



Erasmus+ Project "Cooperative learning and digital skills in entrepreneurship education"

2017-1-LV01-KA219\_035424

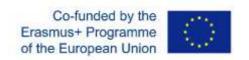
# COOPERATIVE LEARNING METHODS

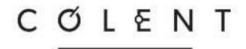
tested by partners in local and international classes during the project

# Graditeljska, prirodoslovna I rudarska škola Varaždin



**CROATIA** 





# "COOPERATIVE LEARNING AND DIGITAL SKILLS IN ENTREPRENEURSHIP EDUCATION",

2017-1-LV01-KA219-035242

### Career counselling via digital technology

### 1. Class/Classes to which the method/activity is addressed:

Dietary technician, nutrition technician, natural sciences gymnasium, architectural technician.

### 2. Stimulus/trigger:

Career counselling via digital technology to ease the decision-making for further professional development.

### 3. To which students' need does the specific method correspond?

Individual work, completing a survey via digital technology.

#### 4. Aims:

Raise awareness in students about the importance of career counselling for their future employment and managing their own careers. Introduce students to types and characteristics of specific occupations. Introduce students to personality traits which are desirable for certain jobs.

### 5. Connection of the activity to the existing curriculum or the common relevant school activities of the specific class:

Entrepreneurship in the food industry (3rd grade), Food industry economics (3rd grade), Homeroom class

### 6. **Duration** (total school hours):

Number of hours: 4

#### 7. Methods and materials used:

Oral presentation, conversation, discussion with students. Frontal method, individual work on computer.

### 8. 1st phase (preparation) (activities, tools):

The first phase consisted of introducing students to the way career counselling via digital technology is implemented, its functioning and the results analysis.

### 9. 2<sup>nd</sup> phase (implementation) (activities, tools):

After completing the survey and answering questions, students analyse the results. The results show the students which personality traits they have and which jobs are suitable for them. The results also show which traits they should further develop within the field they wish to build their professional career in.

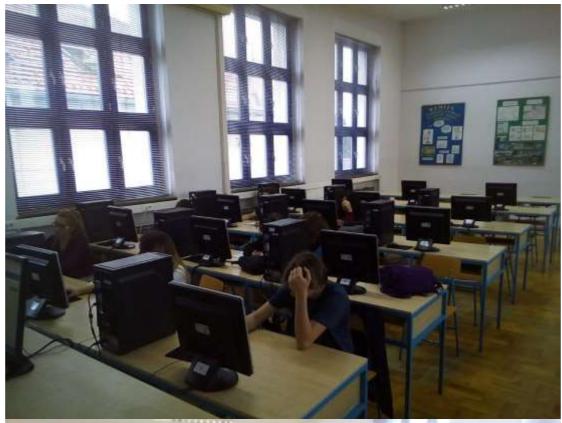
### 10. How did you manage to cooperate with other teachers – classes – schools – bodies – partners?

Cooperation via digital technology.

### 11. Report – Evaluation – Results

Results analysis. The results show the traits students already have, as well as the traits they should further develop.

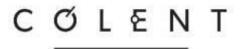






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# "COOPERATIVE LEARNING AND DIGITAL SKILLS IN ENTREPRENEURSHIP EDUCATION",

2017-1-LV01-KA219-035242

#### FINANCIAL LITERACY AND ENTREPRENEURSHIP

### 1. Class/Classes to which the method/activity is addressed:

Dietary technician, nutrition technician, natural sciences gymnasium.

### 2. Stimulus/trigger:

Improving the existing knowledge and skills and acquiring new knowledge and skills in the field of personal finances. Adequate planning of financial goals. Awareness of the difference between wishes and needs. Responsible behaviour while selecting a job or pursuing higher education.

### 3. To which students' need does the specific method correspond?

Frontal method, group work, dividing students into teams. Applying the knowledge of interest bearing accounts and percentages in everyday life.

#### 4. Aims:

Define the terms and procedures in establishing personal finances. Comprehend and connect the main ideas. Solve the problems in newly acquired content by applying new digital skills.

### 5. Connection of the activity to the existing curriculum or the common relevant school activities of the specific class:

Food industry entrepreneurship (2nd and 3rd grade), Food industry economy (3rd grade), Participation in public exhibits and festivals, Job fair.

### 6. **Duration** (total school hours):

Number of hours: 4

### 7. Methods and materials used:

Oral presentation, conversation, discussion with students. Frontal method, group work, individual work.

### 8. 1st phase (preparation) (activities, tools):

Introduction by the workshop presenter. Short presentation and workshop introduction. Why financial literacy? Linking several topics on financial literacy and entrepreneurship for youth.

### 9. 2<sup>nd</sup> phase (implementation) (activities, tools):

Describing the financial market and labour market. Defining the concept of money and certain institutions. Applying the knowledge of interest bearing accounts and percentages in everyday life. A list of key concepts and definitions. Group work and completing assignments.

### 10. How did you manage to cooperate with other teachers – classes – schools – bodies – partners?

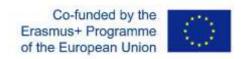
Cooperation via digital technologies.

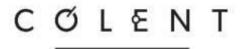
### 11. Report – Evaluation – Results

Impressions of the workshop. Filling out an evaluation form.









# "COOPERATIVE LEARNING AND DIGITAL SKILLS IN ENTREPRENEURSHIP EDUCATION",

2017-1-LV01-KA219-035242

### **Business meeting simulation**

### 1. Class/Classes to which the method/activity is addressed:

Dietary technician

### 2. Stimulus/trigger:

Improving the existing knowledge and skills and acquiring new knowledge and skills in the field of entrepreneurship, i.e. business meeting organisation. Correct planning and preparing of the roles for a business meeting simulation. Responsible behaviour during the business meeting, deal-making and drawing conclusions.

