

**CARMA**

Non-formal learning for student motivation



# CARMA Toolkit

***A step-by-step guide for implementing  
collaborative learning to increase student  
motivation and participation  
(practical teaching resources)***

[www.carma-project.eu](http://www.carma-project.eu)



Co-funded by the  
Erasmus+ Programme  
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**Editors:**

Ruta Grigaliunaite, CESIE, Italy

Rosina Ulokamma Ndukwe, CESIE, Italy

**Co-Editors:**

Mathieu Decq, Pistes Solidaires, France

Magali Lansalot, Pistes Solidaires, France

**Contributors:**

Ovagem Agaidyan, Verein Multikulturell, Austria

Gizem Agyuz, DOGA Schools, Turkey

Danny Arati, DOGA Schools, Turkey

Klaudia Binna, Verein Multikulturell, Austria

Dima Bou Mosleh, University Colleges Leuven-Limburg, Belgium

Linda Castañeda, University of Murcia, Spain

Pedro Costa, INOVA+, Portugal

Ömer Düzgün, Verein Multikulturell, Austria

Isabel Gutiérrez, University of Murcia, Spain

Karine Hindrix, University Colleges Leuven-Limburg, Belgium

Ana Leal, INOVA+, Portugal

M<sup>a</sup> Del Mar Sánchez, University of Murcia, Spain

Irene Pilshopper, Verein Multikulturell, Austria

Marta Pinto, INOVA+, Portugal

Rosa Pons, University of Murcia, Spain

Paz Prendes, University of Murcia, Spain

Serkan Solmaz, DOGA Schools, Turkey

Zuhal Yılmaz Dogan, DOGA Schools, Turkey

**Graphic Design:**

CESIE



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# Glossary of terms

**EC**

European Commission

**ESL**

Early School Leaving

**CL**

Collaborative Learning

**NFL**

Non-formal Learning

**NFL Expert**

Non-formal Learning Expert

**RMA**

Reciprocal Maieutic Approach

# 1

## Introduction

# Introduction

*“The CARMA project is not about converting formal into non-formal education, but it is about taking advantage of the techniques of non-formal learning so to enrich and improve the formal education approach. Although the techniques are non-formal, these learning approaches continue being formal, because this is important for our students.” – The Research Group in Educational Technology, University of Murcia.*

**Y**ou may have heard the statement, “my students are so unmotivated!” and you may have read so many times about the importance of motivation in education. It is apparent that motivated students retain information easier, keep their attention and are excited to participate and learn. What can we do to change the statement to “my students are so motivated!”? How can we support each student in reaching his/her full potential, increasing their achievements and even reducing the risk of early school leaving?

**Do you want to say, “my students are so motivated”?  
If yes, you have the right  
Toolkit in your hands!**

Have you heard about **collaborative learning**? It has been gaining its

popularity among motivated teachers. Collaborative learning methodologies transform traditional frontal classroom or teacher focused classroom environment into a student or a learning-centred environment.

Collaborative learning is a pedagogy of interaction where learners are responsible for their own actions and at the same time responsible for the actions of other learners within the group. Within this approach, students work together under teachers’ supervision, to help each other understand concepts, solve problems or create projects and products and there is a sharing of authority and acceptance of responsibility among group members for the group actions.

Collaborative learning shifts the responsibility for learning away from the teacher as the expert to the student.

The teacher, once the task or activity is set becomes a moderator or facilitator of the process and has to create an environment in which the students can learn together as a group and joint problem solving.

In a collaborative learning setting, students are actively involved in the learning process and more likely to become interested in learning and participating in school, therefore student maintenance is increased. Such approaches are effective in improving student engagement and achievements for disadvantaged students who are more at risk of low achievement and early school leaving.

### 1.1 What is the CARMA Toolkit?

**T**he CARMA Toolkit is a result of the Erasmus+ project “**CARMA – RMA and other non-formal learning methods for Student Motivation**”, and is a step-by-step guide to implementing collaborative learning practices with students and to transform classroom practices using non-formal learning techniques.

The CARMA project, coordinated by CESIE, was a 34-month initiative (January 2016 – October 2018) funded by the Forward-Looking

Cooperation strand of the Erasmus+ Programme<sup>1</sup>.

Over the past decade, the European education system and institutions have made significant efforts to innovate and reform education, by establishing key priorities for school education across European countries as part of the Education and Training Strategic Framework (ET 2020)<sup>2</sup>. These priorities include reducing the rate of early school leaving (ESL) in the EU to less than 10% and reducing the share of 15-year-olds under-skilled in reading, mathematics and science to less than 15% by the year 2020<sup>3</sup>.

Responding to these core challenges, a consortium of organisations from Italy, Spain, France, Portugal, Belgium, Turkey and Austria intended to contribute to reduce the rate of ESL and the share of young people under-skilled in reading, mathematics and science.

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1 The European Union’s Erasmus+ programme is a funding scheme to support activities in the fields of Education, Training, Youth and Sport <https://eacea.ec.europa.eu/erasmus-plus>

2 The Strategic Framework for the European Cooperation in Education and Training (ET 2020) [http://ec.europa.eu/education/policy/strategic-framework/index\\_en.htm](http://ec.europa.eu/education/policy/strategic-framework/index_en.htm)

3 Eurostat, EU labour force survey 2018, source - According to Eurostat’s data, an average of 10.7 % of young people (aged 18-24) in the EU-28 were early leavers from education and training.

**CARMA has made a positive contribution to the development of more effective policies to support learners' inclusion and reduce the risk of ESL.**

The CARMA project aimed to develop, test and introduce at schools non-formal learning techniques as a collaborative learning strategy to innovate school culture and transform classroom practices. In consequence, the Reciprocal Maieutic Approach (RMA)<sup>4</sup> a popular dialectic methodology of research and self-analysis tested by sociologist Danilo Dolci was adapted and applied within CARMA to respond to the needs of the school education system, specifically for providing a collaborative method of assessing the learning progress after facilitating the use other non-formal learning techniques in the classroom.

## 1.2 Who is this Toolkit for?

**A**re you a secondary school teacher? Then the CARMA Toolkit is the Toolkit for you! It is a resource aimed to offer you a step-by-step guide on how to implement collaborative learning activities to increase students motivation, participation

<sup>4</sup> Dolci, D. (1996). The Reciprocal Maieutic Approach (RMA): <http://en.danilodolci.org/reciprocalmaieutic>

and raise achievement levels.

This Toolkit addresses the specific needs of lower secondary and secondary school teachers working with students in the age range of 11 to 16 years old in general, wanting practical ideas on how to introduce collaborative learning in the classroom. In particular, when teaching in a complex environment to learners identified as disadvantaged, low achieving and at risk of early school leaving. More importantly, this Toolkit aims at giving you the tools to make the collaborative learning environment a reality in schools!

**The aim of CARMA was to innovate school culture and transform classroom**

In using this Toolkit, we strive for all teachers to be equipped with the right resources, step-by-step support and integrated method of learning to bring about change at classroom level through the adoption of an inclusive approach, which fosters interaction, creativity and reciprocal learning between teachers and learners, which will leave a lasting positive impact on the wider school environment.

**We can support school communities to become collaborative learning communities!**

### 1.3 What is included in this Toolkit?

**T**he Toolkit is intended to be an effective guide that will support you as teacher to enrich your classroom environment, build effective relationships with your students, help to increase their motivation and participation, and foster their engagement in the learning process.

In this Toolkit, you will find different **practical teaching resources for implementing collaborative practices** that can be used in the classroom and alongside various subjects during the learning process.

The variety of the non-formal learning techniques presented in this Toolkit will support you in elaborating collaborative practices in the classroom by explaining how to implement the activities from preparation to delivery. For each technique, we explain the expected outcomes and added value of using the techniques in connection to enhancing learners knowledge, skills and competences and offer hints and tips in the practical application of each technique.

The Toolkit it intended to be an effective guide that will support you as teacher to enrich your classroom environment, build effective relationships with your students,

help to increase their motivation and participation, and foster your students engagement in the learning process.

If you are interested to know more about the CARMA project and RMA, would like to read about guidelines for establishing collaborative practices in your classroom, find out about the development of our learning outcomes for teachers and students for collaborative learning and use our competence assessment model to assess your skills development when you implement non-formal learning techniques in the classroom, then take a look at the full version of the Toolkit.

*The full version of the Toolkit with supporting resources for delivering collaborative learning created and tested during the project by teachers is available online on the CARMA website at:*  
*<http://carma-project.eu>*

This Toolkit aims to spread the CARMA approach throughout Europe and the lessons learned from the experimentation stage within schools. It is a source of inspiration for those working in school education to apply the methods and activities of our collaborative learning strategy to innovate school culture and transform classroom practices. Furthermore, we hope you can achieve the same or similar results we have achieved

in adapting and testing non-formal learning techniques with 28 teachers and with more than 3,000 students across different schools in Italy, Spain, France, Portugal, Belgium, Turkey and Austria.

**So why not give it a try? Through YOUR own motivation, you can motivate others!**

# 2

## **Delivering Collaborative Learning in the Classroom**

## 2 Delivering Collaborative Learning in the Classroom

**T**eaching subjects and grade levels, however we understand that teachers need the resources and knowledge to put collaborative learning into practice and make collaborative learning a reality in the classroom.

