

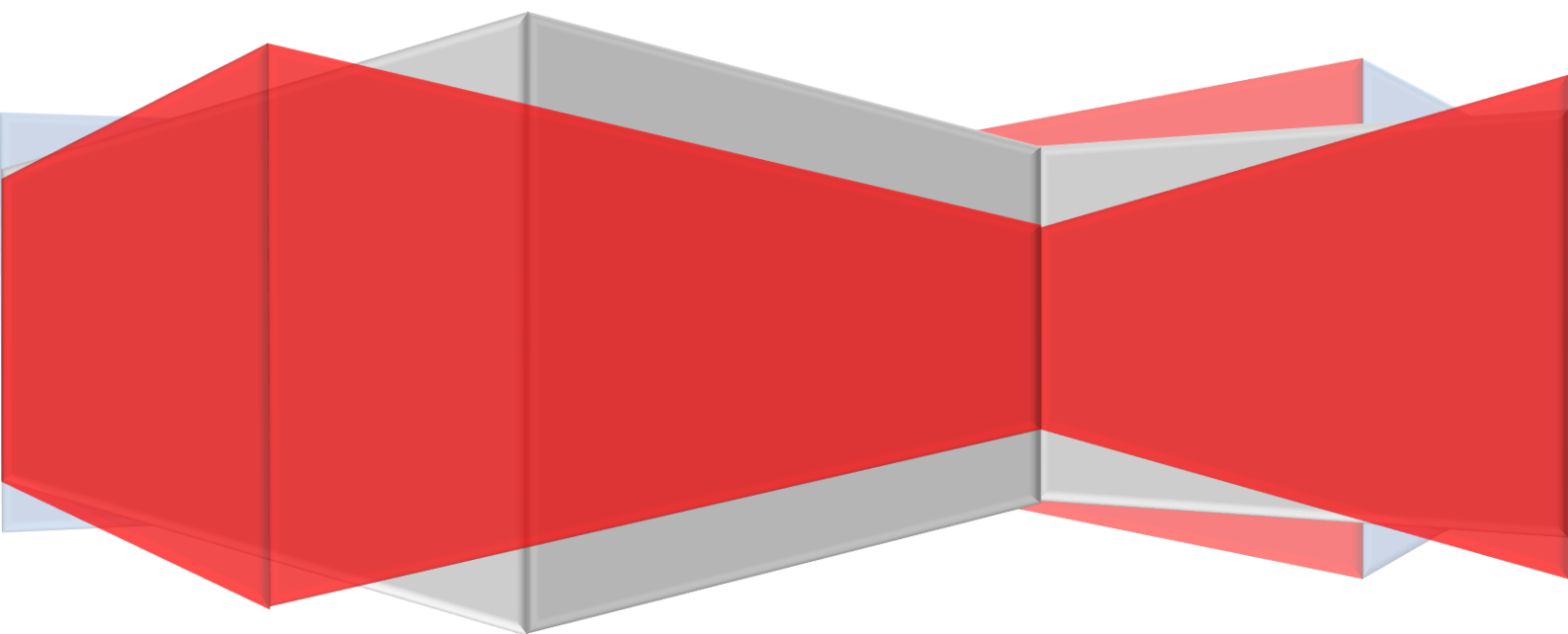
Cultivate school entrepreneurial mindset through holistic approach targeting teachers and pupils



ISO Certified Materials for Teachers: Development of Entrepreneurial Mindset for teachers Level 6

IO5A8: 1.2 Creativity

Partner Responsible: FH JOANNEUM



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

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Cultivate school entrepreneurial mindset through holistic approach targeting teachers and pupils



enterschoolmind

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Apostolos
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Tyrnavos

Program	Erasmus+
Key Action	KA201 - Strategic Partnerships for school education - Cooperation for innovation and the exchange of good practices
Project Title	Cultivate School Entrepreneurial Mindset through a Holistic Approach Targeting Teachers and Pupils
Project Acronym	EnterSchoolMind
Project Agreement Number	2018-1-CY01-KA201-046906
Project Start Date	01/11/2018
Project End Date	31/10/2021

