

**How to do it:**

Students work on a topic in the classroom that involves a kind of problem and it can provoke some emotions. They work on pluses and minuses/ advantages and disadvantages/ weak and strong points. To evaluate the topic they write on one piece of paper what they see as a strong point and put it into the suitcase and on another piece of paper what they see as a weak point and put it into the basket. Next, they take out the pieces of paper from the basket and the suitcase one by one and discuss what has been written down. They usually take other student's answers and comment on them (how they understand, if they agree or not). It can be used after reading a story / legend to assess the heroes' behavior, during history lessons to assess the event (for example a king's decisions), in science lessons to work on healthy lifestyle. It is useful to involve people into a discussion. The method can be used after watching a video to discuss strong/weak points about the story or after reading a book. It can be used to





solve a conflict or help to talk about feelings.

The method can be used while working both with younger and older students, in different kinds of lessons to discuss whatever subject.



# ICU - a toolbox for optimal teaching

**Name:**

Poem – rhyme – story crafting

**Skill:**

Oral

**Equipment:**

A piece of paper, pencil

**How to do it:**

Teacher tells students a topic they will work on today. Students sit in a circle. Every student has to say one sentence for a story or a verse for a poem regarding a topic. Basic ideas about the topic can not be repeated and students have to listen to each others and think about what has been said so far. Teacher writes down their sentences or verses. When all the students are finished teacher reads the poem or a story and creates a discussion about the final product. If it is a language lesson you can discuss the structure and all the language aspects of the story – poem. In other subjects you can discuss the topic (what has been said, what important information can be added, etc.)

This method can be used in different subjects. In languages for creative thinking, in science for repeating already learned topics, etc. The base of this method is cooperative learning where student have to work together to reach the final goal.



# ICU - a toolbox for optimal teaching

**Name:**

Word formation

**Skill:**

Oral

**Equipment:**

No equipment needed.

**How to do it:**

This method is very useful for repeating and using new words or discussing word types in mother tongue or foreign languages.

Children sit in a circle. Teacher says one word (noun, verb or adjective) and a student next to him has to say a new word starting with the last letter of the word teacher said. Student also has to say if the word he said was a noun, a verb or an adjective.

You can use this method in a teaching of foreign languages for a word revision and add that student after saying a word also spells it.



# ICU - a toolbox for optimal teaching

**Name:**

Oral exposition

**Skill:**

Oral

**Equipment:**

School material to prepare their expositions as pencils, paper, scissors...

**How to do it:**

Our students do at least two projects per year. When the project is finished they prepare an oral exposition. They choose from what they have learned what they want to explain to their schoolmates or sometimes to their parents.

It's a good oral activity because they are very motivated and they feel proud about what they have learned and to explain it in their own words helps them to be confident about themselves.



# Reading Methods





# ICU - a toolbox for optimal teaching

**Name:**

SEESAW

**Skill:**

Reading

**Equipment:**

Tablet, mobile phone or computer

**How to do it:**

First you must download the seesaw application from an app store when using tablets or phones. You can also use the application directly on the computer (microphone and webcam needed). The teacher will receive an e-mail with details about signing in the students. To start the use the teacher must create an account. Then the teacher creates a group and adds the students to the group.

The teacher prints out the classroom QR code poster and puts it in the classroom for everybody to see. No other apps are needed to scan the QR code because Seesaw has its own built-in QR code reader.

If you are using Seesaw on your computer go to <https://app.seesaw.me> to sign in.

The application is useful for reading practice, especially mechanical reading. It is very suitable for lower classes when reading homework aloud. A pupil can record reading syllables, words and sentences and also longer texts.

Seesaw also records the time spent on reading. The application saves teacher's time during the lessons because the pupils can record the reading by themselves. The

teacher can listen to the recording anytime.

Seesaw can be used in all the subjects. It depends on teacher to choose what kind of texts pupils will read and record.



# ICU - a toolbox for optimal teaching

**Name:**

The ball of yarn

**Skill:**

Reading

**Equipment:**

Text cut into paragraphs or sentences, a ball of yarn.

**How to do it:**

This method is for technical reading.

First the teacher prepares the ball of yarn: he/she ties the paragraphs or sentences of the story to the yarn and then scrolls the ball, starting from the end to the beginning (so that when unravelled, the text will be read in the correct order). In classroom, the children start to read the sentences or paragraphs as they unravel the ball of yarn. The method can be used in all the subjects where children have to read a text.

It can be used with both younger and older students. It takes a lot of preparation from the teacher, but it is very interesting for the students. Children have to be very concentrated. It is also good because all the children can be involved equally, also those who don't read as well as others.

The method was also used to explain words – within the ball of yarn there were difficult words that are in the text, in that way it was a pre-reading activity which involves both curiosity and movement.

This method can be combined with the method "The hot seat."

