Teachers' and on-site facilitators' Manual for Implementation of the EDU Europe Diverse and United learning approach

Contents

Introduction

The purpose of this manual is to support the teachers or the on-site facilitator of a primary school classroom to implement the learning approach and materials of the EDU Europe Diverse and United project.

To achieve its purpose, the manual has the following main parts:

Pedagogical Guide for Teachers and On-site Facilitators
This part presents the framework of the learning approach, describes learning techniques that teachers may utilise, and provides information relating to the pedagogical approach suggested by EDU Europe Diverse and United project.

Teaching Methodology
Describes the process of developing a learning activity and provides the appropriate templates. Following this part, teachers will be able to use the learning activity template that describes in detail all the aspects (description, resources, phases of the activity, etc.) of a learning activity that they are developing or that they want to record and share it with the primary education community.

Useful Content Library
The library will be in the form of an educational resources' repository, providing teachers with available and open-source learning content and useful information, in a user-friendly way by providing links and information for each given resource.

Pedagogical Guide for Teachers and On-site Facilitators

Creativity Techniques
The following techniques can be utilized by teachers in the classroom. The techniques are designed to endorse students' creativity and can be used in different phases of a learning activity of the EDU Europe Diverse and United approach.

Six Thinking Hats
A teaching model promoting critical and creative thinking, is used for exploring different perspectives towards a complex situation or challenge.

Description
What is this technique about
This colourful strategy exposes learners to six different styles of thinking and helps them look at a problem from six different perspectives. It's a simple mental metaphor. Each of the Six Thinking Hats has a different colour and each colour represents a unique way to look at an issue. Hats are easy to put on and to take off. If not available, other subjects of the same range of colours can be used – balloons, sticks, paper sheets. Each hat is a different colour which signals the mode of thinking. In a group setting each member thinks using the same thinking hat, at the same time, on the same thinking challenge.

Where does it come from
Six Thinking Hats is a system designed by Edward de Bono. Although the Six Thinking Hats was originally devised to help organizations conduct more efficient meetings, its use as a tool in education is equally valuable.

For which purposes it is used
Thinking hats can be used at many different levels and for many different situations. Making good decisions as a group requires discussion where different perspectives and options are considered:
● Group Project Brainstorming
● Big Group Decisions
● Preparation for Debates
● Controversial Issues
● Challenging Perspectives of Current Events
● Developing Critical Thinking
● Developing Innovative Thinking

- Preparation for Discussions
- Structuring and Facilitating Discussions
- Problem Solving Situations

Implementation
Start the session by explaining that the Six Hats technique is designed to encourage everyone to approach a problem or issue from a variety of different perspectives.

🎩	White Hat	· List out the facts · *What information is missing?* · *How can you get it?*
🎩	Red Hat	· Express your gut feelings · *What are your fears, likes and dislikes?*
🎩	Black Hat	· Be pessimistic · *What are the downsides and risks?*
🎩	Yellow Hat	· Be optimistic · *What are the benefits to be gained?*
🎩	Green Hat	· Focus on alternatives · *Are there any new options?*
🎩	Blue Hat	· Focus on control & progression · *Which hat do I wear?* · *What else should I consider?*

Step 1. Present a problem/issue to the group. Tell them that they are going to think about it from a variety of perspectives. There will be 6 types of thinkers - those who are in those roles will only address the issue from that particular perspective. The facilitator should initially explain to the participants that they are going to view the problem in six different ways.

White Hat. Discuss the facts and other objective information about the problem. "I think we need some white hat thinking at this point..." means "Let's drop the arguments and proposals and look at the data base".

Red Hat. Share feelings and emotions about the issue. "Putting on my red hat, I feel this is a terrible proposal.2

Black Hat. Present negative aspects, or worst-case scenarios, regarding the situation. The devil's advocate or why something may not work.

Yellow Hat. Consider positives, or advantages, of the situation. Why something will work and why it will offer benefits.

Green Hat. Consider creative ideas that come from looking at the problem in a new way. This is the hat of creativity, alternatives, proposals, what is interesting, provocations and changes.

Blue Hat. Sum up all that is learned. "Putting on my blue hat, I think we should do some greener hat thinking at this point."