### 3. To which students' need does the specific method correspond?

Group work, dividing students into teams. Business meeting simulation through role play. The conductor of the meeting, the recorder, the supplier of goods, the buyer of goods.

### 4. Aims:

Discern and connect the main goal of the business meeting for each group. Solve the problems in the acquired content by applying new digital skills. Understanding the business etiquette.

### 5. Connection of the activity to the existing curriculum or the common relevant school activities of the specific class:

Entrepreneurship in the food industry (2nd grade), Participation in public exhibits and festivals.

### 6. **Duration** (total school hours):

Number of hours: 6

#### 7. Methods and materials used:

Conversation, student discussion. Group work, role play, simulation.

### 8. 1<sup>st</sup> phase (preparation) (activities, tools):

Preparing students for a business meeting. Creating a role for each of the students or a group of students. Completing a survey on the understanding of the business etiquette.

### 9. 2<sup>nd</sup> phase (implementation) (activities, tools):

Business meeting simulation through role play.

- a) Conductor of the meeting: notifies other participants about the time and place of the meeting and the agenda by calling them. He/she conducts the meeting and the discussion, draws conclusions after the purchase decisions have been made and closes the meeting.
  - b) Recorder: writes the record file according to the items on the agenda.
- c) Contractor: prepares the contract of purchase and completes it after an agreement has been made.
- d) Sellers: the food industry which sets the offer of products, sets the prices, negotiates with the buyers and signs the contract.
- e) Buyers: a retail chain which sets the demand for products, negotiates with the sellers and signs the contract.

### 10. How did you manage to cooperate with other teachers – classes – schools – bodies – partners?

Cooperation via digital technology.

### 11. Report – Evaluation – Results

Impressions and the analysis of the purchase that was carried out.











# "COOPERATIVE LEARNING AND DIGITAL SKILLS IN ENTREPRENEURSHIP EDUCATION",

2017-1-LV01-KA219-035242

GET - TEST

1. Class/Classes to which the method/activity is addressed:

Prehrambeni tehničar

### 2. Stimulus/trigger:

Stjecanje novih znanja i vještina u poduzetništvu. Test opće poduzetničke sklonosti o psihološkim karakteristikama poduzetnika.

3. To which students' need does the specific method correspond?

Individualni rad, rješavanje upitnika

### 4. Aims:

Poticanje učenika na poduzetništvo i osvješćivanje o različitim osobinama poduzetnika, te važnosti usvajanja određenih psiholoških karakteristika u razvijanju poduzetničkih vještina.

5. Connection of the activity to the existing curriculum or the common relevant school activities of the specific class:

Poduzetništvo u prehrambenoj industriji (3. razred)

6. **Duration** (total school hours):

Broj sati: 4

#### 7. Methods and materials used:

Usmeno izlaganje, razgovor, rasprava s učenicima. Frontalni oblik rada, individualni rad.

8. 1st phase (preparation) (activities, tools):

U prvoj fazi učenici su upoznati s karakteristikama GET – TESTA, načinom rada, te analizom rezultata

### 9. 2<sup>nd</sup> phase (implementation) (activities, tools):

Nakon ispunjavanja upitnika i odgovaranja na pitanja učenici analiziraju rezultate. Svrstavanje u područje prema broju bodova i analiza karakteristike. Područja su: potreba za postignućem, potreba za autonomijom, sklonost ka kreativnosti, preuzimatelj rizika, upornost i odlučnost.

### 10. How did you manage to cooperate with other teachers – classes – schools – bodies – partners?

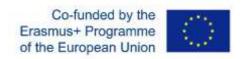
Suradnja putem digitalnih tehnologija.

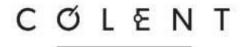
### 11. Report – Evaluation – Results

Učenici su svrstani u psihološko područje na temelju rješavanja upitnika i analize rezultata.









### "COOPERATIVE LEARNING AND DIGITAL SKILLS IN ENTREPRENEURSHIP EDUCATION", 2017-1-LV01-KA219-035242

#### MARKETING MIX

### 1. Class/Classes to which the method/activity is addressed:

Food technician, Natural sciences gymnasium

### 2. Stimulus/trigger:

Acquiring new knowledge and skills in developing marketing activities which are important for every product coming to the market. The marketing mix is a combination of four elements (4p: product, place, promotion, price).

### 3. To which students' need does the specific method correspond?

Group work, dividing students into teams. Completion of tasks and communication via digital technology (MS Word, Excel, Powerpoint). Presentation of individual tasks in front of students and teachers.

#### 4. Aims:

Understanding the methodology of making the marketing mix. Developing autonomy, team work, responsibility and personal creativity.

### 5. Connection of the activity to the existing curriculum or the common relevant school activities of the specific class:

Entrepreneurship in the food industry (2nd and 3rd grade), Food industry economy (3rd grade).

### 6. **Duration** (total school hours):

Number of school hours: 4

#### 7. Methods and materials used:

Oral presentation, conversation, discussion with students. Frontal work, group work, individual work. Prepared template for writing a business plan (MS Word, Powerpoint, Excel).

### 8. 1st phase (preparation) (activities, tools):

In the first stage, the students were introduced to the basics of marketing and all aspects of the marketing mix. Each component was explained in detail. They were divided into teams and each team was assigned a product. The students had to develop every component of the marketing mix for each product.

#### Product

- Describe the packaging!
- How many different styles of trainers does this brand offer?
- Do they have other products besides trainers? If yes, which ones?
- What is their slogan?

### Place (distribution)

- Where do they produce the trainers?
- Where do they sell them?

#### Price

- What is the price of a single product?
- What does the price tell you about the product in comparison with the prices of other trainers on the market?