# ICU - a toolbox for optimal teaching

**Name:**

The hot seat

**Skill:**

Reading

**Equipment:**

Text; chair(s)

**How to do it:**

After reading a text, children will make up questions for the main character(s). Then a child or children, depending on how many the main characters are, sit on the chairs in front of the class and other students start asking questions. The questions can be wider than the text – students can ask what happened before and later.

It is good to use this method for analysing text. It can be used in foreign language lessons, history lesson and even in science, e.g. the students are learning about animals, one student can sit in the hot seat and others will ask questions about the animal. This method can be used orally with small ones. Children loved the method, it made them think.

With this method it is important to concentrate on reading the text. It is good especially in foreign languages. Students have to read carefully. With the method it is good that students can be creative. Children loved the method because when you sit in the hot seat you can invent a lot. It was very interesting to use it in History lesson.

This method can be combined with the method "Ball of yarn."

# ICU - a toolbox for optimal teaching

**Name:**

Word Bingo

**Skill:**

Reading

**Equipment:**

A worksheet divided into squares – 9, 16 or maybe 25.

List of new word in the topic you're working with.

**How to do it:**

The student write down words from the wordlist into the worksheet. The teacher picks a word from the wordlist and say it. And continues with another word, and so on. If the student has written down this word he/she can mark it. The goal is to be the first one to get a line of words marked. Or the optimal champion gets every word on the worksheet marked.



# ICU - a toolbox for optimal teaching

**Name:**

HIP - reading

**Skill:**

Reading

**Equipment:**

The text

**How to do it:**

This is a pre-reading activity. Its goal is to help the students to get an overview of the text they are going to work with.

We call it HIP – reading:

H – Read the Head Titles in the text

I – Read the Ingress

P – Look at the Pictures and read the text beneath the picture. Ask the student what they think this text is about and what they will learn.



# ICU - a toolbox for optimal teaching

**Name:**

The Golden Triangle

**Skill:**

Reading

**Equipment:**

The text

**How to do it:**

Three students work together. They have three assignments. One is to read the text aloud for the other two. The second is to make five questions to what is read. The third is to answer the questions after number one is done reading. You can divide the text into three part and switch assignments.





# ICU - a toolbox for optimal teaching

**Name:**

Reading and sketchnoting

**Skill:**

Reading

**Equipment:**

a text, a notebook, coloured pencils

**How to do it:**

Students read the text. They are asked to process the information from the text in the form of sketchnoting.

Sketchnoting is a kind of visual note-taking. Students sketch, draw, write to show the understanding of the text. They read the text and map out their knowledge – what they have learned from the text. Design and layout are up to the students.

A teacher gives a task and the criteria of what the note should contain or students are free to decide what they have learned while reading.



Hi, I'm Peter. I love the sea. I like swimming but I love sailing. Today I'm sailing a boat. The weather is perfect for sailing. It's sunny and windy. I'm with my parents. They're good sailors. It's great fun.



# ICU - a toolbox for optimal teaching

**Name:**

The postman

**Skill:**

Reading

**Equipment:**

cards with instructions

**How to do it:**

The teacher prepares pieces of cards for children with some tasks to do. S/he puts them into a kind of box or a bag. The students are asked to take out one piece of paper, read the card and do what is written on it. The teacher asks students to read and follow the instruction.



# ICU - a toolbox for optimal teaching

**Name:**

Backwards reading

**Skill:**

Reading

**Equipment:**

Short reading text or different texts

**How to do it:**

Teacher has to prepare one text for all students or several different texts that are not very long. It can be a text with only capital letters or a normal one. Students have to read the text from the end to the beginning, sentence by sentence.

The aim of this method is to motivate students to read more in a new and different way, interesting to them. Also using this method students have to be able to visually determine the sentences in the text. Using this method students practice also reading speed and ways to find in the text the beginning and the end of the sentence. Doing this they challenge their brain functions. After reading the text this way students have to say in their own words what was the text about but starting from the beginning to the end. This method can be used in all subjects.