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The LOs at a glance

Competence Code and Title	1.2 Creativity
Entercomp Area	Ideas and opportunities
Learning Outcome Numbers and Titles	<p><i>In terms of knowledge:</i></p> <ol style="list-style-type: none"> 1. Define creativity and list its elements that are relevant in classrooms <p><i>In terms of skills:</i></p> <ol style="list-style-type: none"> 2. Encourage pupils to find new ideas and perspectives by using creative techniques like Mindmapping, The Walt Disney Method and others, and guide them through their developments by following the four main steps of the creative process <p><i>In terms of competences:</i></p> <ol style="list-style-type: none"> 3. Support pupils to generate ideas and encourage experimentation by providing a learning atmosphere that encourages creativity 4. Understand own creative strengths and weaknesses and help pupils to become aware of their creativity by supporting reflection of their creative endeavour

Methodological tool Type	Number of Methodological tools
<input checked="" type="checkbox"/> Lecture (compulsory)	1
<input checked="" type="checkbox"/> Open-ended questions	1
<input checked="" type="checkbox"/> Closed questions	1
<input checked="" type="checkbox"/> Individual Exercise	1
<input type="checkbox"/> Role play	
<input type="checkbox"/> Experiential workshop	
<input checked="" type="checkbox"/> Group discussion	1
<input checked="" type="checkbox"/> Brainstorming	1
<input type="checkbox"/> Group Exercise	
<input type="checkbox"/> Other (Please indicate)	

Total Number of methodological tools:	6
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Compulsory Methodological tools

Power Point Presentation

Code of methodological tool	
PPT1.2_1	
Competence Code and Title	1.2 Creativity
LO codes and titles	<ol style="list-style-type: none"> 1. Define creativity and list its elements that are relevant in classrooms 2. Encourage pupils to find new ideas and perspectives by using creative techniques like Mindmapping, The Walt Disney Method and others, and guide them through their developments by following the four main steps of the creative process 3. Support pupils to generate ideas and encourage experimentation by providing a learning atmosphere that encourages creativity 4. Understand own creative strengths and weaknesses and help pupils to become aware of their creativity by supporting reflection of their creative endeavour
Aim of the methodological tool	This ppt will provide all relevant information and basic knowledge about the competence <i>1.2 Creativity</i> . A definition of the competence will be mentioned as well as an overview about the related learning outcomes and activities how to develop the competence.
Hints and tips for the trainer	
Attachment	PPT1.2_1

Open Ended Questions

*In this methodological tool you need to develop at least **five (5) open ended question for the competence** to be developed through classroom learning.*

Code of the methodological tool	
CL1.2_2	
Competence Code and Title	1.2 Creativity
LO codes and titles	<ol style="list-style-type: none"> 1. Define creativity and list its elements that are relevant in classrooms 2. Encourage pupils to find new ideas and perspectives by using creative techniques like Mindmapping, The Walt Disney Method and others, and guide them through their developments by following the four main steps of the creative process 3. Support pupils to generate ideas and encourage experimentation by providing a learning atmosphere that encourages creativity 4. Understand own creative strengths and weaknesses and help pupils to become aware of their creativity by supporting reflection of their creative endeavour
Aim of the methodological tool	<p>Self-assessment</p> <p>The open-ended questions allow the participants to answer in their own words based on their knowledge, feeling, and understanding. The answers are unrestricted and not limited to a set of options and give space for self-reflection and self-expression. Trainers will get an insight into the participants' attitude and thinking as well as a peek into their inhibitions.</p>
Hints and tips for the trainer	<p>Answering each of the following questions in at least one paragraph.</p>



Question 1: How would you characterize a creative person?

Individual answers such as:

- typical traits of a creative person: open-minded, curious, creative people are energetic, but focused, playful, yet disciplined, solution-oriented, attentive, etc.
- answer could as well be that there are no specific characteristics that make a person be creative, but they might have in common that they follow up ideas, they stay focused etc.