Step 2. Then the team starts focusing the discussion on a particular approach. The team members deliberately choose which hat they want to start with. For example, if they choose the blue hat, the discussion may start with everyone assuming the Blue hat to discuss how the meeting will be conducted and to develop the goals and objectives. The discussion may then move to Red hat thinking in order to collect opinions and reactions to the problem. This phase may also be used to develop constraints for the actual solution such as who will be affected by the problem and/or solutions. Next the discussion may move to the Yellow and then the Green hat in order to generate ideas and possible solutions. Next the discussion may move between White hat thinking as part of developing information and Black hat thinking to develop criticisms of the solution.

Step 3. After developing a set of solutions, the participants examine the set critically and choose one solution.

For example, take the following problem into consideration and how each thinking hat addresses it using different views.

Example – Students are talking while their teacher is talking

White hat – factual (state the facts)
- Students are talking while the teacher is talking,
- There is noise and therefore other students are distracted and can't hear the teacher,
- Students don't know what to do once instructions are given,
- Many students become distracted off the task resulting in the failure to complete work.

Red Hat – emotional (state the emotions),
● The teacher feels offended,
● Students become frustrated because they can't hear directions,
● Those talking enjoy joking around and being heard,
● It represents emotional thinking.

Black Hat – critical (negative aspects)
● Time is wasted,
● Learning is compromised,
● Those speaking feel that listeners do not respect them and do not wish to hear what they are saying.

Yellow hat – positive (positive aspects)
● Everyone is able to say what is on their minds,
● It can be fun,
● Not only the 'smart kids' get to speak,
● One doesn't have to wait to share their ideas and therefore risk forgetting some potentially important information.

Green hat – creative (creative ideas that originate as a result of seeing information in a new light)
● Teacher will be more aware about the amount of time they spend talking,
● Teacher will try to incorporate interaction from a variety of different students rather than just the 'smart kids',
● Students will resist the urge to say whatever is on their mind. They will think about what they have to say and whether it is relevant to the topic,
● Students will take into account whether their comment will interfere with other people's learning.
Blue hat– process control (ensure each hat effectively gets the big picture)
● Teacher learns that they need to monitor the amount of time that they spend talking within the classroom;
● Teacher needs to involve all students into discussions,
● Teacher needs to recognize that some students need thinking time before responding. Allowing these students time to compute solutions promotes wider participation and increased learning,
● Students realize that their talking makes the speaker feel unappreciated and disrespected,
● Students realize that their comments are jeopardizing the learning of other individuals,
● Students realize that talking out of turn demonstrates a lack of self-discipline and that not all comments require sharing.

Tips and tricks
Use different types of grouping learners applying this technique. Learners will first work with members of their own group, wearing the same colour hat, developing their role further by brainstorming words and expressions. Then they will regroup into multi-coloured hat groups with learners wearing hats of each of the six colours. They will discuss a list of questions for a limited time. During the discussions they will take on the role they have been given. Explain that in this lesson the discussions are going to be a bit different because it won't be 'them' who is speaking. They will each have a role. Give learners some discussion questions and a limited time to discuss them. They should discuss each question in turn, in their hat-wearing roles. Monitor and observe the groups as they speak and help where necessary. This will make your task a lot easier. The main idea is to have the group "wear only one hat at a time".

Discussion questions will very much depend on the class, their interests, levels and ages. Use discussion questions from your course books, look for discussion topics online at a website like esl discussions or write your own. By assigning hats to members in a discussion group, the learners must take on that hat's role and provide input based on that perspective.
It is often useful to start out a discussion with everyone wearing a white hat so the issue can be sorted out logically, and then assign different colour hats among the group. Midway through the discussion, the hats can be shuffled. A Thinking Hat discussion can be used in face-to-face, online, synchronous, or asynchronous learning environments.

SCAMPER
SCAMPER is an acronym for seven techniques; (S) substitute, (C) combine, (A) adapt, (M) modify, (P) put to another use, (E) eliminate and (R) reverse.
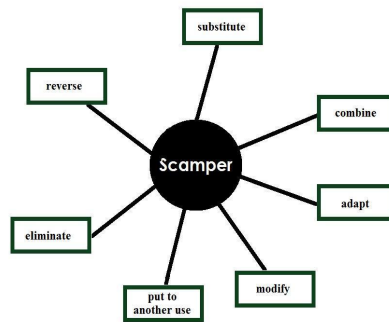
Description

What is this technique about

This brainstorming technique can help to come up with new ideas when it seems impossible to come up with anything new. The Scamper technique helps you generate ideas by encouraging you to think about how you could improve already existing ones by asking questions about it. Using this technique, you can explore problems from seven perspectives: substitute, combine, adapt, modify, put to another use, eliminate and reverse. These questions help you come up with new creative ideas. Also, the technique is useful for improving the recent ones.