In this section of the Toolkit, you will find a selection of **15 non-formal learning techniques for implementing collaborative learning** that can be used in your classroom. The techniques included here have been adapted, analysed and tested by 28 teachers of various subjects in Italy, Spain, France, Turkey, Belgium, Portugal and Austria, who have been involved in the CARMA project. These techniques have been introduced into different school learning environments across the different countries and have been directly taught by teachers to their students ranging from 11 to 18 years old.

The techniques are designed to engage students in larger groups, but they also work well in seminars and workshops. You can choose the techniques based on the way you want to work with the learners as

well as depending on which skills of your learners you want to stimulate.

### • Colour coded techniques

We have used 2 different colours to separate the techniques that don't require any specific prior preparation from those that require a) prior analysis b) space or c) materials preparation. Look for it throughout the Toolkit for your quick reference!

No  
preparation  
needed

Preparation  
needed

### • Pick the technique

The 15 non-formal techniques selected all aim to increase **student engagement, motivation, cooperation and collaboration**, and to achieve and assess **specific learning outcomes and the impact** from collaborative learning (see Chapter 5).

**Increase student  
engagement, motivation,  
cooperation and  
collaboration!**

Some of the techniques focus on different elements: aim to stimulate visual expression of learners, foster communication skills, encourage self-reflection, active thinking and problem solving or include the use of technologies. For your easier guidance you can check the grid below and pick the technique that fits best to your classroom needs.

TECHNIQUE	VISUAL EXPRESSION	COMMUNICATION	SELF-REFLECTION	THINKING & PROBLEM SOLVING	TECHNOLOGIES
<b>1</b> The Visualisation/ Creative Technique	✘	✘	✘		
<b>2</b> Learning Through Storytelling	✘	✘		✘	
<b>3</b> Appreciative Inquiry in Learning (AI)		✘		✘	
<b>4</b> Petal Debate		✘	✘	✘	
<b>5</b> Whole Brain Teaching (WBT)		✘		✘	
<b>6</b> Constructive Controversy		✘		✘	
<b>7</b> Jigsaw		✘	✘	✘	
<b>8</b> Group Investigation (GI)		✘	✘	✘	
<b>9</b> The Box of Emotions		✘	✘		
<b>10</b> Open Space Technology		✘		✘	
<b>11</b> Crossover Learning		✘		✘	
<b>12</b> Co-operative Learning in Multi-Cultural Groups			✘		

<b>13</b> Learning by Coding		✘	✘	✘	✘
<b>14</b> Mind Map	✘	✘		✘	✘
<b>15</b> Reciprocal Maieutic Approach (RMA)		✘	✘	✘	

Through these techniques tested in the classroom, the teachers of the CARMA project observed their learners’ reactions, their level of participation and the effectiveness of the chosen non-formal technique on increasing students’ motivation and achievement levels.

*“I had chosen one of my classes to try the non-formal educational methods with them. The choice had fallen, not by chance, on a classroom from the technical tourism school that had been experiencing some problems. It was a class at risk of drop-out, where conflicting relational dynamics emerged immediately and where many of them had failed, so I thought it might be the appropriate class to test a couple of non-formal learning techniques in order to motivate them and make them grow as a group.” - Angelo Pellegrino, teacher, Italy*

*“I had to face a complex situation with some colleagues. They were reluctant and really not convinced by what I was trying to implement. I took the decision to contact all of them explaining what I was doing since I was really convinced and motivated by non-formal learning activities. In the end, most of them came back to me and decided to join the adventure and they are now using several methods!” - Fabiene, teacher, France*

**Read, analyse, adapt, test, use, integrate into your daily teaching, observe, evaluate, have fun!**

**To meet your students’ particular needs and interests, pick one method or test them all – it’s up to you.**

**As already mentioned, the most important thing is to be motivated!**

The background is a white surface covered with numerous overlapping circles of various sizes. The colors of the circles range from light teal and pale pink to deep red and dark purple. The circles are semi-transparent, creating a layered, bokeh-like effect. The word "TECHNIQUES" is centered in the middle of the composition.

# TECHNIQUES



## TECHNIQUE N° 1

# The Visualisation/ Creative Technique

*"I believe that visualization is one of the most powerful means of achieving personal goals." - Harvey Mackay (2012)*

### Description

The Visualisation technique is one of the biographical methods to work with during a seminar, workshop or counselling session. The Visualisation technique uses all kinds of creative visualising expressions like drawing and painting, modelling sculptures and collages.



### Preparation

The teacher should have some experience in facilitating or guiding groups, or competences in education and creative expression, but no special preparation is required.

## Step by Step

1. Ask students to draw a picture or create a clay sculpture with a specific topic. For example: Draw a picture about your education career or create a clay sculpture while being aware of your education and learning.
2. Ask students to mark 3 important events in their learning journey with different colours.
3. Afterwards in the group, ask each learner to describe their drawing and the way they created it. The other students should reflect and give feedback. It has to be made clear that the person who gives feedback talks about his/her own perception/impression and not about what the creator meant.
4. At the end of the exercise, discuss what the students felt, what they experienced and what they learned.

## Learning Outcomes

### Knowledge

The students learn about their biographical experience connected to groups and communities by reacting to each other and finding interconnections.

### Skills & Competences

The students build communication and reflection skills, and allow changes in the perspectives and perceptions by bringing clarity and awareness. They develop team-working competences.

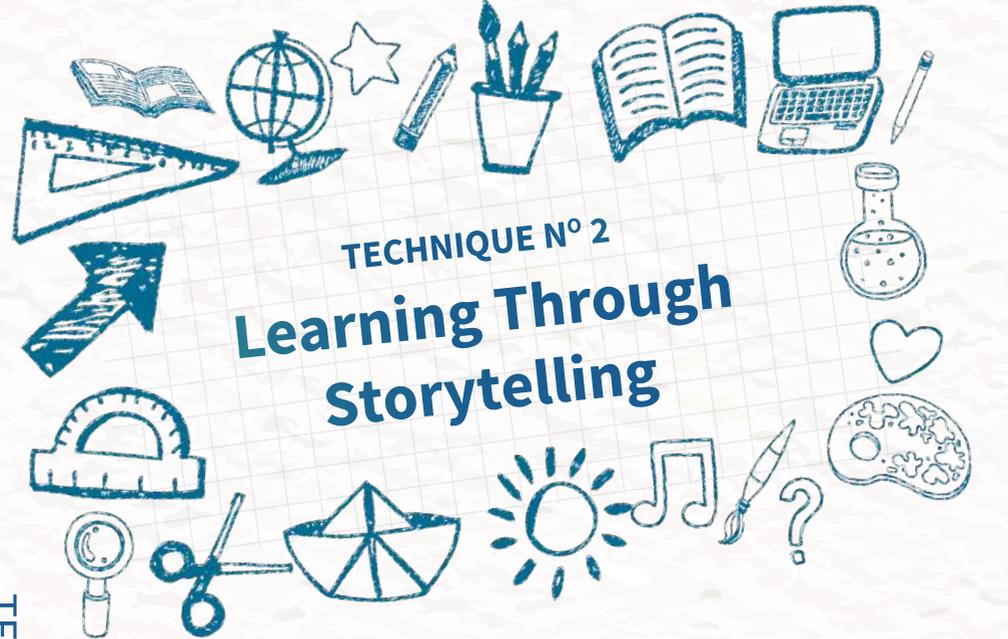
### Hints and Tips

The teacher should initiate the working process, give impulses, observe progress of individuals and of the group, support group development. The exercise can be adapted for different subjects, such as history, literature, geography, etc.

*“For me, it has always been more important to work on processes rather than on the content, because the latter, thanks to the internet, has become easily accessible to us, while the capacity to critically assess the information still has to be developed.*

*For this reason, my aim is to support students to acquire or refine such capacities with the support of non-formal methods.”*

*- Barbara Pellegrino, teacher, Italy.*



## TECHNIQUE N° 2

# Learning Through Storytelling

*“Storytelling is the most powerful way to put ideas into the world today.” - Robert McKee (2015).*

### Description

Learning through storytelling refers to a process in which learning is structured around a narrative or story as a means of “sense making”. It involves the use of personal stories and anecdotes to engage students and share knowledge.

### Preparation

Stories have to be adapted to the teaching topic. If the facilitator does not have experience in storytelling, the teacher has to practice storytelling in order to reach the desired goals.



### Step by Step

1. Create a relaxed and informal atmosphere (e.g. students sitting in a circle, semicircle, indoors or outdoors).
2. Draw a grid on the board and then put one word in each box relevant for your subject and thought in advance. You can make your story grid any size you want but the bigger the grid, the more complicated the activity will become.
3. You can recycle vocabulary that students are currently working on in class in the story grid, but to ensure that they can create a good story you should include a mixture of words, such as people and place names, verbs, nouns, adjectives etc., and it is usually good to throw in words that might give the story a bit more spice, such as crime, love, hate, theft, broken hearted, travel, treasure, accident, etc.
4. Explain to the students that the aim of the activity is to create a story using all the words in the story grid. Students can use any vocabulary or grammar they want to but they have to include all the words in the story grid.
5. At the end of the activity the class could vote on the best stories in different categories, for example the most creative story, the most interesting story, the funniest story, the best-told story etc. This activity can also be easily developed into a creative writing activity, either individually as homework or as pair or group-writing practice.

## Learning Outcomes

### Knowledge

The students gain knowledge about the relevant topic through a new perspective.