Question 2: How would you describe your own creative strengths and weaknesses?

Individual answers such as:

I like to draw, I like to write stories or even write scripts for small theatre plays, I think independently, I like to play the guitar and think about new melodies, I see problems and think about solutions that I put into practice, I like to share dreams, etc.

On the weaknesses side there might be limitations like, I am so busy with everyday life that I have no time/am too tired to develop new ideas, even if I try to I cannot think of something new, I have great ideas, but I am not focused enough to put them into practice, etc.

Question 3: When and where have you been in contact with creativity in your everyday life?

Individual answers such as:

I feel creativity when I see paintings in galleries, visit museums, listen to music during concerts, go to the theatre, but also in my personal life when I prepare a meal with new ingredients without a recipe, coming up with new ideas for (school) projects, finding a solution to a problem I had, etc.

Question 4: Describe a situation in your professional environment in which you have noticed creativity.

Individual answers such as:

I was overwhelmed when a child in my class sang a beautiful song and when I asked where he'd know the song from he replied that he came up with the other day.

Question 5: How do you motivate others to start a creative process?

Individual answers such as:

I make time for and give freedom to come up with new ideas, I trigger pupils' curiosity by providing interesting and relevant indications, I make children question things, I provide opportunities to express their ideas and perspectives, I tolerate mistakes, I guide and support my pupils, etc.

Closed Questions

In this methodological tool you need to develop at least ten (10) close questions, of any type in order to consider as concluded methodological tool.

Code of methodological Tool:	CL1.2_3	
Competence Code and Title:	1.2 Creativity	
LO Code and Title:	<ol style="list-style-type: none"> 1. Define creativity and list its elements that are relevant in classrooms 2. Encourage pupils to find new ideas and perspectives by using creative techniques like Mindmapping, the Walt Disney Method and others, and guide them through their developments by following the four main steps of the creative process 3. Support pupils to generate ideas and encourage experimentation by providing learning atmosphere that encourages creativity 4. Understand own creative strengths and weaknesses and help pupils to become aware of their creativity by supporting reflection of their creative endeavour 	
Aim of the methodological tool:	This will be the tool to assess the knowledge of the course contents of the participants. By using closed questions the answers are easier to code and analyze.	
Hints and tips for the trainer:	Print out of the assessment tool needs to be provided.	
Question Type:	Type	Number
	True/False questions and answers	1, 2, 3, 4, 5
	Multiple Choice Questions and answers	6, 7, 8, 9, 10
	Multiple Response Questions and answers	11, 12, 13, 14, 15
	Sequence questions and answers	
	Matching question and answers	
	Word Bank questions and answers	



True/False Question

Choose whether the statement is true or false

Statement:	Creativity is only needed if you are working in a creative environment.
True	
False	x
Correct Answer	False

True/False Question

Choose whether the statement is true or false

Statement:	A common obstacle in the development of creativity is the feeling that curiosity is a weakness.
True	
False	x
Correct Answer	False

True/False Question

Choose whether the statement is true or false

Statement:	Creativity occurs in the left half of the brain.
True	
False	x
Correct Answer	False

True/False Question

Choose whether the statement is true or false

Statement:	High IQ is not a prerequisite for creativity.
True	x
False	
Correct Answer	True

True/False Question

Choose whether the statement is true or false

Statement:	Creativity is independent of culture and values
True	x
False	
Correct Answer	True



Multiple Choice Question

Select the correct answer from the choices below

Statement:	A well-known technique of exploring creativity is
Alternative 1	Mind-Mapping
Alternative 2	Brain-Mapping
Alternative 3	Mind-Searching
Correct answer	1

Multiple Choice Question

Select the correct answer from the choices below

Statement:	Possible characteristics of creative persons are:
Alternative 1	Curiosity
Alternative 2	Inflexibility
Alternative 3	Always follows structured work plans
Correct answer	1