Where does it come from

SCAMPER was proposed by Alex Faickney Osborn in 1953, and was further developed by Bob Eberle in 1971 in his book "SCAMPER: Games for Imagination Development".

For which purposes it is used

The SCAMPER brainstorming technique uses a set of directed questions to resolve a problem (or meet an opportunity). The Scamper technique can be used both for reading and writing, improvising short stories is more effective in developing critical and creative thinking.

Implementation

At any point in a creative-thinking situation, alone or in a group, novel solutions emerge when those involved force themselves to think in an arbitrarily different way. For that reason, using any or all of the seven thinking approaches listed below will help those who use them produce surprising and sometimes very useful results.

Here are some possible issues /questions for each perspective (they may be completely different depending on the topic /idea /subject /product you are analyzing). The questions were created by Alex Osborn and adapted for literary analysis:

Substitute
● What materials or resources can you substitute or swap to improve the novel solutions?
● What other novel solutions or process could you use?
● What rules could you substitute?
● Can you use this product somewhere else, or as a substitute for something else?
● What will happen if you change your feelings or attitude toward this novel solution?

Combine
● What would happen if you combined this product with another, to create something new?
● What if you combined purposes or objectives?
● What could you combine to maximize the uses of this novel solution?
● How could you combine talent and resources to create a new approach to this novel solution?

Adapt
● How could you adapt or readjust this product to serve another purpose or use?
● What else is the novel solution like?
● Who or what could you emulate to adapt this novel solution?
● What else is like your novel solution?
● What other context could you put your novel solutions into?

● What other novel solutions or ideas could you use for inspiration?

Modify
● How could you change the shape, look, or feel of your novel solutions?
● What could you add to modify this novel solution?
● What could you emphasize or highlight to create more value?
● What element of this novel solution could you strengthen to create something new?

Put to Another Use
● Can you use this novel solution somewhere else, perhaps in another industry?
● Who else could use this novel solution?
● How would this novel solution behave differently in another setting?
● Could you recycle the waste from this novel solution to make something new?

Eliminate
● How could you streamline or simplify this novel solution?
● What features, parts, or rules could you eliminate?
● What could you understate or tone down?
● How could you make it smaller, faster, lighter, or more fun?
● What would happen if you took away part of this novel solution? What would you have in its place?

Reverse
● What would happen if you reversed this process or sequenced things differently?
● What if you try to do the exact opposite of what you're trying to do now?
● What components could you substitute to change the order of this novel solution?
● What roles could you reverse or swap?
● How could you reorganize this novel solution?

The Scamper technique also can help in analyzing the literature. American satirist, critic, short story writer, editor and journalist Ambrose Bierce has said that "there is nothing new under the sun but there are lots of old things we don't know." Using and invoking this methodology we can turn old knowledge into new insights just by changing the point of view.

Example
As an example, we can take the story of The Three Little Pigs, which everyone knows very well. Let's do the first step – let's substitute.

Substitute the story of The Three Little Pigs
The substitute technique focuses on the parts in the story, service or solution that can be replaced with another or changed with another. By substituting we can come up with very new ideas to understand much better the story we are analyzing. Also, it helps to create our own story, to be creative and original and to get out of the box, which is blocking us. It challenges our current way of thinking.

Typical questions: What can I substitute to make an improvement? What if I swap this for that and see what happens? How can I substitute the place, time, materials or people?

We can replace the material from which the piggy house was built
We can turn a wolf to be a good character
We can turn the little pigs into bad characters
We can choose the wolf not to blow the house, but to try to push it or similar.

Other steps / questions (eg., modify, eliminate or combine) can help us rehearse the story by cutting it and gluing it completely differently.

Materials needed in this case, the book of the Tree Little pigs, a paper, a pen (or a computer), a scissors, a glue.

This technique can be used both for coaching and for assessment purposes by students and teachers.