#### Promotion

- What do you think about their website? Analyse the positive and the negative elements!
- Did you come across any prize contests or coupons? Which ones?
- Do they strive for any social or ecological goals? Do they support any associations? Which ones?

### 9. 2<sup>nd</sup> phase (implementation) (activities, tools):

After successfully completing the task of developing the marketing mix, the students made a Powerpoint presentation and each team presented their assignment.

### 10. How did you manage to cooperate with other teachers – classes – schools – bodies – partners?

Cooperation via digital technology.

#### 11. Report – Evaluation – Results

The students created the marketing mix for each of the products very conscientiously and responsibly. Each component was explained in detail. The business plan is complete and high quality.

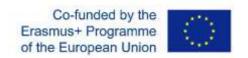




# IIS VIA EMERY 97 – ITC CALAMANDREI



**ITALY** 





# "COOPERATIVE LEARNING AND DIGITAL SKILLS IN ENTREPRENEURSHIP EDUCATION",

2017-1-LV01-KA219-035242



IIS VIA EMERY 97 – ITC CALAMANDREI



### NUMBERED HEAD THINKING TOGETHER

Numbered Head Thinking Together is a listening and speaking strategy that involves students working collaboratively in groups to answer a question posed by the teacher or to liven up a discussion

Cooperative learning is a practice that empowers students to interact with one another to realize a common goal

### 1. Class/Classes to which the method/activity is addressed:

<u>NUMBERED HEAD THINKING TOGETHER</u> method can be addressed to all classes, from primary to university. In ITC Calamndrei it is has been used in 3rd, 4th, 5th high school classes

### 2. Stimulus/trigger:

3rd class: If you were a lawer, what would you do?

4th class: Differences between a limited and an unlimited liability company

5th class: a discussion on ius soli or ius sanguinis?

### 3. To which students' need does the specific method correspond?

This method works to reinforce a student's own learning as well as the learning of his or her fellow group members.

GOOD STUDENTS: Working **ALL together** and sharing the same mark with the group mates, good students have an equal interest in both their own success and the group members' ones.

WEAK STUDENTS and lower achievers are enforced and are given confidence by this method. They are not afraid of making mistakes because they already know the answer to be given having already discussed it in groups

### 4. **Aims**:

The opportunity to practice listening and speaking skills, which is especially important for students who have special needs (In Italian BES), in the peer education contest

To give confidence to lower achievers because they feel stronger and they trust in themselves

### 5. Connection of the activity to the existing curriculum or the common relevant school activities of the specific class:

The *Numbered Head* has been practiced with a strict connection of Law studies curriculum. The contents were:

- "The contract structure" in the third class
- "Limited liability company" in the fourth class
- "How to get Italian citizenship" in the fifth class

in all cases the cooperative method has been an effective strategy for content review prior to a test (third and fourth classes) or to liven up classroom discussion (fifth class).

### 6. **Duration** (total school hours):

The duration depends on the content and on the class.

### 7. Methods and materials used:

- A spinner in order to have random choices of students to whom ask the questions
- A post it, when the students have to face a test for example with multiple choice
- A large classroom to let each group have a place where discussing the topic before students were called to share with the class.

### 8. **1**<sup>st</sup> **phase (preparation)** (activities, tools):

THE TEACHER: divides students in numbered, equal sized groups of 3-5. Each individual student within each group is also given a number by the teacher.

THE TEACHER assigns a topic (for a content review prior to a test) or an issue to discuss on (to liven up a classroom discussion)

### 9. 2<sup>nd</sup> phase (implementation) (activities, tools):

STUDENTS work together in their groups to discuss and determine an answer to the question or to face the topic to discuss on

During this time, each individual student can offer their thoughts and ideas.

All group members should be prepared and able to answer the given question or to attend a discussion

THE TEACHER chooses a student number at random using a spinner, and

THE STUDENTS with the same chosen number in each group share out to the rest of the class what their group discussed (fifth class) or give the right answer to the question (third and fourth classes)

### 10. How did you manage to cooperate with other teachers – classes – schools – bodies – partners?

Teachers are often afraid to implement cooperative learning in the classroom because it requires them to give up some control. In spite of that, younger teachers were very interested in.

Next school year the contanct person of Colent will support all teachers in running cooperative experiments during classes

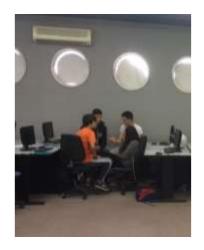
### 11. Report – Evaluation – Results

Every year at the end of the lessons, every teacher has to report about the teaching results in each course with a «Relazione finale» (final personal teaching report). There is a template to fill, with a space dedicated to method.

Students made an evaluation as well on a questionaire.

Results: Advantages of this strategy are: all students participate in a low-risk environment, it involves collective answering through group collaboration, weak students become more self confident a high degree of student interaction occurs

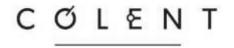
### ...AND IT'S HIGH ENERGY.











# "COOPERATIVE LEARNING AND DIGITAL SKILLS IN ENTREPRENEURSHIP EDUCATION"

2017-1-LV01-KA219-035242



IIS VIA EMERY 97 – ITC CALAMANDREI



### **THE POWER OF ONE**

"The Power of One" is a cooperative learning method that facilitates positive interdependence and where social skills are taught directly

### 1. Class/Classes to which the method/activity is addressed:

High school. First class.

#### 2. Stimulus/trigger:

The trigger was an authentic task:

Imagine...

- o Choose the most involving issue you have been studying during the yearlong in Law and Economics,
- o create a poster to present it
- o stick it to the classroom wall in order to impress and convince the bank emissaries to grant you a loan for a new start-up.