# ICU - a toolbox for optimal teaching

**Name:**

Reading Helpers

**Skill:**

Reading

**Equipment:**

Reading books

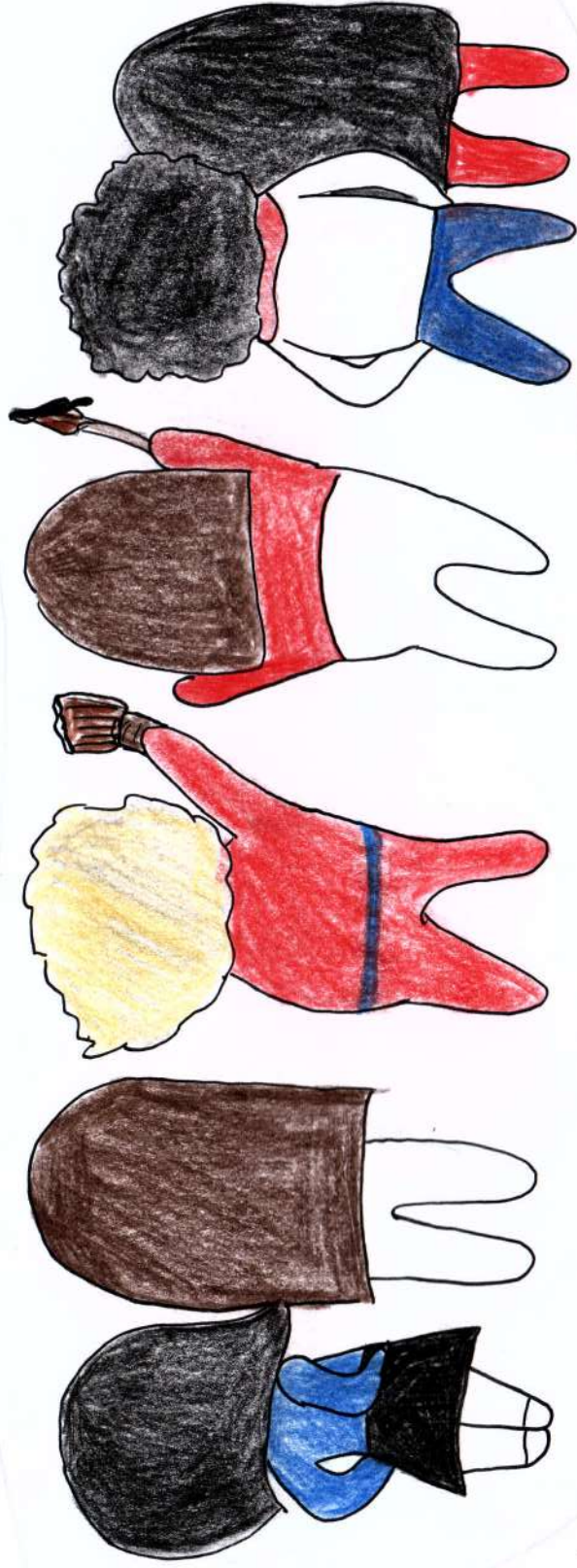
**How to do it:**

The eldest students are "Reading Helpers". The eldest students help the youngest ones in the process of reading.

At the beginning of the school year the teacher of younger students and the teacher of the eldest students meet in order to decide who will be the helper of whom.

The eldest students go to the youngest students' class once a week during half an hour and help them to read. Books are organized by levels (we use colors to recognize them). In the class they also have a chart with the child's' photo. Then the students write the name of the tale that they have read and they also stick silver stars stickers. They stick three stars if they love the tale, two stars if the like it and three If they don't live too much.





Writing Methods

# ICU - a toolbox for optimal teaching

**Name:**

Active Buckets

**Skill:**

Writing

**Equipment:**

Buckets, words on paper pieces, (tablets, Seesaw –application), yard or spacious room

**How to do it:**

Pupils are working in groups. There are buckets filled with different words around the space (big classroom or yard). Words are from certain sentences made by teacher. There should be the same amount of buckets as there are groups. Pupils will run to their bucket, take a word and then return to their group. The next in line goes and takes another word.

Word by word the sentence will start to occur, and pupils have to figure it out together. If the word doesn't match to the sentence, pupils have to go to the bucket, change it and try again. When the sentence is ready, pupils take a picture and write it to the tablet using Seesaw. They can also write it down on a paper if tablets are not available.

The sentence can be used for example as an idea of the next writing assignment. You can vary the method in all subjects and different ages. In language learning the sentences could be in English, in Math the buckets could be filled with math problems and pupils would try to solve them and write the answers to the Seesaw.

With smaller pupils there could be letters of a certain word in the bucket, older ones could practice grammar or the function of words (adjective, verbs, pronouns). Sentences can also be a summary of a theme taught in science or history lessons. Older pupils could also write the sentences to other groups.

You can also vary the exercise so that in one bucket is the same word and all the groups must get a word from every bucket. It gets more interesting if the buckets are



hidden. Then the group must co-operate which buckets have been found already.



# ICU - a toolbox for optimal teaching

**Name:**

Composing a story

**Skill:**

Writing

**Equipment:**

Colored papers, drawing paper, glue, colored pencils

**How to do it:**

This method is a pre-writing method to gather ideas for writing a story.

Students get one sheet of coloured paper. They close their eyes and tear something out of the coloured paper. They can try to tear something specific or something abstract. After tearing the paper, they open their eyes and look what they have. Then they paste the shape on the drawing paper. After that the students can draw something on the paper to make the shape into some specific picture. When the picture is ready, the student writes a story about the picture. Method can be applied to all subjects because the stories can be about anything. In mathematics it is possible to write a mathematic story where there are calculations put in the story (e.g. the tiger went  $6+7= \dots$  m forward) or the students are told to tear a certain shape of the coloured paper.