Multiple Choice Question

Select the correct answer from the choices below

Statement:	The "Walt Disney Method" is based on the interaction of 3 roles. One is:
Alternative 1	Dancer
Alternative 2	Dreamer
Alternative 3	Director
Correct answer	2

Multiple Choice Question

Select the correct answer from the choices below

Statement:	Supporting aspects for promoting creativity are:
Alternative 1	Sufficient resources
Alternative 2	Encouragement
Alternative 3	Strict guidance
Correct answer	2

Multiple Choice Question

Select the correct answer from the choices below

Statement:	To enhance your creativity, you should...
Alternative 1	... avoid any risks
Alternative 2	... know your limits
Alternative 3	... be open to new ideas
Correct answer	3



Multiple Response Question

Select one or more correct answers from the choices below

Statement:	How could creativity be defined?
Alternative 1	Creativity is the ability to create something new and useful.
Alternative 2	Creativity is needed in every job.
Alternative 3	Creativity is an innate talent that cannot be learned.
Correct answer	1

Multiple Response Question

Select one or more correct answers from the choices below

Statement:	Main elements of creativity defined from NACCCE are:
Alternative 1	Knowing the techniques
Alternative 2	Pursuing purposes
Alternative 3	Judging value
Correct answer	2, 3

Multiple Response Question

Select one or more correct answers from the choices below

Statement:	What do you think are the main characteristics of creative children?
Alternative 1	Creative children have the ability to make unusual associations.
Alternative 2	Creative children have a large number of ideas or solutions to problems.
Alternative 3	Creative children are better at sports.
Correct answer	1, 2

Multiple Response Question

Select one or more correct answers from the choices below

Statement:	Can creativity be developed in the classroom?
Alternative 1	Yes, but only if the parents support.
Alternative 2	Yes, but only if the environment is appropriate.
Alternative 3	Yes, but only if the teacher is a creative person.
Correct answer	2

Multiple Response Question

Select one or more correct answers from the choices below

Statement:	One of the important stages of a creative process is:
Alternative 1	Preparation
Alternative 2	Verification
Alternative 3	Illumination
Correct answer	1, 2, 3



Additional methodological tools

Group discussion

Code of methodological Tool:	CL1.2_4 (Mis-)Conceptions on Creativity
Competence Code and Title	1.2 Creativity
LO Code and Title	<ol style="list-style-type: none"> 2. Encourage pupils to find new ideas and perspectives by using creative techniques like Mindmapping, The Walt Disney Method and others, and guide them through their developments by following the four main steps of the creative process 3. Support pupils to generate ideas and encourage experimentation by providing learning atmosphere that encourages creativity 4. Understand own creative strengths and weaknesses and help pupils to become aware of their creativity by supporting reflection of their creative endeavour
Aim of the methodological tool:	The main objective of this methodological tool is to interact and discuss with people that one might not normally have a conversation with. That means that participants have a chance to learn something new, exchange ideas and perspectives and expand the horizons about “(mis)conceptions on creativity” in a group discussion.
Hints and tips for the trainer	The required slides are provided in the Power Point Presentation. The trainer/moderator should facilitate the discussion, allowing the participants to feel free and confident expressing their point of view. The trainer/moderator is a good listener, who can encourage the group member’s interaction, keeping his/her personal views and ego out of the discussion.

Introduction to the topic (if applicable)

- This group discussion will help the trainer break the general misconceptions about creativity and creative people.
- The main questions will be answered in the group discussion.
- Each participant in the group discussion receives a printed note with the prepared tasks/questions.
- The group discussion should take place in a quiet and relaxed environment.
- The group discussion will last approx. 40 minutes. The duration is up to the moderator given the specific context of the discussion group.

Guiding questions (if applicable)

Discuss the following main questions within the group: True or false? (up to 40 minutes)

- 1) Do creative people have a higher IQ?
- 2) Is creativity measurable?
- 3) Is creativity only important for artists?
- 4) Is creativity a talent given at birth?