Your idea is to create a business that supports students in their homework in the afternoon and you need the grant to start

### 3. To which students' needs does the specific method correspond?

GOOD STUDENTS: working all together and sharing the same mark with the group mates, good students have an equal interest in both their own success and the group members' ones.

WEAK STUDENTS and lower achievers are enforced and are given confidence by cooperative work.

ALL TOGETHER Students share knowledge with others in the group, and learn something from others, as well.

### 4. Aims:

Cooperative groups are created based on the students' skill level so that every student can give his contribution. Students become responsible to others and for the group

No one can be replaced in his/her task.

### 5. Connection of the activity to the existing curriculum or the common relevant school activities of the specific class:

Since the activity took part at the end of the school year when all contents have already been developed, the students could choose whatever they prefered

### 6. **Duration** (total school hours):

four hours

#### 7. Methods and materials used:

- Limit students use of materials to create the necessity for working together (i.e. one pair of scissors, one piece of paper).
- A large classroom to let each group discuss the topic before starting to work to the task
- a specific table on which students can work together.

### 8. 1st phase (preparation) (activities, tools):

THE TEACHER: assigns a topic and divides students with numbered, equal-sized groups of 3-5 of different ability levels and backgrounds.

Gives students one specific space in which working together.

STUDENTS: Each student within each group is assigned one role by the teacher or by themselves to ensure accountability.

For example, responsible for looking for materials, graphic, illustrator, reporter, coordinator. Furthermore, students can divide the whole work by them.

### 9. **2**<sup>nd</sup> **phase (implementation)** (activities, tools):

- STUDENTS Group members work toward one common goal. Each member of the group works according to the role he has.
  - He/she ensures accountability for his/her personal contribution. Very important: each partial task or each role must be carried on only by the responsible of it.
- TEACHER: assures supervision and acts as a guide or facilitator.
  He/she should always monitor group activity to ensure that students are not
  veering too far off task and should be available to answer student questions or
  guides discussion if necessary.

### 10. How did you manage to cooperate with other teachers – classes – schools – bodies – partners?

Other teachers were told to ask information to the students about the posters in order :

- to let students feeling more responsible for their task

- to stimulate teachers' curiosity about this activity and method. Some of them got more involved and started to apply the same method

### 11. Report - Evaluation - Results

**Report:** Every year at the end of the lessons, every teacher has to report about the teaching results in each course with a «Relazione finale» (personal teaching report). There is a template to fill with a space dedicated to the method.

### **Results:**

Active interaction with others by setting group goals and working towards a reward or final learning outcome.

Individual accountability: students are accountable for their tasks and for assisting the whole group meets learning goals. This accountability is enforced through student roles.

Face-to-face interaction—students were encouraged to use verbal and non-verbal communication to solve problems, explain and share learning material.

the teacher established rules so that all students were respectful, spoke in a manner appropriate to the classroom setting, and utilized their time wisely during group interaction.

Furthermore, students engaged in reflection on how the group functioned during activity.

**Evaluation**—all activities should include both individual and group assessment.

#### AND IT IS HIGH ENERGY!





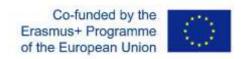




# Mālpils novada vidusskola



**LATVIA** 





# "COOPERATIVE LEARNING AND DIGITAL SKILLS IN ENTREPRENEURSHIP EDUCATION"

2017-1-LV01-KA219-035242

### Hobby group "Mazpulki" and its first steps in entrepreneurship

Forms in which the activity is used/carried out/implemented: hobby group "Mazpulki" (forms 2 - 4).

**The goal:** to understand the correlation between supply and demand; to become aware of the importance of healthy habits and to develop them; to encourage the development of the students' practical activities and social collaboration skills.

### Which of the students' needs correspond with this method/activity?

The method is consistent with the students' needs for meaningful free time and for creating practical and useful things for one's everyday life, as well as for learning activities beneficial to one's health and environment.

### The way in which the activity corresponds with the studying/educational plan or the hobby group activities' plan of the school

The activity corresponds with the following subjects:

- 1. home economics and technology production;
- 2. natural science introduction to the chemical composition of fruits and vegetables, the transformation of substances during drying and boiling processes, as well as to growing, gathering and storing fruits and vegetables;
- 3. mathematics calculating (kilograms, grams, ratio/proportion in recipes, money and income-expense calculations, planning);
- 4. social knowledge demand, supply, planning, socializing, market experience, analysis of said experience, future planning on the basis of experience and practice;
- 5. English translating designations and product names for prospective foreign consumers.

### **Duration of implementation (academic hours)**

On average — 2 academic hours per week (1 hour of weekly class + additional activities).

#### Methods and materials used:

Making dried vegetables and fruits:

Practical use of peeler, cutting knife and dehydration oven, packaging the products, jelly-making and storing in jars.

Making aromatic bath bombs:

Mixing dried fruit peels, tea leaves, soda, citric acid and oil, as well as rolling, pressing, packaging the bath bombs.

### Preparation phase (activities, tools, materials):

- 1. planning;
- 2. informing the students and their parents via info pages about the activities planned;
- 3. organizing the space;
- 4. gathering materials, promoting, advertising, requesting that the materials be brought to school (apples, pumpkins).

### Execution/usage/implementation phase (activities, tools, materials):

- 1. classes (peeling, cutting, drying, packaging, beautifying the packaging);
- 2. taking part in the marketing events of the school and the region;
- 3. counting the proceeds and discussing their utilisation;
- 4. informing the public.

### How did you collaborate with other teachers, students, extracurricular partners?

- 1. Collaborating with school administration and assistant manager.
- 2. Collaborating with parents (informing, requesting support).
- 3. Collaborating with the manager of *eco school* and the school's catering service provider's manager.
- 4. Collaborating with the region's inhabitants in relation to market events and on visits during which we gift our products (visiting people of importance and significance to Mālpils, as well as Mālpils regional care center).