### Skills & Competences

The students learn how to use the concepts they have been taught in other situations. They increase their pluralistic thinking, presentation, active listening and public speaking skills.

The students increase empathy, the ability to relate to other people and strengthen their intra and interpersonal competences.

*“My students have acquired new skills.They learn how to work in groups to achieve their tasks and feed their creativity to write their stories. Starting the lesson with brain-storming, then clustering the topics with connected themes has become a routine and they can easily regulate their learning.”*

**- Didem Sümbül, teacher, Turkey**

*“Storytelling makes them able to translate their fantasies into a clear and logical story, it increases their confidence to talk before the group.”*

**- Kim Vandewijngaert, teacher, Belgium**

### **Hints and Tips**

Another option is to get students to create story grids for each other to use. Get the students to create their own stories in pairs or in small groups and once they have created their stories, they can retell their story to you, the rest of the class or to the other groups.

The teacher has to think about the subject (e.g. history, geography, literature, etc.) and link it to relevant words.

*“Using their own chosen systems and visuals has been an encouraging experience for the students. It makes my teaching better and more motivating. Furthermore, the students internalise their tasks. They were excited and cheerful while contributing to the work of each other in classroom activities.”*

**- Didem Sümbül, teacher, Turkey .**



*“These courses offer guidelines for reaching our full potential as complete human beings in all our dimensions, thereby enabling us to develop the courage, wisdom and leadership qualities required to constructively contribute towards building a culture of peace.” - UNESCO (2002) Sourcebook for Facilitators, Learners and Tertiary Level Instructors.*

### Description

Appreciative Inquiry in Learning (AI) technique is based on the assumption that when you focus on problems, actions result in a vicious circle, with energy and engagement spiralling downwards. The technique is based on 4-D Cycle: **Discover** (valuing, “What gives life?”), **Dream** (envisioning, “What might be?”); **Design** (dialoguing, “what should be?”), **Deliver** (innovating, “What will be?”).

### Preparation

The students group can be small (2 people) or larger (6 people). Small group work for the distinction of theme, discussion about the ways of presenting to larger group, preparing the presentation.

## Step by Step

1. Choose a positive topic as the focus of inquiry, frame the topic in positive terms, e.g. a lesson that went well, was interesting, where the students had the impression that they picked up something, etc.
2. Create questions to explore the topic: Questions should be positive “What went well, can you explain your success in this specific case”, etc. Questions should be prepared well and to the point so that the interview can follow a structured and specific pattern.
3. Use the questions to conduct interviews or share stories about the topic. Can be used in pairs, interviewer and interviewee change positions. They use the questions prepared and focus on the positive. Inquiry continues in groups. The learner can become an interviewer.
4. Locate themes that appear in the stories. What combines success, positive sentiments concerning the topic, etc.
5. From these themes, ask the students to create a shared image for a preferred future, i.e. a provocative proposition. This may be presented literally, in drawing, in mind maps, PPT, metaphors, etc. at the group’s choice. The presentation is done by the small group to the larger group.
6. Explain to the students that they have to find innovative ways to create that future, i.e., strategic intentions. The method should be SMART (Specific, Measurable, Acceptable, Realistic, Time-bound). The group has to share a common history and can start to set goals for the future.
7. Use the provocative proposition and strategic intentions to guide the students. It could do no harm to interrupt habit patterns in thinking about future by getting beyond comfortable competency and pushing the group to be as innovative as possible.

# Learning Outcomes

## Knowledge

The students gain knowledge on a certain topic and this increases their motivation, curiosity and creativity to explore the topic more deeply.

## Skills & Competences

The students enhance communication skills, such as public speaking, active listening, creativity, interpersonal and intercultural communication, social skills such as empathy, cooperation, assertiveness, self-control, teamwork and participation.

The students develop communication, co-operative learning, conflict resolution competences.

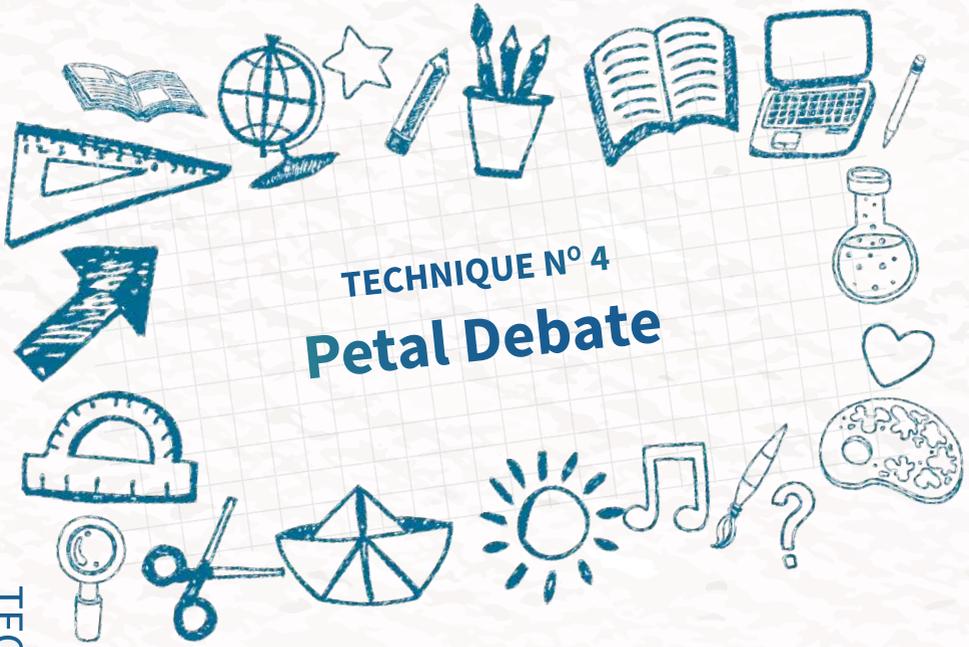
*“In my opinion, recognising the challenges and overcoming them was the most effective outcome in the classroom.”*

*- Robert Westreicher, teacher, Austria.*

## Hints and Tips

The facilitator has to be creative and skilled in positive communication and phrasing, well informed about the topic of the inquiry.

Learning materials might be needed for the presentation of the topic.



## TECHNIQUE N° 4 Petal Debate

TECHNIQUES

*“For good ideas and true innovation, you need human interaction, conflict, argument, debate.” - Margaret Efferman (2015)*

### Description

Petal Debate methodology facilitates decision by developing, in small groups and plenary, a “compelling argument” and a constructive debate.

### Preparation

Time is needed to decide topics and to arrange a training room:

- To arrange tables in a circle, they are petals of one flower and at the centre there are chairs (same number as tables).
- To post colourful paper to visualise different topics and keywords.
- To arrange a paperboard to draw and write the main ideas of the central discussion.

# Learning Outcomes

## Step by Step

1. Divide the group into smaller groups and ask them to sit around each table.
2. Announce the topic relevant for your subject and write it on each table.
3. Tell students that they have 15 minutes to discuss about their point of view, in what they agree or disagree with the topic or it can be an "initial proposition". Tell them that they must determine concrete ideas, solutions, and possible changes to make this proposition acceptable for everyone around their table.
4. Ask each group to choose one "ambassador" per table and they have to come to the flower's centre and, during 10 minutes to share their statement they agreed in a previous group and then debate.
5. Explain students that the centre has to find a common proposition with concrete changes. If the proposition is not common, ambassadors come back to their "petal" and they negotiate their proposition. Tell that other students have to listen actively, and they can note their reactions and new propositions.
6. At the end of the session ask one representative from all "ambassadors" to share with the group the final proposition/ decision and ask for a feedback from a group on the activity.

## Knowledge

The students enhance knowledge, understanding and strategies in dealing with heterogeneity and diversity in groups, accommodating multiple perspectives and views. Peers learn to build a "compelling argument", to resume a multiplicity of points of views, ideas, reactions about the topic to express one speech.

## Skills & Competences

The students' develop communication skills: active listening and capacity for clear expression, cross-cultural communication.

The students' develop communication, reflection, cognitive and relational/ cultural competences. Moreover, the students' learn to develop their opinion with the diversity of others point of view.