Take the following “findings” about creativity into consideration while summing up the discussion.



1. Anyone can be creative. It is not about intelligence. That is required in the second phase when you have to take the idea to a conclusion that will make sense or turn into practice. Scientific research has not proven a direct link between higher IQs and creativity. Being creative is also dependent on an environment that allows persons to be open to new ideas and be creative, to the person's traits: do I allow my thoughts to come up with new solutions, as well as reflecting own creativity to become aware of the development. Also the knowledge of appropriate techniques can help to be develop creativity.
2. While no single test is perfect, there are many ways to assess (and improve) creativity. For example, asking new questions to build upon an idea, brainstorming multiple ideas and solutions to problems, communicating existing ideas in new and innovative ways, etc., are usually indicators of creative thinking. Similarly, the rubric of measuring creativity will assess *how well* each of the aforementioned tasks have been performed.
3. Creativity is relevant for all fields in life. For example, Archimedes and the golden crown. Tasked with determining whether or not a golden crown was indeed made of solid gold, Archimedes was stumped on how to go solve the challenge without partially destroying the crown to see what was inside. He was frustrated by the problem for some time, day and night. Until one night while getting into a bath, Archimedes noticed the level of the water slowly rise as he dipped his foot into the tub. When he put his entire body into the tub he noticed how the water level rose significantly more. Realizing he could measure the density of the golden crown by placing it into a tub of water, then comparing that rise against the density of a similar mass of gold, he had solved the problem. He immediately jumped from his bath, shouting "Eureka!" and stormed off down the city streets stark naked.
4. As human beings, we all have tremendous creative capacity; we just need to develop it. Your level of creativity isn't fixed at birth. Instead, think of creativity as an expandable muscle. Similarly, to build creative capacity requires some practice and focus and using appropriate techniques (some will be referred to in this workshop). There is an overwhelming amount of scientific research confirming that you can grow your creativity at any age.

Conclusion questions

There are no totally true or false answers. In case perspectives are not well understood, ask a follow up question.

Conclusions (if applicable)

It is important for the trainer to encourage the group members to share their opinions, and to refrain from sharing his/her personal opinion on the matter.



Brainstorming

Code of methodological Tool:	CL1.2_5 Implementing a Story Telling Activity
Competence Code and Title	1.2 Creativity
LO Code and Title	<ol style="list-style-type: none"> 2. Encourage pupils to find new ideas and perspectives by using creative techniques like Mindmapping, The Walt Disney Method and others, and guide them through their developments by following the four main steps of the creative process 3. Support pupils to generate ideas and encourage experimentation by providing learning atmosphere that encourages creativity
Aim of the methodological tool:	This brainstorming activity aims at generating as many ideas/perspectives as possible within the group setting. This environment fosters an uninhibited, non-judgmental amount of ideas/perspectives/answers. All contributions are valid, and as many ideas as possible should be shared without evaluating them. Flowchart of activity conducting.
Hints and tips for the trainer	<p>This activity is conducted by starting with explaining the task, presenting the rules below, then generating and elaborating on individual ideas, and ending with collecting, grouping and discussing the answers.</p> <ol style="list-style-type: none"> 1. Focus on quantity: This rule is a means of enhancing divergent production. 2. Withhold criticism: In brainstorming, criticism of ideas generated should be put 'on hold'. By suspending judgment, participants will feel free to speak openly. If needed, critics can be addressed at a later stage. 3. Welcome unusual ideas: To get a good and long list of ideas, unusual ideas are welcomed. 4. Combine and improve ideas: Encourage lively discussion. It is believed to stimulate the building of ideas by a process of association.

Topic
<p>Ask the participants to:</p> <p>Think about a Story Telling activity you would like to implement in your classroom:</p> <ul style="list-style-type: none"> - Instructions to pupils? What information do they need to be able to start? - Preparation and materials? What do you need to bring with you? E.g. a book where words can be taken out randomly? Or a jar full of pieces of paper with words on it? Or music? Or, or, or, what is needed to start the creative process? - How to encourage pupils? Supporting factors to be considered? E.g. open atmosphere, pupils are not afraid to share their ideas, fresh air, friendly wall colours, light, etc. - Emotional support to pupils?