It is very creative method, the outcome is always astonishing, because students have different point of view to art. This method helps to develop creativity and skills to write a story. It also makes the students to think out of the box. This is a fun method and gives opportunity to write about whatever the students can imagine.

# ICU - a toolbox for optimal teaching

**Name:**

Molla ABC

**Skill:**

Writing

**Equipment:**

Tablets, Molla ABC- application

**How to do it:**

Pupils will practice the correct forms of letters (capital and texting) and numbers with Molla ABC. It's helping pupils to learn the right directions of singular letters and numbers in writing. The symbols will occur to the tablet's touch screen. Pupils use their writing hand's first finger or a touch screen pen. The application can be programmed so, that the pupils will practice certain letters and numbers as many times as needed until moving on to the next one. Molla ABC is a free application. It can also be used with smart board or table computer with regular computer mouse. Pupils can use it also at home as homework free of charge.

<http://www.nordicedu.com/molla/MollaWebGL/index.html>



# ICU - a toolbox for optimal teaching

**Name:**

The Exit Ticket

**Skill:**

Writing

**Equipment:**

Sticky notes – piece of paper for each student

**How to do it:**

When you start a lesson, you present the learning-goal for your students. In the end of the lesson, you give the students an assignment (short) that sums up with the lesson learning-goal. Each student write the answer on his/hers sticky note and gives this to the teacher before he/she leaves the classroom. This gives the teacher a chance to evaluate if the students have reached the goal, did or didn't understand. This activity is also a tool for formative assessment.



# ICU - a toolbox for optimal teaching

**Name:**

Wandering mugs

**Skill:**

Writing

**Equipment:**

mugs, word cards

**How to do it:**

Two versions of the method:

1. A teacher prepares 3 kinds of word cards: nouns, adjectives, verbs. S/he puts the cards into three mugs (each part of speech separately). A child takes out one word card from the each mug. Student reads the word cards, makes a sentence with these words and writes it down.
2. A teacher prepares 4 kinds of cards: the place of action, time, the main hero, the plot. S/he puts the cards into four mugs (each kind of cards separately). A child takes out one card from the each mug. The student reads the cards, joins the information and writes the story using these cards.

We can prepare a limited number of cards. After reading and writing a sentence with them students can put them back into the mugs.

The categories can be different. A teacher or students can use a dice to choose a word



from different mugs that are given numbers. They can choose cards to form a topic of an essay or a story.



# ICU - a toolbox for optimal teaching

**Name:**

Game of associations

**Skill:**

Writing

**Equipment:**

Assignment chart (see appendix and example chart)

**How to do it:**

Teacher draws a chart on the blackboard (see appendix to this method) before the start of the lesson. Every chart has 4 columns. Each column contains 5 cells. In column 1 teacher writes 4 words that are associated to one key word that is written in cell 5 of the column. Teacher does the same procedure with columns 2, 3 and 4. Words that are written in cells are hidden with a piece of paper and students can't see them before the lesson starts.

Students are divided into 2 or 3 groups. At the beginning each group opens one of the cells by saying the letter associated to the column and the number associated to the row (example: A4). Teacher removes the piece of paper and reads out loud a written word. Then student can try to guess which word is the key word hidden in cell 5. If they don't know or guess wrong they miss a turn. Next group then opens a cell they want and try to guess the key words hidden in cells A5, B5, C5 and D5.

When students guess all the key words in cells A5 to D5 they can try to solve which word is hidden in the final cell below the chart. Words from cells A5 to D5 are also associated to final word. The team that guesses the final word is the winner.

After opening all the words in the cells, the key words and the final word teacher tells

the students the final word is the topic of their written assignment. Students have to write an essay (teacher decides how long) using all the words from the chart. This way teacher can tell in the students know the meaning of each word. This method can be used in all the subjects. It is very useful in mother tongue lessons or foreign language lessons but also in science, math, etc.



	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
<b>1</b>				
<b>2</b>				
<b>3</b>				
<b>4</b>				
<b>5</b>				

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# ICU - a toolbox for optimal teaching

**Name:**

Writing poems

**Skill:**

Writing

**Equipment:**

Dictionary

**How to do it:**

The teacher choose one or two words and the students have to say words that the last syllable rhymes with the words. We will choose the difficulty of the words depending on the grade the activity is done.

We will write all the words and we will do a list, with these words we will start the creative process, and we will try that the students tell us verses. We will write the verses on the blackboard and then each child will try to write its own poem.

This poem will be long or short depending on their age. When the students are older they can choose the words on their own, and then all together can find the words that rhyme and do the verses and poems freely.

The students can use the dictionary to look for words.





# Numeracy Methods



# ICU - a toolbox for optimal teaching

**Name:**

Quick to process

**Skill:**

Numeracy

**Equipment:**

No equipment needed.