*“The majority of the students really liked this way of working. They had already done group work in other subjects but they underlined the fact that debates were taking place was a real asset and bringing a lot.”*

**- Fabiene, teacher, France**

*“All students actively participated in the lesson, though with a different engagement between each of them. Nevertheless, everyone has given a personal contribution to the activity. Eventually I was asked:*

*“Professor, it was an interesting session. When will we repeat it?”*

**- Teresa Cirivello, teacher, Italy**

*“At the end, my students discovered that to reach an agreement is easier than the thought at the beginning! Thanks to this group work, the relations between students improved.”*

**- Isabel Palao, teacher, Spain**

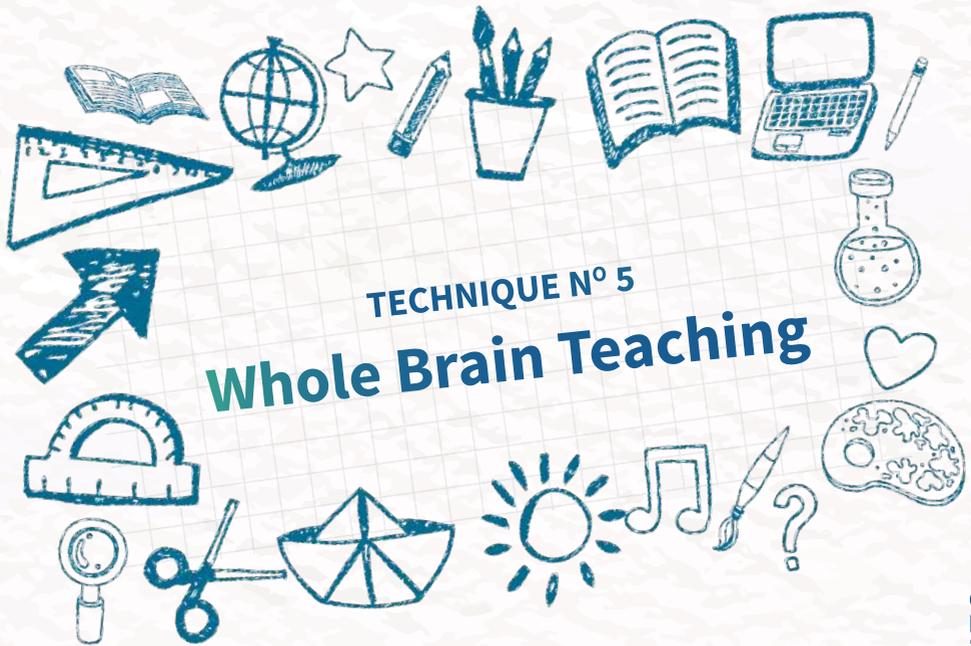
### **Hints and Tips**

The teacher has to provide an introduction to the method, he/she has to facilitate a brainstorming and to be the timekeeper.

It can be really interesting to add graphic facilitation during the debate in the centre and to collect and capitalise on ideas through drawing.

*“I added techniques during the Petal Debate to increase the participation of every student during the interaction (e.g. a card or matches or to let a student be a visual moderator).”*

**- Lisa Verhelst, teacher, Belgium**



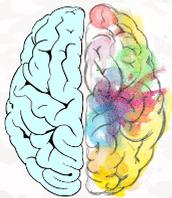
## TECHNIQUE N° 5

# Whole Brain Teaching

*“Teaching is a performing art.” - Chris Biffle (2015)*

### Description

Developed by Chris Biffle (2015), Whole Brain Teaching (WBT) is a system for classroom management and also a teaching technique that seeks to establish and strength relations between the right and left side of the brain... WBT is a research-based technique that uses chants, repetition, movements and gestures that keep the learner interacting with lessons.



### Preparation

If the teacher has no experience in WBT, additional research and preparation might be needed to fully understand WBT and to practice it.

### Step by Step

1. Class – Yes. Begin the class by saying “class” any way you like, and in turn, the class is responsible for mimicking your voice by responding yes. Therefore, if you say, “class, class, class, classy class!” The class

must respond: “yes, yes, yes, yessy, yes!” Once this step has been accomplished, move on to the next step.

2. Classroom Rules. Before beginning the actual “informative” part of each lesson, go over the five classroom rules with the entire class. This is to ensure that everyone understands the rules, but it will also help you in the end, if a learner is not following rules. The rules and gestures are as follow:
  - Follow directions quickly!
  - Raise your hand for permission to speak
  - Raise your hand to leave your seat
  - Make smart choices
  - Keep your dear teacher happy!
3. Teach – OK. This is the informative part of the lesson. Before beginning divide the class into two groups: 1’s and 2’s, in each pair you will rotate each time. Then begin to teach small sections of information, while incorporating gestures, songs, movements and chants. When you have finished a small portion of information say to the class “Teach” and the class responds “OK!” Taking turns, the students teach each other, mimicking the “lesson” taught. During this time, observe the students’ comprehension. If you are not convinced that the students understand the lesson, repeat this process. Otherwise, move to “class-yes” and begin another short lesson.
4. Scoreboard Game. Depending on the subject topic, you can use different scoreboard games, e.g. Students may receive a point when they perform a procedure well or they receive smileys or frowns in return for procedures performed well or procedures performed badly.
5. Hands and Eyes. This step is used at any point during the lesson when you want students to pay “extra attention” to what you are saying/doing. To begin this process say, “Hands and Eyes!,” and the students respond by mimicking your words and movements.
6. Mirror. Similar to “Hands and Eyes,” mirror allows you to gain control of the classroom as well as have students mimic your motions and speech. This is the main part of the lesson where you are expected to contribute with your own “silliness” and movements to the lesson.
7. Switch! This step is to be used with the “Teach-OK” step, while students are teaching. It is imperative that the same students do not act as teachers every time. Therefore, in order to get every learner involved in the lesson, you will direct the students to “Switch!,” the students will respond by saying “switch” and the teacher of the group will rotate.

# Learning Outcomes

## Knowledge

The students enhance their knowledge on particular topics through the engagement, positive interaction with their peers and fun learning experiences.

## Skills & Competences

The students increase their communication and problems solving skills. They enhance team-working competences, and they also learn how to turn an instruction into an action.

*“NFL techniques reinforce the communication among students, the techniques involve and engage students more during the lessons as they try to acquire knowledge. When I implement the new techniques, not only do my students enjoy new learning experiences, but I also manage to improve my teaching competences.”*

**- Serkan Solmaz teacher, Turkey**

## Hints and Tips

The teacher is an art performer.

Each day while using WBT, you can begin a new scoreboard, as well as integrate your own teaching style and flair into the lessons.



## TECHNIQUE N° 6 Constructive Controversy

### TECHNIQUES

*“Constructive controversy is an instructional procedure that is designed to create intellectual conflict among learners and that meets these criteria... By structuring intellectual conflict in a lesson, instructors can grab and hold learners’ attention and energize learners to learn at a level beyond what they may have intended.” - Johnson & Johnson (2009)*

#### Description

Constructive Controversy is a cooperative learning method that fosters students to take on and argue for, alternately, the two sides of a controversial issue and ultimately come up with a balanced opinion about that issue. In this sense, the purpose of this teaching approach is to encourage students to take into account all sides of a particular topic before expressing a final opinion and to reach consensus.

#### Preparation

If the teacher has no experience in Constructive Controversy, additional information and preparation might be needed to fully understand the Constructive Controversy and practice it. The teacher has to organise the groups.

## Step by Step

1. Provide background information (lecture, text materials).
2. Assign students to groups. The class is divided into small groups of four students minimum. Then each group is divided into smaller sub groups e.g. pairs. Each pair is assigned one position, pro or con. Each pair receives materials supporting one of two sides of issue (connected to the topic). Pairs read material, discuss together the most salient points of the argument, and plan how to present their position to the other pair. Near the end of the period, pairs are encouraged to compare notes with pairs from other groups who represent the same position in order to revitalise the discussion.
3. Tell to the group that all pairs should present their position. Each pair makes their presentation to the opposing pair. When the first pair has given the arguments supporting their point of view, the other pair presents their reasons supporting their opposing position. Each member of the pair should participate equally in presentation. When a pair is presenting, the other pair should remain silent and take notes. Once reasons have been presented by each pair, students can ask for clarification anything they do not understand.
4. Open discussion for students. Students should debate back and forth, trying to convince the other pair that their point of view is correct or better.
5. Tell to the group that pairs should change assigned positions and prepare to present the new side of the issue. In this step, they are not given presented material supporting that side; they can use their own notes, but should not see the materials developed by the opposing pair. This supports students to view the issue from the opposite position. In this step, pairs should prepare their arguments in the same format as Step 2, but now they should be presenting the new position assigned to the controversy.
6. Explain that students should repeat Step 3 with their newly assigned position.
7. Explain to students that the final step is to reach consensus. Back in their groups, students must come to a consensus and formulate their opinion on the topic, based on evidence from both sides of the issue.
8. After the activity, groups must do what is called group processing. They must reflect and describe what member actions have been helpful and not helpful and make decisions about what behaviours to continue

or change. Therefore, you must allow sufficient time for it to take place, maintaining learner involvement in processing, and reminding students to use their teamwork skills during processing.

## Learning Outcomes

### Knowledge

The students gain the basic knowledge about coaching and beliefs system and identify their limiting beliefs about a certain situation or issue.

### Skills & Competences

The students develop skills to generate a creative thinking together. The students develop transversal competencies: communication, cultural, social, interpersonal/relational competences, and personal autonomy.

*“They really appreciate some time to debate with a few colleagues. This kind of opportunity is very important because in this group there are some kids that find it very hard to express themselves in the presence of some colleagues. In small groups, they feel more freedom to do so.”*

**Elisa Seixas, teacher, Portugal**

*“There was a noticeable increase in the ability of the students to express themselves... They were quite eager to express their feelings and thoughts.”*

**- Mustafa Evren, teacher, Turkey**

### Hints and Tips

A good topic for constructive controversy would be a topic that is relevant to the curriculum that has two clear positions, that is interesting for the students and, finally, a topic which instructor or students can locate a variety of resources and information.



## TECHNIQUE N° 7 Jigsaw

*“We are enthusiastic about the method because it works; not only does it open the door to warmer, closer friendships within and across ethnic boundaries, it has also proved effective at raising the self-esteem of learners while improving their performance and increasing their liking for school and their enthusiasm about learning.” - Elliot Aronson & Shelley Patnoe (2011)*

### Description

The Jigsaw concept has been developed by Elliot Aronson and is a method of cooperative learning that encourages listening, engagement and emphasises the importance of cooperation (by giving each member of the group an essential piece of information which is necessary for the completion and understanding all material). It also encourages shared responsibility within groups and the success of each group depends on the participation of each individual in completing their task.