Tips and tricks
Selected literary work and questions depend on the goals of the teacher. This technique can be used in different ways or combined with other methods. The teacher chooses by him- or herself what fits best for what he or she has done in class. Each step of this technique needs to be assessed with reference to specific learning topic or goal. This technique requires courage and creativity. Not every idea you generate will be viable, but this is an opportunity to discover a new perspective.

Design thinking

Is "an approach that can be used to consider issues and resolve problems more broadly than within professional design practice, and has been applied in business and to social issues"

Originally it was used in many cases to design products, now it is used to tackle big problems in all spheres, education in particular.

Design thinking – a new technique in methodology that provides a solution-based approach to problem solving.

Description
What is this technique about

Contemporary education is aiming not only at forming certain competences, but at equipping students with 21st century skills. It requires change of the approach we teach our students from instructivists to constructivists, with cognitive development and individual construction of knowledge are emphasized. Students are to investigate, analyze, think critically and solve problems moving from ideas to experiences.

That's where design thinking can come to use. Being a creative interactive technique, it fosters students' critical thinking and develops communicative competence, since it requires much collaborative work. As stated by its founder David Kelley, this technique can lead to creative confidence. "It (…) can unlock mind-set shifts that lead people (…) to see themselves as creative".

Where does it come from
Design Thinking emerged from an exploration of theory and practice, in a range of disciplines and sciences, as a means of addressing the human, the technological and strategic innovation needs of our time. In the struggle to fully understand every aspect of design, it's influences, processes, and methodology, in the 60's, efforts were made to develop a science out of the field of design, by applying scientific methodology and processes to understanding how design functions.

For which purposes it is used
Design thinking challenges students to fully use their mental capacities, be creative designing meaningful solutions, motivates their further studies and investigations.

Diagram 1. Design thinking process.
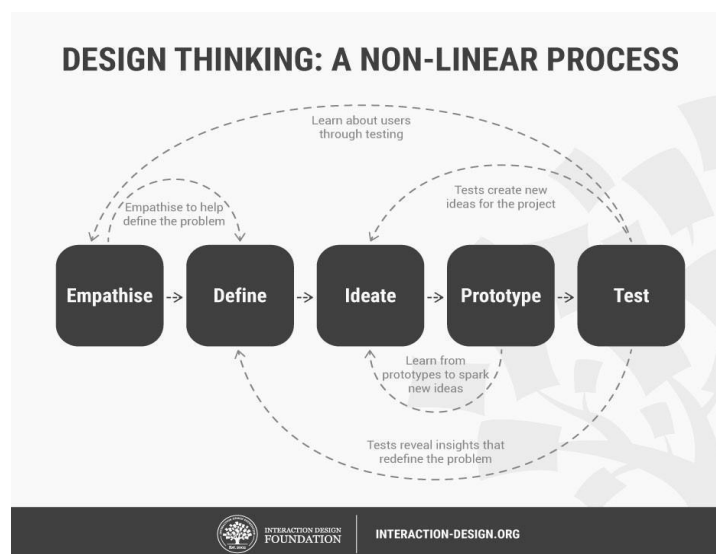
Source: Interaction-design.org

Implementation
The best way to encourage students to think creatively is to evoke their motivation to study the subject and proceed

with teaching in the student-centred manner. Nowadays, design thinking is one of the most used frameworks for encouraging students to start exploring, empathizing, innovating, and prototyping.

Design thinking is implemented through the following stages:

Stage 1. Empathy
It is used to show students how to investigate and analyse the essence of any problem, to find out what the real cause of problem can be, taking information straight from the source. The goal of this stage is awareness – students might conduct interviews, read articles, watch videos, study the problem.

Stage 2. Define
On this stage the students are taught to analyse while working with the data and redefining the problem. They show the results of their work to peers, constantly giving and receiving feedbacks from their peers and the teacher.

Stage 3. Ideate
On this stage students apply the newly acquired knowledge to potential solutions, they brainstorm and generate ideas.

Stage 4. Prototype
On this stage a physical form of the solution should be presented by the students. It can be a digital work or a tangible product, but it's based on the results of their own investigations.

Stage 5. Test
It's the stage of the prototype presentation. Students check what's working and fixing what's failing.

Another advantage of the technique is that if the prototype doesn't work, the learners can go back to any of the previous stages.