**How to do it:**

Pupils are working in pairs. First the pairs are standing backs towards each other. They will jump facing each other at the same time. They need to react to whatever the other one is showing as quickly as possible. In mathematics both can show some number with fingers. The one who has higher number jumps up and one with lower number will crouch. Or both will sum up/multiply the numbers and say the result as quickly as possible.

You can vary the method in all subjects. In language learning the other one of the pair will show the word and the other one must say it in English, in biology one should say as if the animal is mammal, fish, bird, insect or reptile. etc.



# ICU - a toolbox for optimal teaching

**Name:**

"Silent Knowledge"

**Skill:**

Numeracy

**Equipment:**

Post-it papers

**How to do it:**

Teacher prepares the same amount of post-it paper as there are students in the classroom. E.g. the teacher writes different calculations on the papers (1:1; 3+2; 40-30; 50:2 etc).

In the classroom, teacher puts one calculation on each student's back. Students don't see their own calculation. Now the students get the task to calculate silently each other calculations and form a line in the order of the answers so that the smallest answer is on one side of the class and the largest is on the other side. The most important thing is that everyone has to be silent and move each other in the line as what they think is the correct order.

This method is motivating and can be used in different subjects and on different topics. In Maths it is also possible to order cubage, weight etc; in language lessons to practice alphabetical order; in science lesson to order the food chain etc.

Using this method it turns out that some students take in charge. Some students who are usually quiet can suddenly become leaders when using this method. It is also good for social competence.



# ICU - a toolbox for optimal teaching

**Name:**

"Zipp-Zapp-Zopp"

**Skill:**

Numeracy

**Equipment:**

No equipment needed

**How to do it:**

This method requires students to be focused. It is very dynamic method that makes students think. It is important to explain the rules clearly in the beginning.

There are two levels in the method. The first level is to get the students in the right motion.

In the first level the teacher starts by saying "Zipp" and clapping his/her hands in the way like sending the clap to a student. The student "accepts" the clap, says "Zapp" and claps his/her hands by sending the clap forward. Third student does the same by saying "Zopp." The Fourth student starts again with "Zipp." When students feel comfortable with clapping and saying "Zipp, Zapp, Zopp," it is OK to move on to the next level.

In the second level the students continue sending claps, but instead of saying "Zipp, Zapp or Zopp" the say a part of a calculation.

E.g. the first student sends his/her clap with "Two," the second says "times," the third says "seven," the fourth says "is," the fifth has to say the answer "fourteen" (two times seven is fourteen). If the answer is correct, then the next student, who received the clap with the previous answer, starts a new calculation with a new number. If the answer is wrong, everyone claps nine times in a row, saying "Zipp, Zapp, Zopp; Zipp, Zapp, Zopp; Zipp, Zapp, Zopp"

It is also possible to use this method in language lessons to compose sentences.



# ICU - a toolbox for optimal teaching

**Name:**

MATTO

**Skill:**

Numeracy

**Equipment:**

Charts with squares, paper and pencil for each pupil participating

**How to do it:**

The teacher decides on a mathematical issue, for example multiplication. The pupils write mathematical questions and also the answer. For instance: If a car has four wheels, how many wheels do 4 cars have? Answer: 16 They don't know the questions from the other pupils, it is all a secret. When the teacher has received all the questions, he writes all the answers (numbers) on the blackboard. It can for instance be 36 numbers (some numbers can pop up more times than one). The pupils have a chart (like bingo) with 6x6 squares, 36 altogether. They put the numbers from the blackboard randomly into the squares. Then the teacher or one pupil says one question. The pupil must find the correct answer and put a cross over the number. When they have 6 on a row, they shout MATTO (instead of BINGO) and have won the game.

For preparation: children can create a problem for homework, or half the class can make problems. Children seem to like it, and they have to be included in making problems and finding solutions. This method includes many skills and the children have to be creative.

# ICU - a toolbox for optimal teaching

**Name:**

Grinding method

**Skill:**

Numeracy

**Equipment:**

one board, some chalk

**How to do it:**

1. You give students a mathematical assignment (a base sentence). It should be adjusted to the students' abilities and interests.

Here is an example of a sentence: *Some tables were prepared for the class ceremony. 6 small tables for 4 children each and 4 big tables for 8 children each.*

2. The students are asked to make detailed questions (mathematical assignments) based on the sentence given by the teacher. S/he writes all the students' questions on the board.

3. The teacher and the students verify if the questions (mathematical assignments) make sense. If yes, they make mathematical operations and write them on the board. If not, they remove the question.

This activity is suitable for at least 3rd graders because they are able to read and write quite confidently. It can be used in group work (3-4 students in one group) to create big assignments: every group creates a problem, they change between the groups and make a competition. This activity can be adopted in a different way: a teacher gives students numbers and they make assignments. It can be useful for repetition and

practicing different math problems or given as a homework.