### Preparation

If the teacher has no experience in Jigsaw, additional research and preparation might be needed to fully understand the methodology.

## Step by Step

1. Introduce the topic to students.
2. Assign students into heterogeneous home base groups (4-5 students per group).
3. Divide the material needed to cover the topic (articles, reports, problems, etc.) into segments (as many pieces as number group members).
4. Assign each learner to learn only one of these segments. Each member must learn the material pertaining to their section and be prepared to discuss it with their classmates. Teacher must give students time to read and learn their segment and become familiar with it. Making sure students have access only to their own segment.
5. Form expert groups. Once students have learned their part, they move into expert groups by having one learner from each home base group join other students assigned to the same segment.
6. Explain them that they have to share ideas, and discuss the main points of their segment and plan how to present the information to their home base groups. In this point, you should give the expert groups instructions on their task. For example, if the task involves reading a chapter and carrying out a report, you may say to them, “discuss the reading with the group, reach a consensus on the main points you will teach your teammates and make sure everyone participates”, “think of some examples to clarify the main points”, “think and plan how you will check your teammates understanding”, “thank your expert group members for their help”. Give students in these expert groups time to discuss the main points of their part, and to prepare and rehearse the presentations they will make to their home base group.
7. After, tell students to return to their home base groups and take turns teaching their area of expertise to the other group member so each home group will have information about all topics. In this step is important keep in mind that some content will require to be dealt with in a specified order according to the teacher’s instructions. Ask each learner to present her or his segment to the group. Encourage others in the group to ask questions for clarification.
8. At the end of the session, give a quiz on the material. At this time, team members should not help each other.

# Learning Outcomes

## Knowledge

The students enhance knowledge and integrate it into a whole. It helps students to appreciate diversity and take account of others' point of view.

## Skills & Competences

The students develop social interaction skills, self-management, communication, trust, leadership and establishes an atmosphere of cooperation and helping school wide.

*“The process enabled me and other teachers to identify and set goals for improving daily implementations, which we will transfer to our peers.”  
- Karin Villgrattner, teacher Austria*

## Hints and Tips

After the activity, the teacher should give students time to reflect and analyse what they have accomplished, and how well they worked together, discuss their group skills and reflect on their learning (group processing): What worked well? Have we worked effectively together? What will we do differently in the future?

In the same way, the teacher should reflect on his or her own actions by asking: Were my students successful? Did my instructional decisions meet the needs of all students? What worked well? What will I do differently in the future? What are my next steps? Did the students understand the jigsaw structure? Were my instructions clear enough? Do any students need more instruction in the jigsaw strategy? Did they learn what I wanted them to learn about the topic? What do I need to teach next?



## TECHNIQUE N° 8 Group Investigation

### TECHNIQUES

*“Group Investigation is a cooperative learning model that integrates interaction and communication among learners with the process of academic inquiry. As learners take an active part in their inquiry in the course of a GI project, the classroom becomes a social system built on cooperation in learning within groups and on coordination of learning among groups.”*

*- Sharan, Sharan, & Tan (2013).*

### Description

Group Investigation (GI) is a cooperative learning method and a powerful strategy to involve teams of students researching a topic. This method can be used to study a wide range of subject areas, as long as the question or issue being investigated lends itself to broad inquiry. GI uses open-ended problems that provide students significant control on the focus of their investigation.

## Preparation

If the teacher has no experience in Group Investigation technique, additional research and preparation might be needed.

## Step by Step

1. Present the topic and use several key questions to define the scope of inquiry. You can encourage students to scan a variety of resources to activate their prior learning and stimulate inquiry.
2. Clarify the topic: Develop a list of questions that the students would like to investigate. You may guide this or have the entire class brainstorm together.
3. Classify questions to create sub-topics.
4. Form investigation groups: Students select subtopics of interest and form cooperative groups by themselves. Ensure that the groups have a good mix of contributors.
5. Clarify the task: Each group should explore its subtopic and formulate a research problem. Focus questions are developed to outline the scope of inquiry.
6. Develop an action plan: The group should decide:
  - Aspects to investigate;
  - Deadlines for reporting back;
  - Resources needed;
  - Assign or have students select jobs and responsibilities.
7. Explain that then group members should complete an action plan for each investigation day, gather data from resources, assess the relevance of the data related to the question and apply the data/ share their data to solve the group problem.
8. Explain that students should select a reporting method. It may be a presentation, poster, etc.
9. Explain to students that they should plan the report: discuss individual roles for the presentation and complete a presentation plan.
10. Finally, ask students to present the reports and respond to the report. Other groups may seek clarification or give feedback.
11. Check for understanding: Be sure that the students understand at the beginning how they will be evaluated. Students may complete a self-evaluation and add it to their portfolios. You may also require an individual report or testing of the material after the final presentation.

# Learning Outcomes

## Knowledge

The students learn how to appreciate diversity and take account of others' point of view.

## Skills & Competences

The students develop skills to generate creative thinking, as well as develop higher level thinking skills, social interaction, problem solving skills and ability to solve problems jointly, communication skills, self-management, trust, and decision-making.

The students develop transversal competences: communication, cultural, social, interpersonal/relational competences, and personal autonomy.

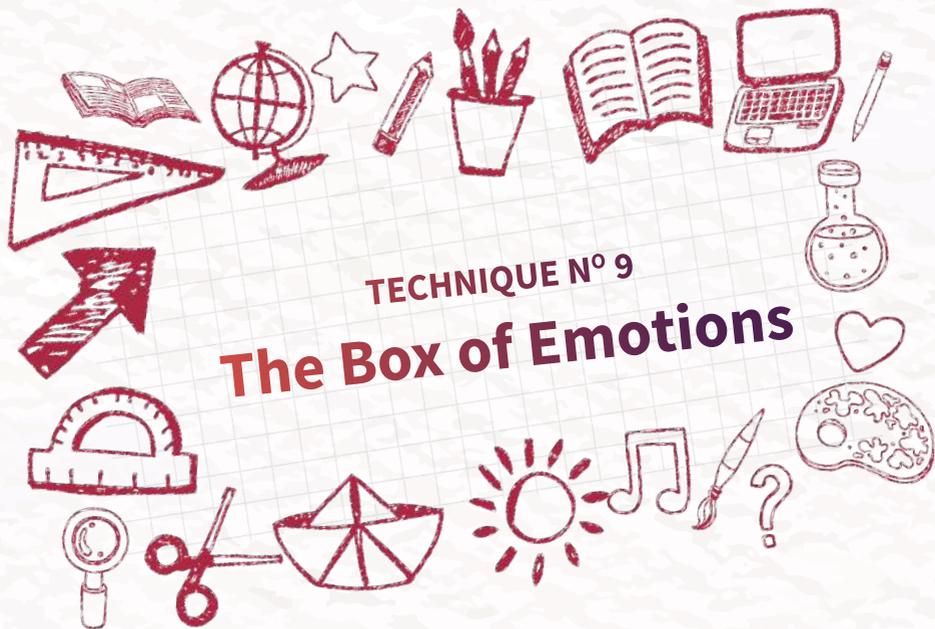
*"I could see the progress  
of all my students!"*

**- Purificación García, teacher, Spain**

## Hints and Tips

One of the elements that differentiates Group Investigation from other methods of cooperative learning is that in GI, students have the freedom to decide on the composition of their teams based on their interests and can assign their roles and responsibilities.

Students form interest groups of 2 to 6 members and work to carry out their project and synthesise the individual contribution into a group project, and present their findings in a group presentation for the class.



## TECHNIQUE N° 9

# The Box of Emotions

*“Your intellect may be confused, but your emotions will never lie to you.” - Roger Ebert (2013)*

### Description

The Box of Emotions technique is part of the “Didactics of Emotions” created by the Emotional Training Center<sup>11</sup> (ETC) in Italy. It is a method mostly used in schools with children and teenagers, but can be also used during workshops and seminars or personal development program with the aim of recognising, managing and modulating emotions.



### Preparation

The teacher has to prepare a cardboard box before the implementation of the activity. Additional reading about Didactics of Emotions and Emotional training or Emotional Intelligence could be very helpful.

<sup>11</sup> Emotional Training Centre, ETC:  
<http://www.educazioneemotiva.it/>

### Step by Step

1. Create a box and prepare blank cards for students where they can write their emotions.
2. Ask students to write on their cards messages about their feelings and possible causes for these feelings.
3. Give 10-15 minutes for introspection and writing, and invite the students to deposit their messages in the box.
4. Organise a semicircle and invite each learner to take one card and to read out loud the message, students should not read their own message.
5. Give the opportunity for group discussions: the students can comment and compare or guess the person who wrote the message.

## Learning Outcomes

### Knowledge

The students gain knowledge about the identification of needs-activation and communication channels.

### Skills & Competences

The students develop introspection skills and become empowered to recognise and personally decode emotions, sensations and moods, modifying actions and thoughts in a positive way.

By using this technique repeatedly, the students enhance their communication competences, group awareness and participation.