### Results/evaluation

- 1. The students' sense of satisfaction and enthusiasm to be involved in the activities, their joy about the practical and useful products made by their own hands.
- 2. A meaningful study process which represents a well-distinguished beginning, course, action, result, application, as well as material and moral benefit to oneself.







# COOPERATIVE LEARNING AND DIGITAL SKILLS IN BUSINESS TRAINING,

2017-1-LV01-KA219-035242

### Chemical technologies

### 1. Class (s) in which it is used/implemented:

Classes 9a and 9b

### 2. Objective:

Strengthen pupils' knowledge of the most important chemical industries in Latvia, raw materials and products to be used in them

### 3. What is this method/activity relevant to the needs of pupils?

Pupils develop awareness of product acquisition, processes and the necessary raw materials. Learning to create visual materials, find the most important in text and information, learn to defend and base your opinion.

### 5. Relationship of activity with a training/parenting plan or a school out-of-hours activity programme

Corresponds to the minimum content of the standard Chemical for classes 8-9 of the basic curriculum

### 6. Duration of implementation (akad.st.)

7 hours

#### 7. Methods and materials used:

Graffiti method: pupils are divided into groups, each group makes graffiti – drawing, schemes about their subject. Breakdown of topics: Latvian mineral resources, their exploitation facilities, glass production, cement production, cast iron production, steel production, concrete types and use.

Materials: textbooks, Internet, mineral collections. Each group of pupils presents their performance to the others.

Lab work proving Carbonates in rock, pupils performed rock experiments. Kits of chemicals and work accessories for pupils.

Training films From Mines to cement and Production of Gasconcrete, as well as their working sheets.

### 8. Preparatory phase (activities, tools, materials)

Textbooks: miscellaneous expenditure, laboratory work accessories, chemicals, rock collections, worksheets. Internet resources.

### 9. Implementation/deployment phase (activities, tools, materials)

**Graffiti method**: pupils are divided into groups, each group makes graffiti – drawing, schemes about their subject. Breakdown of topics: Latvian mineral resources, their exploitation facilities, glass production, cement production, cast iron production, steel production, concrete types and use.

Each group shall meet the corresponding mineral resources and reaction products. The most active pupils find leading information on the Internet.

**School presentations**. The groups present the others with the corresponding rock, process and product in their presentation. There are groups that complement the presentation with appropriate short film or binding images.

Laboratory work proving Carbonates in rock.

**Teaching films.** Familiarity with the production processes in Latvia, their environmental impact, familiarity with the work environment of different companies. With an understanding, working sheets on the issues affected by the film are filled in.

10. How did you work with other teachers, pupils, extracurricular partners? I work with the pupils to help them avoid confusion in the flow of information. I watched the pupils make visual material with texts that I could understand, but scientifically correct. For each group, I make recommendations that should pay particular attention.

### 11. Results/Assessment

The pupils liked to create their visual materials, but it took time, because not everyone can quickly find the main, most important. In speaking, the pupils had the opportunity to reveal their awareness of the subject, as it was logical to justify their thoughts in answering the questions around them.



## COOPERATIVE LEARNING AND DIGITAL SKILLS IN BUSINESS TRAINING,

2017-1-I V01-KA219-035242

### CHOCOLATIERE-PROFESSION, CORRESPONDING JOB RESPONSIBILITIES AND NECESSARY SKILLS

### 1. Class (s) in which it is used/implemented:

Malpils District Secondary School Class 4b

### 2. Objective:

Provide students with the necessary skills, skills, awareness-raising of the future vocational choice and education of learners.

### 3. What is this method/activity relevant to the needs of pupils?

- Career selection
- Observation of the responsibilities, knowledge, skills of the professions concerned

### 5. Relationship of activity with a training/parenting plan or a school out-of-hours activity programme

- Natural knowledge properties, temperature, mixing
- Social knowledge demand, supply, choice, needs
- Math units of measure, computing, ratio
- Visual art design, colour, texture
- Household and technology cooking, presentation, presentation

### 6. Duration of implementation (akad.st.)

2 academic hours

### 7. Methods and materials used:

#### Methods

- Watching
- Experiment
- Practical operation
- Calculation of costs

### Materials

- Chocolate mass
- Templates
- Design material

### 8. Preparatory phase (activities, tools, materials)

- Planning
- Classroom at the Chocolate Factory
- Road transport
- Demonstration
- Chocolate mass
- Dishes and moulds

### 9. Implementation/deployment phase (activities, tools, materials)

- Introductory lesson
- Demonstration
- Experiment with changes in material temperature, achieving the required result, searching for meaningful explanations through a "brainstorm"
- Forecasting
- Practical operation
- Design of the product

### 10. How did you work with other teachers, pupils, extracurricular partners?

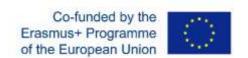
- I obtained information about this plant from my school teachers
- I'll pass the information on to my colleagues in the form of presentations and conversations
- Pupils will tell family members about their experience, demonstrate their own chocolate products and designs

### 11. Results/Assessment

I believe the lesson was successful, its choice and design were successful. Following the performance of the pupils and the results of the work, after interviews with the learners conclude that the lesson has been meaningful and has succeeded, the aim has been achieved, there has been good feedback from the parents of the children.









# "COOPERATIVE LEARNING AND DIGITAL SKILLS IN ENTREPRENEURSHIP EDUCATION"

2017-1-LV01-KA219-035242

### Study visit - Team building

### 1. Class (s) in which it is used/implemented:

Class 9a

### 2. Objective:

Develop the skills of student cooperation, improve the ability to work together, and raise awareness of the role of the individual in the group.