# ICU - a toolbox for optimal teaching

**Name:**

Maths through games

**Skill:**

Numeracy

**Equipment:**

Board game, dice, counters, cards with mathematical problems

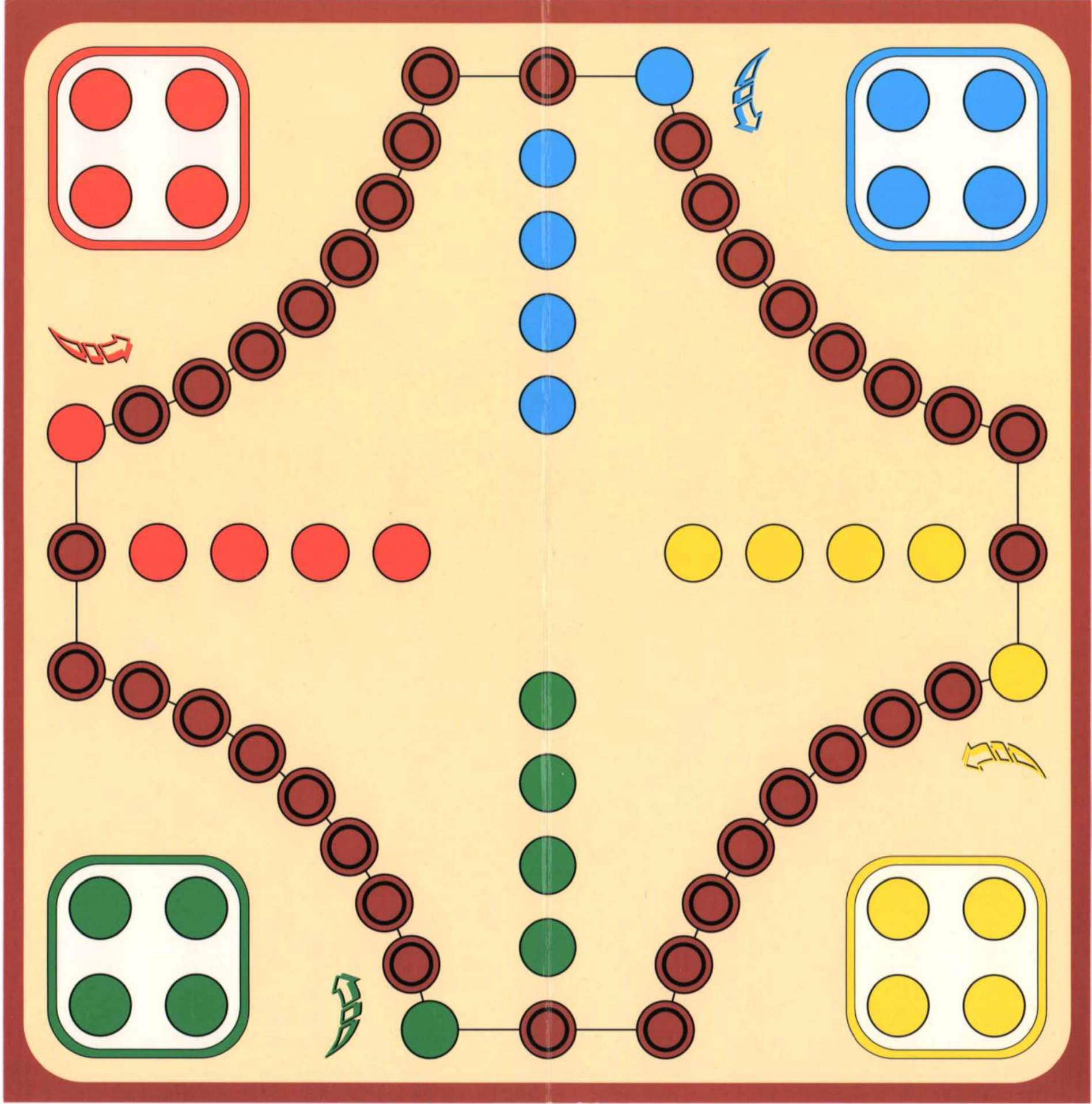
**How to do it:**

Teacher divides the students in groups of four. He gives them the board game with one dice and counters in four different colors to play the game. Also he puts in the middle of the board cards he prepared with different mathematical problems.

Student before tossing the dice has to take one card with the mathematical problem and give a correct answer to it. Then he can toss the dice and play. If he doesn't give the correct answer he loses the right to toss the dice and play. Student next to him then has to give the correct answer to the same mathematical problem to get the chance to toss the dice and play. Until the mathematical problem isn't solved no student can toss the dice and play.

Instead of cards with mathematical problems teacher can say the problem aloud so the game can run faster. Also the teacher can divide the class into four bigger groups and then they play the game and give answers to mathematical problems as a team.