*“Once, I developed the technique outdoors and it was very helpful for shy students, that time they were more talkative and active!”*

**- Esperanza Manzanares, teacher Spain**

*“They loved to talk about feelings and emotions. Some of the students showed they feel comfortable expressing their feelings. The most reluctant were also capable of showing some of their inner emotions.”*

**- Ana Fernandes, teacher, Portugal**

### **Hints and Tips**

The teacher should give feedback and moderate group discussions. Active listening and empathy are important qualities of the teacher. All students together should decide how safe they feel to express their feelings in the group.

*“Once, I developed the technique outdoors and it was very helpful for shy students, that time they were more talkative and active!”*

**- Esperanza Manzanares, teacher Spain**



## TECHNIQUE N° 10

# Open Space Technology

*“It is the dance between chaos and order that is truly creative.” - Harrison Owen (2000)*

### Description

Open Space Technology facilitates empowerment for students on their learning, and they decide what and how they want and need to work on the topic. This method is to work on a general topic with a lot of workshops proposing by learner to exchange, to discuss and to learn together in peers. The goal of an Open Space Technology meeting is to create time and space for people to engage deeply and creatively around issues of concern to them. The agenda is set by people with the power and desire to see it through, and typically, Open Space meetings result in transformative experiences for the individuals and groups involved.

### Preparation

The teacher needs to prepare the training room (plenary and small group spaces), an invitation paper and document folder for each student, and paperboards in each space.

### Step by Step

1. Organise chairs in circle in the middle of the classroom prepared for the Open Space.
2. Put around the room letters or numbers to indicate meeting locations, prepare a blank wall that will become the agenda and a news wall for recording and posting the results of the dialogue sessions.
3. Ask the student group to convene in a circle and provide an overview of the process and explain how it works.
4. Invite students with issues of concerns to come into the circle, write the issue on a piece of quarter size flip chart paper and announce it to the group. These people are called the “conveners”. The conveners place their paper on the wall and choose a time and a place to meet. This process continues until there are no more agenda items.
5. Then ask the group to break up and head to the agenda wall, covered with a variety of sessions. Tell students to take note of the time and place for sessions they want to be involved in. Choose recorders in each group and explain them that their role is to note the important points and post the reports on the “news wall”. All of these reports will be rolled into one document at the end of the meeting.
6. Following a closing or a break, ask the group to move into convergence, a process that takes the issues that have been discussed and attaches action plans to them to “get them out of the room.”
7. End the meeting with a closing circle where students are invited to share comments, insights and commitments arising from the process.

## Learning Outcomes

### Knowledge

The students enhance knowledge, understanding and strategies in dealing with heterogeneity and diversity in groups, accommodating multiple perspectives and views. The students are more conscious about peer learning and the learning process, they recognise themselves as experts too and their empowerment by being active for their own learning.

### Skills & Competences

The students develop communication skills such as active listening and capacity for clear expression, presentation, cross-cultural communication. They develop transversal competences such as communication, reflection, cognitive and relational/cultural competences.

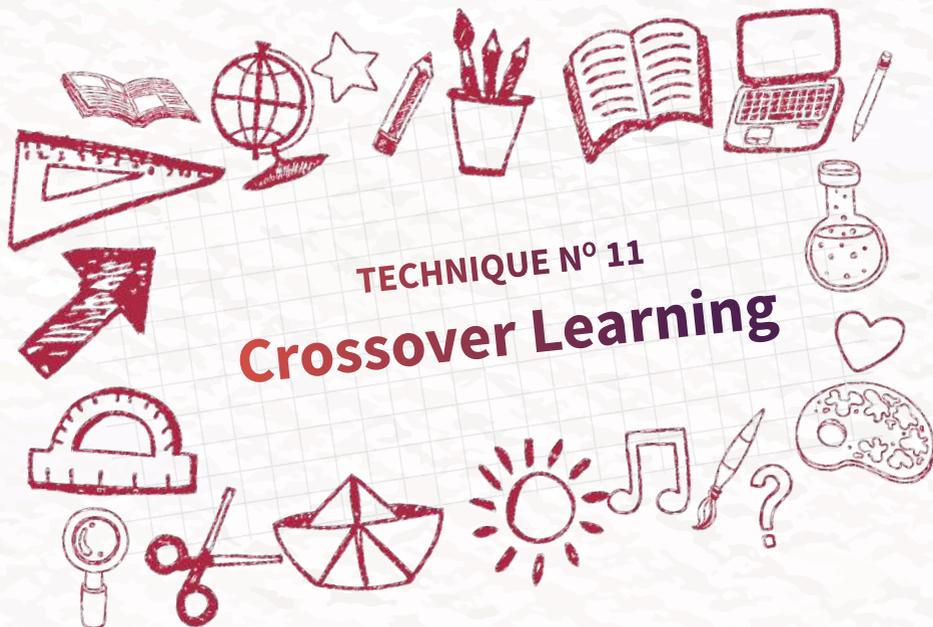
### Hints and Tips

The teacher has to facilitate the entire process of the workshop; the main challenge is during the introduction, therefore make the rules and the law understandable for students.

*“I have understood the importance and the impact it has to be well organised and to plan the activities with a real plan regarding the time.*

*It helps to keep a real dynamic and a rhythm that are essential when you are using non-formal education methods.”*

*- Isabelle, teacher, France*



## TECHNIQUE N° 11

# Crossover Learning

*“Art is an ideal starting point to build resilience in children”*. - **Museum M Leuven (2004)**

### Description

Crossover Learning is learning in informal settings, such as museums, clubs, academies, and all kinds of providers of extracurricular or “out-of-school activities”. Crossover learning experiences exploit the strengths of both environments and provide students with authentic and engaging opportunities for learning.

### Preparation

The teacher has to be well prepared about the theme linked to the chosen environment; he/she has to be able to ask the right questions to arouse interest, to link to the theme, so preparation in advance is crucial.

Whilst during the visit, students can be split into pairs. If a larger group is required, a maximum number of students suggested is 4 in a group. The duration depends on the tasks and place to visit.

### Step by Step

1. Before the visit, start the investigations in class, propose and discuss a question by using open questions, whether the subject is linked to science, mathematics, language, (descriptive writing, artful thinking, etc.) The students can e.g. already look up pictures, artworks, etc. that relate to the theme (e.g. patterns used in abstract Art, nature and how it is presented in painting, etc.).
2. Link to the visit to the museums, prepare tasks and questions in advance. Let the students use technologies, such as tablets or other computing devices, to look up some information. The theme, tasks, and the aim of the course have to be carefully pre-arranged with the museum guide.
3. Tell that the students have then to explore the question on a museum visit or field trip, collecting photos or notes as evidence. There can be a written assignment on the theme, and answers can be presented afterwards.
4. Ask students to share findings back in the classroom to produce individual or group answers.
5. Back in the classroom, evaluate the activity with students and their learning outcomes.

## Learning Outcomes

### Knowledge

The students increase their knowledge within a subject area, increase understanding of connections between subjects, increase learning across subjects and increase intercultural understanding.

### Skills & Competences

The students increase ability to work with others and their ability to make informed choices beyond and within planned experiences.

The students increase self-confidence and self-esteem, increase cultural understanding and respect and tolerance for others.

*“The students were really motivated and the session was very interesting. The development of the communication was quite noticeable because the indication of the problem encouraged the suggestion of solutions”.*

**- Paula Fernandes, teacher, Portugal**

*“This crossover learning experience provided students with authentic opportunities for learning and helped them recording, linking and sharing their own learning activities.”*

**- Paula Fernandes, teacher, Portugal**

### **Hints and Tips**

In the discussions, the teacher has to be attentive to involve all students. It is recommended to use open questions, there are no wrong answers. Similar didactics for other contexts (visiting social organisations, exhibitions, cities, botanical gardens, etc.) can be used.



## TECHNIQUE N° 12 Co-operative Learning in Multi-Cultural Groups

### TECHNIQUES

*“Future is in the hands of people who have the power to lead, to cooperate and to tackle all kinds of situations involving every strata of society. And we can make such learners in our classroom by cooperative learning method developing such social skills in them that they can lead a socially cohesive nation. On the whole, although there are various problems concerning learning and teaching in a multicultural environment, it should not be forgotten that there are also serious benefits that can be taken from multicultural education.” - Sharma & Metha (2014).*

#### **Description**

Co-operative Learning in Multicultural group (CLIM), is a technique where students work together in a diverse group. The interaction in CLIM combines intercultural education with academic content learning. Central CLIM principles include intellectually challenging and open-ended tasks that evolve around a central concept. They rely on multiple-abilities so that each individual brings different abilities, problem-solving strategies and experiences to the task consequently providing opportunities for equal participation of all pupils in the interaction. CLIM projects require a classroom management system using activity cards that allow pupils to decide for themselves what and how they are to do their work, co-operative norms, learner roles and a non-traditional teacher role.

## Preparation

The number of students is analogous to the number of roles during the task (group can consist of e.g. leader, reporter, mediator, timekeeper/materials manager, and information manager).

The teacher has to prepare clear instructions on paper for the group. If necessary, some literature about the subject, flash cards with the indications for each role can be added. Depending on the instructions, the students might be free or not to present the results of their tasks, choose the material, way of presenting, any other means of presentation. The teacher has to prepare the topic, theme, instruction material, flash-card and roles for the students.