Tips and tricks
Don't give your students a ready answer, but guide them, showing the way how to find the right answer on their own. Choose authentic materials for design thinking, it can help foster students' intrinsic motivation. Avoid getting stuck with your previous work when it comes to ideas. The first stage of design thinking aims at real understanding of the problem before attempting to create ideas. Encourage learning through doing. Tell students to stop overlooking things and put their ideas into use. Whatever ideas your learners have, they should apply them practically and see how they work. Ask your students to present their ideas not only verbally, but via pictures, metaphorically. Visual aids are a great source for communicating the information, they pave the way for creative thinking.

Value Grid
Also known as value chart or box method.

Description
What is this technique about
In mathematics education, especially at the level of primary school, the value grid method (also referred to as the box method) is used to introduce multi-digit multiplication calculations (i.e. those larger than ten). Although less efficient than the traditional method, it is less prone to mistakes by the students, and as nowadays most students will use a calculator for multiplications, the method is more reliable to make them familiar with the topic.
Place value charts or grids teach students how to count higher values and develop greater number awareness. Creating such a chart requires the student to have knowledge of the underlying place value system.
In values education it is referred it is used to reflect, think and spark the discussion on specific issues. It allows to visualise the opinions and thoughts of others, but also to reflect upon own values, and where they come from.

Where does it come from
A value grid model proposes a complex framework to analyse and understand value creating activities among different actors. Its origin lies in the business world, where it was proposed to analyse the complex environment of a company's value chain.
The use of the grid method has been standard in mathematics education in primary schools in the UK since the early 1990s but can also be found in various curricula across the globe.

For which purposes it is used

In mathematics, the place value chart reinforces the essential mathematical concept of place value while helping students to read large numbers. In value education, it reinforces reflection on values, how they are created / established and to understand the different values underlying in the society. A value(s) grid helps students clarify the degree of commitment they feel to different issues.

Implementation
In mathematics, the place value chart is a series of adjacent columns with headings that designate their value. From the right to the left the headings are "Ones", "Tens", "Hundreds", "Thousands", and so on as high as "Billions". A place value chart or grid can be used in several ways, from simply dictating the numbers and asking the students to put them in the correct column, or combining it with questions (e.g. how many people live in our country, city). It can even include reading an article in a magazine or newspaper that involves large numbers and asking the students to identify the numbers and place them in the chart or connect it with daily activities involving money.

Understanding place value precedes:
● an understanding of using zeros as place holders,
● knowing what numbers after a decimal point represent,
● being able to order numbers in terms of size,
● an ability to estimate and round numbers,
● a true understanding of how multiplying and dividing work,
● why we "carry" in column addition and subtraction,
● In values education, a values grid is used to become more aware of one's own values and help students realise that others may hold different but equally acceptable values. A value grid is created which on the left-hand side identifies the issues, and in the columns each student writes down privately the a few key words that summarise their position on stand on that particular issue.

The value grid initially is only for numbers but is more used in primary education for this purpose and much less in secondary. A further search gave some examples of the use of value grids also for other purposes and more appropriate for secondary. Both were kept in this guidebook as depending on the school system the value grid for numbers is still appropriate.

Table 2 Grid for values, example:

Opinion/Issues	Issue 1	Issue 2	Issue X
Student 1			
Student 2			
Student X			

To practice this technique, begin by making a list of three issues or questions that are of concern to you and that you think it is important for students to discuss about.
Examples could be:
● Should the parkland close to the centre of the city be re-developed to house landless people from nearby rural areas?
● Should girls receive equal education opportunities to boys?
● To what extent should governments give financial incentives to overseas companies to encourage them to invest in local industries?

To see whether the opinions expressed by the students can be considered "true values", ask each to think critically about the following questions:
● Do you cherish your position, are you proud of it?
● Have you publicly affirmed your position?
● Have you chosen your position from alternatives?
● Have you chosen your position after thoughtful consideration of the pros and cons and the consequences?
● Have you chosen your position freely?
● Have you acted on or done anything about your beliefs?

● Have you acted with repetition, patterns or consistency on this issue?

This reflection can be done in smaller groups by the students themselves or with the teacher, in smaller groups or one-on-one. After this reflection process, the teacher guides the discussion on the values underlying the positions and opens the discussion on the topic.