This method can be used in different subjects. In foreign languages for repetition of words, in science, etc.



# ICU - a toolbox for optimal teaching

## Name:

Preparing a birthday party.

## Equipment:

We should provide to the students the prices of what they need to do in the party. A computer.

## How to do it:

Depending on the students age the activity could be easier or more difficult.

Students should prepare a birthday party. Each group decides how many kids will go, what they are going to eat and drink, where they will do the party. Then they should write all the information and tell us how much is it. You can also give them the money they can spend and they have to choose what they can pay with the money they've got.

The eldest can prepare an excursion. Then the teacher should give them all the information about the bus, the museum or whatever they need. Depending on the group they can also look for all the information they need.







# ICT Methods

# ICU - a toolbox for optimal teaching

**Name:**

ScratchJr

**Skill:**

ICT

**Equipment:**

Tablet (iOS, Android)

Computer(<https://scratch.mit.edu/>)

**How to do it:**

ScratchJr is an introductory programming language that enables young children (ages 5 and up) to create their own interactive stories and games.

In the process, they learn to solve problems, design projects, and express themselves creatively on the computer.

Children snap together graphical programming blocks to make characters move, jump, dance, and sing. Children can modify characters in the paint editor, add their own voices and sounds, even insert photos of themselves. Then use the programming blocks to make their characters come to life.

It can be used in all the subjects to summarize the learning with animation.



# ICU - a toolbox for optimal teaching

**Name:**

Coding without a computer

**Skill:**

ICT

**Equipment:**

Multilinks/blocks or anything you wish

**How to do it:**

This exercise is to do in pairs.

Take 10 exactly the same multilinks for each.(Or anything you want, for example geometrical shapes.)

Pairs turn their backs facing different directions. First student makes a shape with multilinks. They shouldn't see each other's work. Then they tell the other one instructions how to build the same without looking. Then check, if they succeeded and take turns.

This teaches you how to give exact orders needed in coding.



# ICU - a toolbox for optimal teaching

**Name:**

Lightbot: Code Hour

**Skill:**

ICT

**Equipment:**

a tablet or a computer

**How to do it:**

The goal is to learn system thinking and coding.

Lightbot is a programming puzzle game; it uses game mechanics that are firmly rooted in programming concepts. Lightbot lets players gain a practical understanding of basic concepts like instruction sequencing, procedures and loops, just by guiding a robot to light up tiles and solve levels.

Lightbot - Code Hour features 20 levels. The full version of Lightbot features 50 levels for when you want more of a challenge!

This version of Lightbot has been translated to 28 different languages! Just hit a flag icon corresponding to the language in the game!





# ICU - a toolbox for optimal teaching

**Name:**

Chatty pictures

**Skill:**

ICT

**Equipment:**

Tablet or computer (laptop or pc)  
App for iPad: "Adobe Spark" or "Vidra"  
App for Android: "Lensoo create"

**How to do it:**

This method is focused on teaching students how to find information, use it and save it. Using digital equipment is good to urge students to be interested in their school, their home and also the history of their country. It is important that learning is being done within cooperation, every student has a task. Students will learn how to communicate, to think critically, solve problems, cooperate and keep deadlines. These are all the necessary qualities for life.

1. Teacher introduces students a new project (e.g My hometown) and gives them different topics to do research.
2. Students form groups, divide tasks and compose a time schedule.
3. Students do research both in internet and books; they share what they have found with their group (using Google Drive or Padlet). Teacher will be in guiding role when needed.
4. Students write a conclusion about their research and share it with teacher (using digital equipment). Teacher will give feedback, corrects and gives advice.
5. Students will learn to use the app which they wish to use. They create digital material



(save information). Teacher is guiding, correcting when needed.

6. Students will make a presentation for other groups.

7. After presentation, teacher will have an interactive quiz (e.g. using Kahoot).

An example: <https://youtu.be/YZo7av8VM6M>

Method can be used in different subjects:

In Mother tongue, to give an overview of a book a student has read (<https://youtu.be/1aPZXJ4rpcs>)

In Foreign languages to revise the vocabulary or to improve speaking.

In Maths to learn a new topic or to revise it.

In Science to do a research

In Music to illustrate a song etc.

Examples for Spark Video:

[https://www.youtube.com/watch?v=7SauLz8WFAg&feature=em-upload\\_owner](https://www.youtube.com/watch?v=7SauLz8WFAg&feature=em-upload_owner)

<https://www.youtube.com/watch?v=YZo7av8VM6M>

[https://www.youtube.com/watch?v=JfU\\_r-rSH5o&feature=em-upload\\_owner](https://www.youtube.com/watch?v=JfU_r-rSH5o&feature=em-upload_owner)

Examples for Lensoo Create:

<http://create.lensoo.com/watch/bFtK>

<http://create.lensoo.com/watch/bEHy>



# ICU - a toolbox for optimal teaching

**Name:**

ICT quiz

**Skill:**

ICT

**Equipment:**

PC or laptop, Power Point

**How to do it:**

Teacher gives an assignment to a single student or a group of students. Student has to make a presentation of a lesson or a unit they did using Power Point. In the presentation student should make several slides that will be presented to other students as a revision of the lesson or the unit. At the end of the Power Point presentation student prepares a quiz for other students to see if they learned the key elements of the lesson or the unit.