## Step by Step

1. Set up the groups of students each consisting of 5 students.
2. Allocate the roles to students in each group: leader, reporter, mediator, timekeeper/materials manager, and information manager.
3. Explain the way each learner intervenes in the process and any role rotations or group reconstructions.
4. Distribute details of the tasks to be completed prepared in advance.
5. Provide space to students to express their impressions of the notion/concept to be acquired: this can be divided into two phases: (1) an individual expression by the learner using an ad-hoc support (list of words, drawing, diagram, Q-sort, photo-language...) then (2) exchange within each group on the different impressions, followed by a confrontation or debate. This is supposed to develop an initial level of reflexivity with regards to the notion/concept to be acquired and boost the learner's motivation.
6. Propose to students to do reading on the various complementary resources proposed by the teacher, each of which offers a certain insight into the concept/notion. If the nature and origin of the resources are similar from one group to another, they should be different for each learner.
7. Implement cross analysis between students who have had the same resources.
8. Ask students to return to the group (or create new groups ensuring that all the resources are present in each group) and encourage sharing between the students of the key elements in each of the documents.

9. Ask students to present conclusions from the problem situations in a plenary session. Motivate students to imagine original presentation methods (theatre, role play...).
10. Review the key points to be retained on the concept/notion, reply to any outstanding questions, highlight the difficulties encountered during group work sessions and question the behavioural aspects of cooperation (what works, what doesn't) in a concluding session.

## Learning Outcomes

### Knowledge

The students increase certain level of academic knowledge of the subject, certain level of spelling and formulation.

### Skills & Competences

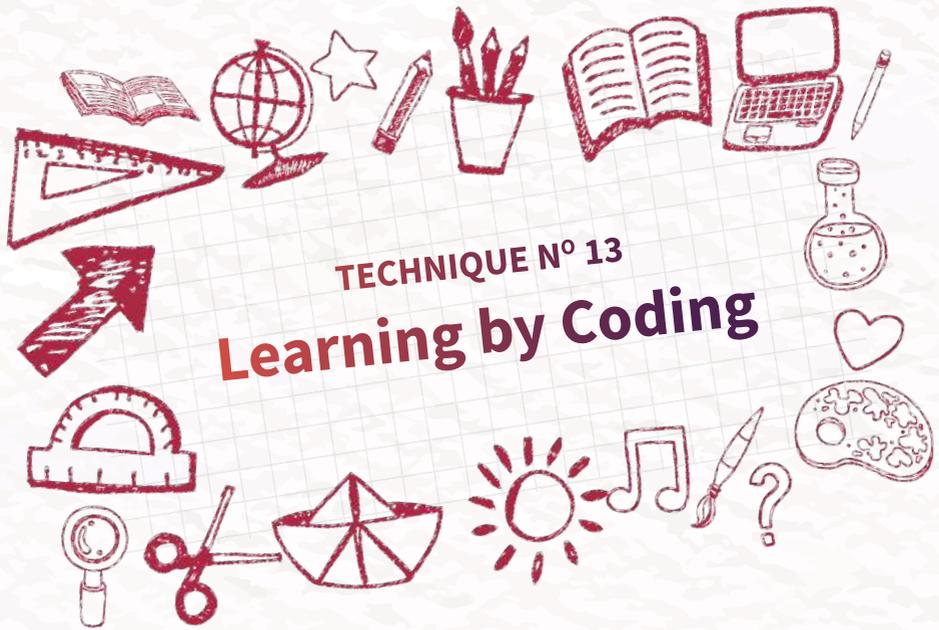
The students develop intercultural skills, organisational skills, enhance participation, assertiveness and social skills, are able to better manage information. They develop communication, co-operative learning, conflict resolution competences.

### Hints and Tips

The teacher observes while the pupils perform the tasks, gives feedback and assigns competence after the pupils have presented their tasks. These principles force the teacher to take on a non-traditional role, i.e. to relinquish control and delegate authority to the pupils.

*“Students became conscious of their identities and realised ways to enhance this. They realised their potentials, values and behavioural patterns.”*

*- Martina Plonker, teacher, Austria*



*“When you learn to read, you can then read to learn. And it’s the same thing with coding. If you learn to code, you can code to learn.” - Mitch Resnick (2012).*

### Description

The Learning by Coding Teaching Strategy is based on the constructivist approach. The theory suggests that humans construct knowledge and meaning from their experiences. Students construct their own understanding and knowledge of the world through experiencing things and reflecting on those experiences. Learning how to write code teaches students to blend logical and creative thought to solve problems, and that is a skill that will benefit them in any career.

### Preparation

Experience in Learning by Coding is necessary and the teacher has to prepare instructions for the learning materials, presentations, handouts for students, templates for evaluation forms, etc., add links for the programmes and apps. Computers and an internet connection are also needed.

### Step by Step

1. Introduce the topic: begin with a simple, fun activity to build interest and introduce the topic.
2. Explore: Let students do hands-on activities and interactive projects that engage them in expanding and applying the subject matter. The process moves from simple to increasingly complex and imaginative concepts and tasks.
3. Connect (Deepen understanding): Encourage the students develop deeper and broader understanding of major concepts, obtain more information about areas of interest, and refine their skills.
4. Imagine (Integrate creativity with purpose): After learning the core concepts and practices, ask the students to design and build an innovative project that addresses a community or world problem.
5. Remember (Synthesis and New questions): At the end of each module, ask the students to review the lessons and collectively highlight key points, formulate questions, and deduce meanings from their experiences and discoveries.

## Learning Outcomes

### Knowledge

The students increase their knowledge in mathematics, science, foreign and native languages in an attractive form.

### Skills & Competences

The students gain problem solving, entrepreneurship, creativity skills. Moreover, they increase their communication, planning, reflecting, decision-making, thinking skills, algorithmic thinking and mathematical thinking. The students enhance their ICT and digital literacy competences.

*“The result of the activity has been very beneficial because thanks to this technique students are aware of the utility of the knowledge for real life!”*

**-Patricia López, teacher, Spain**

*“Learning by coding has been very beneficial especially for students with low motivation for the subject. One of my students is very demotivated in general (also he is thinking to leave the high school) and in this activity he achieved the highest mark!”*

**- Patricia López, teacher, Spain**

### **Hints and Tips**

Encourage students to become active constructors of their own knowledge through experiences that encourage assimilation and accommodation.

Use cognitive terminology such as “classify”, “analyse”, “predict”, “create”  
Allow students responses to drive the lessons, shift instructional strategies and alter content.

Facilitate ‘Discovery’ by providing the necessary resources.

*“To implement the coding sessions, I have worked and validated the algorithm with the maths teachers. It was helpful also to feel more confident.”*

**- Nathalie, teacher, France**

*“I noticed that some students did not participate in the activity to prepare the algorithm, leaning on the rest of the group. I therefore decided to erase the blackboard on which we had created collectively the algorithm. I had told them this in advance. I think this idea contributed to create peer cooperation.”*

**- Nathalie, teacher, France**



## TECHNIQUE N° 14

# Mind map

*“Learning how to learn is life’s most important skill.” - Tony Buzan (2010)*

### Description

Mind mapping is a visual and nonlinear way to organise information and stimulate the thinking power of the mind developed by Tony Buzan. It enables the students to give freedom to their mind and to explore new territories, to mix ideas up in new ways, develop new patterns and channels of thoughts and to go deeper into a subject while maintaining a broad overview.

### Preparation

Time is needed to decide on the topics and to arrange the space for the activity: organise tables for small groups of 4-5 students and place flipchart paper on each table.

### Step by Step

1. Introduce mind mapping to students by explaining different ways of communication, different intelligence models and the benefits of collective competences.
2. After introduce that the work/ scheme will be organised as following: topic shall be presented in the centre, problematic situations/ issues shall be presented in square boxes around and solutions to problems in bubble boxes around the problems.
3. You can encourage students to vote to choose topic priority.
4. Divide the group into smaller groups and ask them to design their mind maps.
5. At the end of the session, ask all the groups to hang their presentations and explain the outcomes.

## Learning Outcomes

### Knowledge

The students learn how to make connections between thoughts to develop a systemic view, to reflect the expression of multiple points of view and opinions, and to facilitate the resolution of problems/conflicts.

### Skills & Competences

The students develop communication skills: active listening and capacity for clear expression, presentation, cross-cultural communication. The students learn to express themselves by a creative way and to provide an explicit structure to think and organise information.

*“All students are actively involved in the activities. Even students who are usually shy in the classroom were eager to express themselves.”*

**Mehmet Arda, teacher, Turkey**

### Hints and Tips

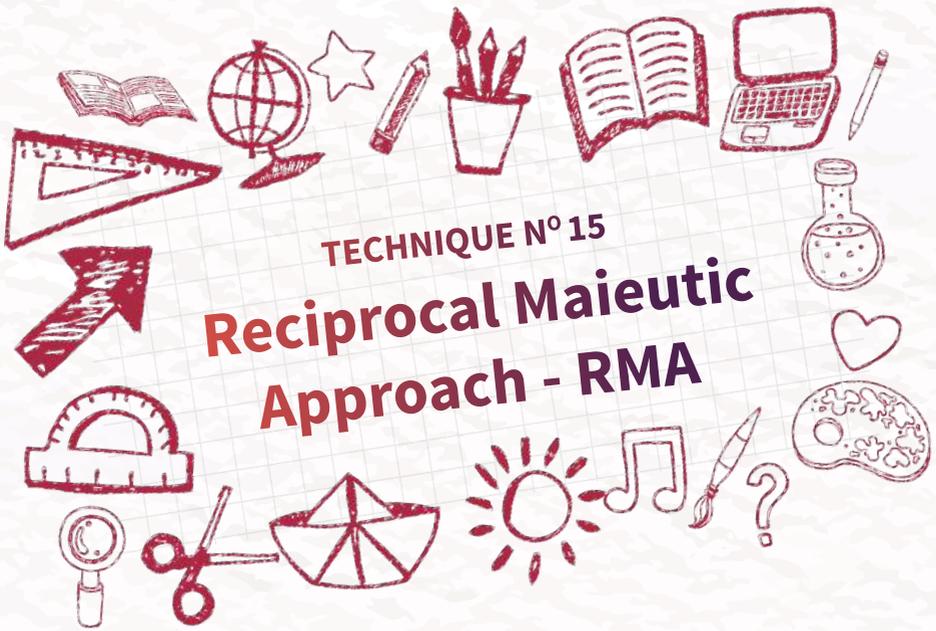
Put a word or symbol that represents what you want to think about in the centre of a page.