Where might pupils need emotional support? How could the teachers help? Encourage all pupils to participate and share their stories, help shy pupils to speak up, use prompts if a pupil is stuck...

Method of analysis (eg grouping of ideas, development of a new model etc)

Participants are asked to write their ideas anonymously. Then the moderator collects the ideas or participants present their answers and group and if possible subgroup of answers is done on flipcharts or posters (one per category). Results should be discussed.

Conclusions

Exchange of ideas and perspectives. Share and compare own ideas and perspectives with others to broaden the own view. Conclusions are dependent on the outcomes of the brainstorming process.



Individual Exercise

Code of methodological Tool:	CL_1.2_6 Find the right word
Competence Code and Title:	1.2 Creativity
LO Code and Title:	<p>3. Support pupils to generate ideas and encourage experimentation by providing learning atmosphere that encourages creativity</p> <p>4. Understand own creative strengths and weaknesses and help pupils to become aware of their creativity by supporting reflection of their creative endeavour</p>
Aim of the methodological tool:	<p>The main goal of this tool ("find the right word") is the development and strengthening of the creative elements of personality through a creative approach by language using word and language games. The self-perception of creativity can be trained effectively with these games. Participants will experience how creativity can be trained, new ideas can be brought up and perspectives can be changed through planned and guided learning developments.</p> <p>A subsequent reflection round will help the participants to become aware of their own creative endeavors. This reflection should lead to a discussion how important reflection is to become aware of one's own creativity and how this can be supported in the classroom.</p>
Hints and tips for the trainer:	Set a maximum time limit of 60 minutes for these exercises.

General Guidelines (for the facilitator)

Language and word games are an ideal combination of fun and usefulness. As a rule, you hardly need any preparatory work, and even the use of materials is usually very manageable. One block, one pen - these simple utensils can be used to play this language and word game "find the right word". The atmosphere in the room should be relaxed and unstressed; the human being is rather creative in a relaxed state. Creative thinking is about "letting go" in order to get into a flow mood. Humor and trust could help.

Please work out the following tasks on the topic of "creative use of language".

(1) In other words

a) Make as many sentences as possible in which the bold printed words, no matter in what sequence, occur. The plural numbers are not allowed.
CREATIVITY | **TEACHER** | **CLASSROOM** |

b) You should find as many new words as possible from the letters of the individual words, whereby not all characters must always be used (possible answers in the bracket)

- blackboard (black, road, lack)
- educational sector (cat, tic, lion)
- facilitator (rat, cat, actor)

(2) Articulateness

- a) Write down as many words as possible that begin with S or s and end with e.

(3) Impossibilities

- a) List as many different things as possible which one/a teacher normally cannot do
- ...when the sun is shining
 - ...while watching a movie
 - ...with a suitcase in the hand
 - ...while washing the dishes
 - ...with ice skates
 - ...while reading a book

(4) Explore your innate capacity for creativity

1: How is this item called and how many different uses can you think of for this object?



2: Can you imagine a number of things that could have possibly caused this person to be so surprised? Be as much creative & innovative as possible.



Number of persons

< 20

Instructions for the participants

Be creative; explore your phantasy; make your thoughts flow value-free and work out what has been found;

Estimated Duration

60 minutes

Materials

Handout, pen

Debriefing Question 1

How have you been on this task?

Did you feel comfortable with all the tasks or have there been problems in any of it?

Debriefing Question 2 (please add as many questions as needed)

Have you ever heard about these word games?

Have the word-games been creative?

What about your innate capacity for creativity?



Which aspects do you think are important when it comes to a reflection process?
 Why do you think that reflection is important when it comes to creative endeavours?
 How can reflection on creativity be supported in the classroom?