This method can be used in different subjects. It is very useful for making a book report in mother tongue lessons or foreign languages lessons.



# ICU - a toolbox for optimal teaching

**Name:**

Clarisketch

**Skill:**

ICT

**Equipment:**

the application on tablets or smartphones

**How to do it:**

Clarisketch enables to create messages by combining speech, drawing and photos.

A teacher can download the application on <http://www.clarisketch.com>. This website is available in different languages and provides clear explanation.

Students can draw on an empty blank, a picture from your gallery or take a photo. At the same time they can provide your voice explanation or switch off the recording. After finishing the work they can also add more voice explanation or drawings. It is stored on smartphones or tablets and students can share it by sending the link to the sketch via email, Facebook, Google+, Twitter or other social networks. It can be played in any browser.

# ICU - a toolbox for optimal teaching

**Name:**

Mindomo

**Skill:**

ICT

**Equipment:**

Tablet/PC

Download application: MINDOMO or go to [www.mindomo.com](http://www.mindomo.com).

**How to do it:**

Mindomo is a mind map creator. Mind maps can be used to understand facts, issues and ideas revolving around a central topic. You can also create concept maps to see how multiple concepts are connected.

Photos and links can be added to the mind map. You can record your explanation directly in the mind map and create a presentation of your mind map. You can add notes for yourself to the mind map and print the mind map.

Sharing Mindomo mind map is easy! Teachers can create mind map assignments, which allows several pupils to work on a shared mind map or on his/her own individual one. The teacher can follow the students' progress from his/her own account.

Can be used in all subjects.



# ICU - a toolbox for optimal teaching

**Name:**

Kahoot!

**Skill:**

ICT

**Equipment:**

Tab, pad/mobilephone/computer

**How to do it:**

Kahoots are best played in a group setting, like a classroom. Players answer on their own devices, while games are displayed on a shared screen to unite the lesson – creating a ‘campfire moment’ – encouraging players to look up.

Social learning promotes discussion and pedagogical impact... whether players are in the same room or on the other side of the globe! After a game, encourage players to create and share their own kahoots to deepen understanding, mastery and purpose. Please go to [www.getkahoot.com](http://www.getkahoot.com) to learn more. It is great fun! Check out youtube as well. There are videos of how to do it.



# ICU - a toolbox for optimal teaching

**Name:**

That Quiz

**Skill:**

ICT

**Equipment:**

Computer

**How to do it:**

That quiz is an international platform in several languages. Where you can find different types of activities: math, language, geography and science.

You can register as a teacher and then you can create a class with your students. When you create the class the program generates a code to each student. You have to give the code to every student because they can use it to get in their session.

Once you've got it you can edit the activities that the students should do. They could be shorter or longer, you can program if they have to do it in a special time or they can take their time, if the activities are only related for example in algebra or there are fractions too.

When the students solve the activities all the information about their score are recollected in a table in the teacher's session. So, you can know what they have done, in which activities they have got the best marks...

It is a very interesting web page. Students love this activities they can do it at home as homework or at school as a class activity. It increases students' motivation.





# ICU - a toolbox for optimal teaching

## Name:

CODE <https://code.org/learn>

## Equipment:

Computer

## How to do it:

Code is an international platform in different languages. This one is only to progress in the fashionable world of the Programming language.

In this platform you have to register as a teacher and then you create your class. This is a game where the students are progressing. At the beginning the commands are very easy. The first step is for students who are not able to read. But little by little it gets complicated.

Students enjoy this web a lot. It is a subject in which they are really interested and without any effort they progress.

It helps to develop some special mechanism in our brain.



## CONCLUSION

This has been an interesting journey to try to find the best tools for teaching basic skills. The main thing we learned is that we all can learn from each other and it is very useful to find new ways to share teaching methods. All the discussions before and after testing the methods were inspiring and helped us to take even our own methods to the next level with ideas from other educators from different corners of Europe.

We also feel that it was necessary that same partners met several times during the two-year project. It helped us go deeper in getting to know each other, our schools and schooling systems in each country. We found differences and similarities but the main thing we found was the European dimension. It was good to learn that the methods can be altered according to the needs of a school and they could be used in all the countries even though sometimes the circumstances were very different. One thing we had in common was the desire to develop in teaching and the project gave us a good opportunity to share our passion and knowledge with the European colleagues! We can warmly recommend this type of project to other school from all over Europe.