### 3. What is this method/activity relevant to the needs of pupils?

- Classes in the development of collective cohesion;
- Establishment of leaders;
- Identifying pupils who can address tasks strategically, as well as bringing together participants for the performance of the task;

### 4. Relationship of activity with a training/parenting plan or a school out-of-hours activity programme

Activity is related to parenting work. The game in the Mangasala bunkers "Lives and Surges."

### 6. Duration of implementation (hours)

Game 4-5 h, way to action and back - 3 h.

#### 7. Methods and materials used:

- Training tour;
- outdoor lesson;
- debate;
- the game of situations;
- analysis of situations.

### 8. Preparatory phase (activities, tools, materials)

The pupils had to have a practical comfortable scrub, a flashlight, 1 l of water for each member.

### 9. Implementation/deployment phase (activities, tools, materials)

The pupils played different games - had to be landed in an impromptu nuclear reactor where one pupil coordinated activities, others controlled the course of the game through the ropes, had to move various items on a stretcher without damaging them, had to go in a threatened room with gas masks, there was a task that depended on the winner. a team of winners. A strategy for carrying out the task needed to be developed, as well as analysing the positive and the shortcomings that have been made after each task. There was also an opportunity to rest in free nature, to play games.

### 10. How did you work with other teachers, pupils, extracurricular partners? The game was organised by the Contributes.

### 11. Results/Assessment

Students liked the lesson, and they could say they were excited.

1. We are preparing to overcome obstacles.

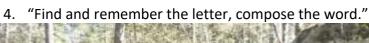


2. Landing in "nuclear reactor".

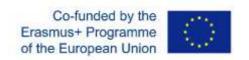


### 3. We're relaxing.











# "COOPERATIVE LEARNING AND DIGITAL SKILLS IN ENTREPRENEURSHIP EDUCATION",

2017-1-LV01-KA219-035242

### CLIL lesson\_CARS of the WORLD

### 1. Class/Classes to which the action is addressed:

Participants: Grades 9-12 (15-18 years old)

### 2. Stimulus/trigger:

This activity is one of the ways to generate curiosity, to encourage learners to interact more in the target language and cooperate with their partners

### 3. To which students' need does the specific action correspond?

Using their knowledge and experiences on machinery industry, the students discuss the given information about 70 car logos, identify and write down the names of the countries-manufacturers of the cars in the given time limit. After the time finishes, the groups exchange the worksheets, compare the answers with the given keys and mark the score.

#### 4. Aims:

The specific action corresponds to the improvement of students` cooperation, creativity and self-confidence in their knowledge.

To improve their knowledge of specific information about the world mashinery. To develop the skill of group work. To motivate the students to use their imaginative and comparative skills. To enhance the communication skills.

### 5. Connection of the activity to the existing curriculum or the common relevant school activities of the specific class:

Using CLIL stimulates communication and metacognitive competences.

### 6. **Duration** (total school hours):

2 school hours

#### 7. Methods and materials used:

Team Work

Analyzing and comparing information

Worksheets with the car logos (+ keys)

Charts, felt-pens

Stopwatch

### 8. 1st phase (preparation) (activities, tools):

Creating and designing the worksheets, choosing, selecting the appropriate information about the world car manufacturers, preparing necessary learning tools: felt-pens, sheets of paper, stopwatch

### 9. 2<sup>nd</sup> phase (implementation) (activities, tools):

The students are divided into the groups of four- five people. Each team gets the worksheet with the chart of the car logos. The students not exceeding the time limit. After completing the chart, the students compare and supplement their information discussing their results with the other groups. The second worksheets are delivered to the groups with the task to guess the names of the drawn countries using the map of the world during the given time limit. At the end the students check their answers ( The teacher gives the correct answers.)

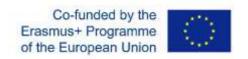
### 10. How did you manage to cooperate with other teachers – classes – schools – bodies – partners?

As the activity is connected with geography, there is a close cooperation with the geography teachers as well as with the students from different classes and different partner schools.

### 11. Report – Evaluation – Results

The activity challenges the students to use their imagination based on their previous experiences as well as gained information from the mass-medias and social networks which corresponds to the teenagers` lifestyle. The visual aspects of the activity cause the students` interest and curiosity about the specific topics and develop the efficient learning styles.







2017-1-LV01-KA219-035242

#### Dependence of labor productivity on available resources

#### 1. Class/Classes and age group to which the action is addressed:

Participants: Grades 9-12 (15-18 years old)

#### 2. Stimulus/trigger:

This activity is one of the ways to generate curiosity, to encourage learners to interact more in the target language and cooperate with their partners

#### 3. Short description of the project/activity/activities

Chose the captain of the team - the owner of the pizzeria, he is the only one from team is allowed to speak and give guidance to others. Each team (6 people) is given the same resources (1 scissors, 3 different color markers and unlimited paper). Task - to make as many pizzas as possible in 3 minutes (pizza is baked if the paper is cut out of a circle and has a corresponding number of symbols for each color). The first time a chef chooses only one employee. The second - two, ..., fifth - five.

#### 4. To which students' need does the specific action correspond?

The activity is intended to promote cooperation skills and creativity.

#### 5. Aims –specific objectives of the activity:

Creating an understanding of the relationships between available resources and output. Improve the ability to group responsibilities in group work. Improve communication skills.

## 6. Connection of the activity to the existing curriculum and EU/Global Day thematic field or the common relevant school activities of the specific class:

Using CLIL stimulates communication and metacognitive competences.