Instructions/Comments from facilitator

Print out of handouts needs to be prepared. Compare results (in group or partner work)

Brainstorming

Code of methodological Tool:	CL1.2_7 Creativity in the classroom – where, how and when?
Competence Code and Title	1.2 Creativity
LO Code and Title	<p>7. Support pupils to generate ideas and encourage experimentation by providing learning atmosphere that encourages creativity</p> <p>8. Understand own creative strengths and weaknesses and help pupils to become aware of their creativity by supporting reflection of their creative endeavour</p>
Aim of the methodological tool:	This brainstorming activity aims at generating as many ideas/perspectives as possible within the group setting. This environment fosters an uninhibited, non-judgmental amount of ideas/perspectives/answers. All contributions are valid, and as many ideas as possible should be shared without judging them.
Hints and tips for the trainer	<p>This activity is conducted by starting with explaining the task, presenting the rules below, then generating and elaborating on individual ideas, and ending with collecting, grouping and discussing the answers.</p> <ol style="list-style-type: none"> 1. Focus on quantity: This rule is a means of enhancing divergent production. 2. Withhold criticism: In brainstorming, criticism of ideas generated should be put 'on hold'. By suspending judgment, participants will feel free to speak openly. If needed, critics can be addressed at a later stage. 3. Welcome unusual ideas: To get a good and long list of ideas, unusual ideas are welcomed. 4. Combine and improve ideas: Encourage lively discussion. It is believed to stimulate the building of ideas by a process of association.

Topic

Ask the participants to:
 Think about what, where, when and how they can implement activities in the classroom to foster creativity. The more detailed the teachers' ideas are, the better.

Method of analysis (eg grouping of ideas, development of a new model etc)

Participants are asked to note their ideas on post-its. Then the moderator collects the ideas or participants present their ideas and grouping and if possible subgrouping of answers is done on flipcharts or posters (one per category).

Conclusions

Exchange of ideas and perspectives. Share and compare own ideas and perspectives with others.

Group Discussion

Code of methodological Tool:	CL1.2_8 Creativity in the classroom – where, how and when?
Competence Code and Title	1.2 Creativity
LO Code and Title	<ol style="list-style-type: none"> 5. Define creativity and list its elements that are relevant in classrooms 6. Encourage pupils to find new ideas and perspectives by using creative techniques like Mindmapping, the Walt Disney Method and others, and guide them through their developments by following the four main steps of the creative process 7. Support pupils to generate ideas and encourage experimentation by providing learning atmosphere that encourages creativity 8. Understand own creative strengths and weaknesses and help pupils to become aware of their creativity by supporting reflection of their creative endeavour
Aim of the methodological tool:	This activity builds directly on the previous one where participants were asked to come up with ideas about where, when and how they can implement activities to foster creativity in the classroom. The aim of this tool is to bring together all the learnings from this workshop and discuss different experiences and opinions.
Hints and tips for the trainer	Trainer should encourage participation and open discussion.

Introduction to the topic (if applicable)

Participants got an introduction on the competence: Creativity. This activity builds directly on the previous one where participants were asked to come up with ideas about where, when and how they can implement activities to foster creativity in the classroom. Now they are asked to discuss exchange and discuss their ideas.

Guiding questions (if applicable)

The trainer should give room for an open discussion, since this is considered to be a wrapping-up activity and all remaining questions should be discussed and answered. However, the trainer should guide the discussion and lead it towards the focus by asking questions like:

Out of the insights you got during the workshop

- What do you consider as most important to be integrated in the classroom?
- How exactly do you plan to integrate?
- In which subjects do you think your plans can be integrated?

The ideas participants bring up can be noted down and grouped on a pinwall.

Conclusion questions

Participants should also be asked about their emotional learnings during the workshop

- What was the most surprising fact you learned during the workshop?
- Which idea will you definitely implement in your classroom and why?
- Why do you consider the topic of sustainability/sustainable thinking important to be addressed in the classroom?
- Why do you consider the topic of creativity important to be addressed in the classroom?

Conclusions (if applicable)