Capture every thought that comes to mind (No censoring!).

Link thoughts to the centre focus by printing key words on lines extending out from the centre.

Ideas related to each other are as “branches” of the original line from the centre.

Use colours as a way to organise thoughts, stimulate new thoughts or just because it is fun! Use symbols to create thought pictures.



*“The Reciprocal Maieutic Approach is a process of collective exploration that takes as a departure point the experience and the intuition of individuals.”*  
**- Danilo Dolci (1996)**

### **Description**

The Reciprocal Maieutic Approach (RMA) is a process of collective exploration of possible problem solutions and alternative paths that departs from the experience and the intuition of individuals, as theorised by Danilo Dolci. The RMA is a process of dialectical inquiry based on a democratic and open structure that can be used as an assessment tool.

The RMA learning process<sup>2</sup> starts with a long-term process of analysis and discussion about meaningful themes for the group, getting deep into feelings, inner perspectives and needs that people have. In a continuous dialogue that embodies a new way of educating, we begin by emphasising individual students’ capacity to discover their own vital interests and to express their feelings freely on the discoveries they have made. Word analysis is a practice used in RMA that aims to boost people’s capacity to analyse deeper the reality and develop their capacity of self-reflection. The ultimate goal is not to understand some “true meaning”, but rather to verify

how meanings “resonate” in many ways to different people and, more importantly, to reconstruct them through a shared experiential process of reciprocal discovery and respect.

In the RMA process, to educate is intended in the classical meaning of the word, that is “educere”, to take out. It aims to discover, resolve, decide, learn, design, think, build together as well as to know themselves more deeply by fully valorising everyone’s contribution.

With RMA, the educational process happens in two senses: the real discussions that happen and that might have concrete results and the development of competences through the discussions and group meetings. The experience of reaching decisions this way, of learning to modify and coordinate one’s own demands to those of others, and of learning to plan ahead, both personally and in a group, is important for everyone. Conversation encourages students to express themselves. The disposition to listen allows the educator to get closer to the learner’s way of thinking and seeing.

### **Preparation**

If the teacher has no experience in RMA, additional research and preparation might be needed to fully understand RMA and to practice it.

### **Step by Step**

1. Ask the group to sit in a circle so everyone has the same distance from the centre and can look at each other in the eyes.
2. In the first meeting, ask students to introduce themselves in a personal way, or by describing their personal dreams.
3. Afterwards, introduce the issue or a “good question”, e.g. What is education according to your personal experience? What is the transmission of information? What did you gain from the activity you participated in? What was the most important thing that you saw in your class and in yourself in terms of growth? Think about a question relevant to your subject. In some cases, students can be informed about the “question” in advance.
4. Ask the students to speak and express their opinion about the issue. It is important that everybody listens actively to each other’s voice. You might also invite silent students to speak, and allow or even inspire

moments of silence where people are not pressed to necessarily give some kind of answer, but rather to silently reflect on what they have just heard from other people, and then talk.

5. You can intervene when appropriate and give your own contribution in order to enable true reciprocity, but without influencing the group discussion by expressing the personal opinion on the topic being discussed.
6. Close the session by summarising and, if it is the case, talk about the next encounter, when, at which time, and about what. Ask a short evaluation from all the students about their personal experiences and about what they have learned within the group.
7. You can also close the session by doing a short evaluation of the meeting.

## Learning Outcomes

### Knowledge

The students enhance knowledge, understanding and strategies in dealing with heterogeneity and diversity in groups, accommodating multiple perspectives and views.

*He (my student) says that for him it is not easy to talk to others because he is shy and is afraid to make mistakes, and that people think he is stupid. He adds that during this activity he felt as if everybody was stupid and no one could make fun of anyone. Another student confirmed that in those two hours she felt free. -*

***Barbara Pellegrino, teacher, Italy***

### Skills & Competences

The students develop communication skills: active listening and capacity for clear expression, presentation, cross-cultural communication. They develop transversal competences: reflection, cognitive and relational/cultural communication.

*“It surprised me how because of RMA, the students can show effective and flexible ways of expressing themselves.”*

***- Marlene Seeberger, teacher, Austria***

*I'm very happy with how the RMA session worked. It was a very positive experience. All the students thanked me for giving them this opportunity to learn in a non-formal way.*  
**- Angelo Pellegrino, teacher, Italy**

### **Hints and Tips**

To ensure the educational process of RMA happens effectively, the teacher should harmonise the group discussion in order to allow each learner to have the proper amount of time during each session, so that each one can express her/himself on the issue.

It is important to put emphasis on real needs, interests, desires and dreams of students first.

The teacher should be capable of listening, summarising and giving feedback. Also, he/she should be good at time keeping, whilst allowing the time needed to express ideas.

It is useful to have a flipchart or a notebook to write down the diverse feedback and to record the outcomes of the sessions since RMA is used as an assessment method.

*“Drawing during the RMA helps, but sometimes it is too difficult and then they have to stop. Drawing supports pupils with weaker language skills”.*  
**- Veerle Smits Teacher, Belgium**

*“Conduct RMA using co-teaching as much as possible, that way the teacher can focus only on what the pupils are saying and not on class management.”*  
**- Lisa Verhelst, Teacher, Belgium**

# 3

## Conclusions

# Conclusions

This Toolkit has demonstrated that establishing a culture of collaboration within the school community IS possible! We hope to have inspired and encouraged you by offering practical teaching resources to support you to implement collaborative learning activities in the classroom.

The non-formal learning techniques we have shared with you in this Toolkit have given you some great examples on how you can incorporate our tested approach to collaborative learning into your own teaching in order to bring about change in your classroom and effectively increasing students' motivation, participation and raise their achievement levels.

We hope that no matter what level of your experience or knowledge is when using collaborative practices, whether you consider yourself a novice or an expert, with this Toolkit you have a great resource for adopting collaborative practices in your school.

The explanation of the activities we have delivered during the course of the project can give you some inspiration and food-for-thought on some of the activities that can be developed with teachers and students to foster such outcomes that can be achieved when delivering collaborative learning approaches in schools.

We understand that teachers need support to deliver collaborative learning. Whilst using this Toolkit, it is important that there is support from school head teachers and leaders, teachers, parents, inspectors, teacher trainers, curriculum developers and many other stakeholders from the wider school community.

Take inspiration from the teachers who have participated in the CARMA project and go tell your teacher colleagues about the different non-formal learning techniques you are using and how they have brought about motivation and participation among your students, so they can be inspired to try out the methods too. So, however complex your school environment may be, we believe that you too can make the collaborative learning

environment a reality in your school and make a positive impact!

and so finally...

With this Toolkit, you have the knowledge and tools to make a change in your classroom and school. **So what are you waiting for? Go for it!**

And don't forget – if you want to know more and further increase your skills and competences in collaborative learning, visit the CARMA website at: [www.carma-project.eu](http://www.carma-project.eu)



# 4

## Acknowledgments and Resources

# Acknowledgments and Resources

## 4.1 Acknowledgments

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*The CARMA partnership*

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### **4.3 Further Reading**

The Strategic Framework for the European Cooperation in Education and Training (ET 2020) [http://ec.europa.eu/education/policy/strategic-framework/index\\_en.htm](http://ec.europa.eu/education/policy/strategic-framework/index_en.htm).

Erasmus+ programme <https://eacea.ec.europa.eu/erasmus-plus>.

CARMA project website [www.carma-project.eu](http://www.carma-project.eu).

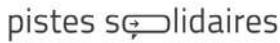
A collection of final resources and reports produced by the CARMA project and further resources to support collaborative learning practices can be found on the CARMA website at: [www.carma-project.eu](http://www.carma-project.eu) and on the CARMA Resource Bank.



# The CARMA Partnership



Project Coordinator,  
CESIE- Italy  
[www.cesie.org](http://www.cesie.org)



Pistes-Solidaires - France  
[www.pistes-solidaires.fr](http://www.pistes-solidaires.fr)



University of Murcia - Spain  
[www.um.es/gite](http://www.um.es/gite)



Asist Ogretim Kurumlari A.S. - Turkey  
[www.dogaokullari.com](http://www.dogaokullari.com)



University Colleges Leuven-Limburg - Belgium  
[www.ucll.be](http://www.ucll.be)



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[www.inovamais.eu](http://www.inovamais.eu)



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[www.migration.cc](http://www.migration.cc)

# CARMA

Non-formal learning for student motivation



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