#### 7. **Duration** (total school hours):

2 hours

#### 8. Methods and materials used:

Team Work
Formulation of judgment
Paper
Scissors
Markers (3 colors)
Stopwatch

#### 9. 1ststage (preparation) (activities, tools):

Formulation of the assignment, creation of a scoreboard, preparation of the necessary teaching aids

#### 10. **2<sup>nd</sup>stage (implementation)** (activities, tools):

Pupils are divided into groups of six (it is important that the group has more participants than the available resources - scissors and 3-color markers). Choosing the leader of the group - the owner of the pizzeria (it is essential that only this person can speak during the task), the rest - pizzeria employees. Task - to make as many pizzas as possible in 3 minutes (pizza is considered to be baked if a certain size of paper is cut out on the paper and there is an appropriate number of symbols for each color). The first task is done by the chef with one employee. In the second - with two employees,.... The results are presented in a table. The team winning the most pizza in all rounds wins. In the end, the group's opinion on the availability of available resources to the quantity of output produced should be formulated.

## 11. How did you manage to cooperate with other teachers – classes – schools – bodies – partners?

As the activity is connected with economy, there is a close cooperation with the economy teachers as well as with the students from different classes and different partner schools.

#### 12. Report - Evaluation - Results

The activity encourages understanding of the need for division of labor in group work, the ability to cooperate and participate. Activity allows you to understand the real challenges of business creation and to identify the relationships that are relevant to this process. This activity, in a fun and creative way, allows students to acquire the knowledge and skills they need in business.

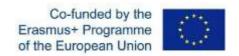




# Agrupamento de Escolas de Amareleja



# **PORTUGAL**





2017-1-LV01-KA219-035242



1. Class/Classes to which the method/activity is

**addressed**: The activity was addressed to 8th and 9th grade students.

#### 2. Stimulus/trigger:

To motivate students by listening to the testimony of successful entrepreneurs, so that they would have a true and real account to begin with and to get them started in the theme of entrepeneurship.

#### 3. To which students' need does the specific method correspond?

This specific method was used by students in large groups so as to allow them to interact with their interlocutors and colleagues giving way to debates and discussions as well as the sharing of ideas or even dreams.

#### 4. **Aims**:

The main aims are to help students trigger the right motivativation to want to start taking action to help them shape their future; To acquire the necessary self esteem so that they will be able to take action by themselves in order to achieve their goals.

5. Connection of the activity to the existing curriculum or the common relevant school activities of the specific class:

Vocational orientation and career choice.

6. **Duration** (total school hours):

One 90 minute session + one 45 minute session.

#### 7. Methods and materials used:

Debating/discussion sessions; Group work; Presentation skills; PowerPoint slides; Viewing samples of promotional videos; Practical games

#### 8. **1**<sup>st</sup> phase (preparation) (activities, tools):

Preparing students to become young entrepreneurs, giving them the necessary tools to work autonomously and be ambitious with themselves as well as to be innovative.

#### 9. 2<sup>nd</sup> phase (implementation) (activities, tools):

Students had to listen to the lectures and debate the main aspects they felt were necessay to be reinforced or even to be clarified. Then they had to work in smaller groups in the solution of a problem that was presented to them.

## 10. How did you manage to cooperate with other teachers – classes – schools – bodies – partners?

Through email mainly.

#### 11. Report – Evaluation – Results

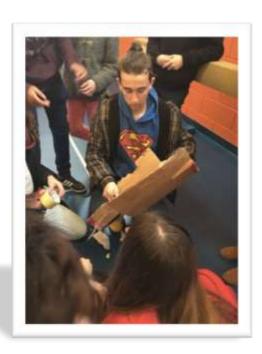
The final product was what we expected with a very good outcome from our students who together managed to solve the problem that had been given to them.

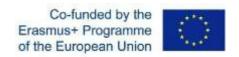








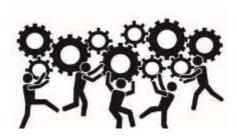






2017-1-LV01-KA219-035242

#### COLLABORATIVE WORK



#### 1. Class/Classes to which the method/activity is addressed:

The activity was addressed to teachers.

#### 2. Stimulus/trigger:

To introduce this methodology to students, so that they start to develop the sense of team work and to collaborate among themselves in order to achieve sucess at a higher level.

#### 3. To which students' need does the specific method correspond?

This specific method was used to give teachers training to help them work with students in terms of the development and widespread use of communication networks and the possibility of collaborative learning providing new training and teaching scenarios. Such scenarios involve several educational domains among which teacher training stands foremost, leading us to try to understand how teacher professional development takes place in collaborative learning environments. Such an understanding will contribute towards a training aligned with the needs of permanent education, and will also be able to contribute towards professional teaching development and improving professional practice

#### 4. **Aims**:

The main aims are to enable teachers to restructure the traditional values in education so as to promote a kind of education which favours the learning process of all students. Moreover collaborative work facilitates the school change, promotes students' academic success, and can lead to school improvement, in other words improving education quality

#### 5. Connection of the activity to the existing curriculum or the common relevant

#### school activities of the specific class:

Improving teaching/learning practices.

#### 6. **Duration** (total school hours):

One 3 hour session.

#### 7. Methods and materials used:

Debating/discussion sessions; Presentation skills; PowerPoint slides;

#### 8. **1**<sup>st</sup> **phase (preparation)** (activities, tools):

Theoretical approach by the trainining teacher.

#### 9. 2<sup>nd</sup> phase (implementation) (activities, tools):

Discussing and debating the main aspects of the lecture and associating them to good teaching practices so as to motivate teachers to reflect on their own teaching practice in a collaborative way.

## 10. How did you manage to cooperate with other teachers – classes – schools – bodies – partners?

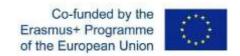
Direct contact.

#### 11. Report – Evaluation – Results

The final product was what we expected with a very good outcome from our teachers who participated motivating them to change and innovate in their teaching practices.









2017-1-LV01-KA219-035242

## How to become an entrepreneur

#### Learn by doing

#### 1. Class/Classes to which the method/activity

is addressed: The activity is addressed to 9th

grade students.

#### 2. Stimulus/trigger:

To motivate students encouraging them to put their creativty into use and turn it into something valuable that will help them to become young entrepreneurs in the future.

#### 3. To which students' need does the specific method correspond?

This specific method is to be used by students in groups of 3, which will represent the manager of an enterprise, its financial adviser and the director.

#### 4. **Aims**:

The main aims are to help students acquire the necessary knowhow so that they will be able to create their own successful company, as well as promotional mechanisms which will be fundamental to put whatever product they wish to sell in the market.

## 5. Connection of the activity to the existing curriculum or the common relevant school activities of the specific class:

Vocational orientation and career choice.

#### 6. **Duration** (total school hours):

Two 90 minute sessions + two 45minute sessions.

#### 7. Methods and materials used:

Debating/discussion sessions; Roleplaying; Group work; Presentation skills; PowerPoint slides; Viewing samples of promotional videos;

#### 8. 1<sup>st</sup> phase (preparation) (activities, tools):

Preparing students to become young entrepreneurs, giving them the necessary tools to work autonomously and be ambitious with themselves as well as to be innovative.

#### 9. 2<sup>nd</sup> phase (implementation) (activities, tools):

The groups of students had to come up with their own business plan and then present their final work to their colleagues and teachers explaining to everyone the viabilty of the success of the new company roleplaying their presentations according to the tasks each one had within the company itself.

## 10. How did you manage to cooperate with other teachers – classes – schools – bodies – partners?

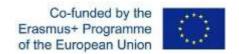
We managed perfectly as we had previously had training sessions on cooperative work, so, also in teams, we distributed different tasks among ourselves and discussed the different stages of the work in short meetings and through email mainly.

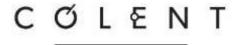
#### 11. Report – Evaluation – Results

The final product was what we expected with a very good outcome from our students.









2017-1-LV01-KA219-035242



#### 1. Class/Classes to which the method/activity is addressed: The

activity of «corporate coaching» was addressed to teachers.

#### 2. Stimulus/trigger:

To introduce the methodology of group formation to teachers following the model of the Primary Representation System which shows us how aprehend and integrate within ourselves the different day to day experiences. It is a simple and powerful methodology to help us gain conscience on how to reach other «audiences» in this case, our students.

#### 3. To which students' need does the specific method correspond?

This specific method was used to give teachers training to help them work with students in terms of group formation so as to develop the assigned school/project tasks in an effective, more collaborative and entrepreneurial way.

#### 4. Aims:

The main objective of this kind of training was to give teachers some powerful tools to organise their students towards their own academic success. In other words, there was a need to train teachers how they could efficiently form groups to improve overall communication, productivity and students attitudes towards themselves and others so that they could efficiently carry out the project's tasks and from here improve their skills for the future. It is important to refer that our school is not a professional course orientated school, so we had to come up with the right mechanisms in order to be able to meet the project's objectives.

## 5. Connection of the activity to the existing curriculum or the common relevant school activities of the specific class:

Vocational and career orientation as well as the improving of teaching/learning practices.

#### 6. **Duration** (total school hours):

One 3 hour session.

#### 7. Methods and materials used:

Debating/discussion sessions; Presentation skills; PowerPoint slides;

#### 8. **1**<sup>st</sup> phase (preparation) (activities, tools):

Theoretical approach by the trainining teacher.

#### 9. 2<sup>nd</sup> phase (implementation) (activities, tools):

Discussing and debating the main aspects of the lecture and associating them to good teaching practices so as to motivate teachers to act upon on their own teaching practice in an innovative and collaborative way.

## 10. How did you manage to cooperate with other teachers – classes – schools – bodies – partners?

Direct and email contact.

#### 11. Report – Evaluation – Results

The final product was what we expected with a very good outcome from our teachers who participated motivating them to change and innovate in their teaching practices.





2017-1-LV01-KA219-035242 *"Let's clean the Baldio"* 

#### 1. Class/Classes to which the method/activity is addressed:

The activity of cleaning a natural environmentally protected area near the school, in Amareleja was addressed to students and their families, teachers, the school and locla communities and several other public institutions.

#### 2. Stimulus/trigger:

To put into practice the dynamics of collaborative and cooperative learning methods.

#### 3. To which students' need does the specific method correspond?

The whole school community put their efforts together in order to organise an event which counted with the support of the local Council, the local police, firefighting officers and the Municipality in Moura, integrated in the joint activities of protecting the forest and the environment.

#### 4. **Aims**:

The main objective of this activity was to show all the involved parties, mainly our students how cooperation and collaboration have the strength and the power to make a difference.

### 5. Connection of the activity to the existing curriculum or the common relevant school activities of the specific class:

Vocational and career orientation as well as the improving of entrepreneurial teaching/learning practices.

#### 6. **Duration** (total school hours):

A whole morning (4 hours).

#### 7. Methods and materials used:

Cooperative learning method + cleaning materials like rubbish bags and gloves

#### 8. **1**<sup>st</sup> phase (preparation) (activities, tools):

In the 1st phase teachers motivated their students to participate and get their families to join in as well. For this they discussed the subject in class, got the students to make some research on environmental issues.

#### 9. 2<sup>nd</sup> phase (implementation) (activities, tools):

The teachers who organised the event got the right message to be passed on through the school's site and by getting the students involved in such a way that they mobilised colleagues and organised themselves in groups each covering a specific area making all the work simple and easy.

## 10. How did you manage to cooperate with other teachers – classes – schools – bodies – partners?

Direct contact, by phone and email as well as the social networks.

#### 11. Report – Evaluation – Results

The final product was what we expected with a very good outcome from all the participants, specially our students who showed attitudes of civic resposibility and entrepreneurship.