The use of value grids can also be transferred to other areas and topics where it is important to identify a relationship between 2 variables. Think about analysing the costs of a specific intervention where the students are asked to value the costs of implementing a specific measure, for instance, related to education in economy.

An example could be the analysis of the costs of implementing measures to improve education, where students are asked to think about how a specific measure would affect the quality and costs for society. An example is the table, where the analysis is done for the quality of education. The green areas indicate which, from a cost perspective point of view, are the measures to be implemented, the ones in red are those which should not. The white ones are neutral. It is the discussion on this implementation which allows to understand the value (in cost or benefit terms) of certain measures.

Table 3 Grid for values, example

Quality of education	Costs of education decreased	Cost of education unchanged	Cost of education increased
Improved	Use of digital tools instead of books	Use of whiteboards instead of blackboards	Digital literacy training teachers
Unchanged	No more paper		Digital infrastructure
Worsened		Risk for the "don´t haves" at home	Digital tools used inappropriately

In general, this type values exercises are more appropriate for educational topics related to values, society, etc., where it can be used to analysis the effectiveness of proposed solutions / ideas. It can help spark discussions about values. The different creativity techniques, such as the World Café can be used to fill it in jointly with the students, or the table can be partially filled by the teacher and then further refined in the classroom with the students.

Tips and tricks
There are many resources, such as templates and examples, available on-line, which you can use. They are shared through different fora and social media, thus select the one you feel most comfortable with and which you think would fit your students' interests best.
The Grid can be used in different ways, as a lesson starter, input, working wall or during group activities.
Grids can be helpful for students with dyslexia / dysgraphia who have difficulties in lining up place values.

Transformational learning
Transformational learning, Transformative Learning

Description
What is this technique about
Transformational learning involves individuals gaining an awareness of their current habits of mind and resulting points of views, accompanied by a critique of their underlying assumptions and premises. It also includes an assessment of alternative views and a decision to renounce an old view in favour of a new one, or to make a synthesis of old and new, resulting in more dependable knowledge and justified beliefs to guide action.
The theory has two basic kinds of learning: instrumental and communicative learning. Instrumental learning focuses on learning through task-oriented problem solving and determination of cause-and-effect relationships. Communicative learning involves how individuals communicate their feelings, needs and desires.
Transformative learning theory was originally based on a research study of women returning to college as re-entry students. At that time, it was called perspective transformation, and it was a stage-based, largely rational description of

how these women experienced a transition in their lives.

Where does it come from
The Transformational Learning Theory originally developed by Jack Mezirow is described as being "constructivist, an orientation which holds that the way learners interpret and reinterpret their sense experience is, central to making meaning and hence learning".

For which purposes it is used
Transformational teachers create experiences in their classrooms, melding the art and science of any subject and making their students care about learning. The key to transformational teaching is not reacting, but rather a grinding obsession with analysis and preparation.

Implementation
Teachers who want to utilize transformative learning in their classrooms can consider implementing the following opportunities with their students.

Providing opportunities for critical thinking: teachers can create opportunities for critical thinking through providing content that introduces new ideas. Students then need the opportunity to engage with new content through journaling, dialoguing with other students, and critically questioning their own assumptions and beliefs.

Providing opportunities to relate to others going through the same transformative process: transformation often happens in community as students bounce ideas off one another and are inspired by the changes friends and acquaintances make.

Providing opportunities to act on new perspectives: finally, research indicates that it is critical for teachers to provide the opportunity for students to act on their new-found beliefs. There is some indication that true transformation cannot take place until students are able to actively take steps that acknowledge their new belief.

To foster transformative learning, the educator's role is to assist learners in becoming aware and critical of assumptions. This includes their own assumptions that lead to their interpretations, beliefs, habits of mind or points of view as well as the assumptions of others. Educators must provide learners practice in recognizing frames of reference. By doing so, educators encourage practice in redefining problems from different perspectives. The goal is to create a community of learners who are united in a shared experience of trying to make meaning of their life experience.

Educators need to provide learners with opportunities to effectively participate in discourse. Discourse involves assessing beliefs, feelings, and values. Learners are able to validate how and what they understand as well as develop well-informed judgments regarding a belief. Educators can encourage critical reflection and experience with discourse through the implementation of methods including metaphor analysis, concept mapping, consciousness raising, life histories, repertory grids, and participation in social action.

The role of educators is also to set objectives that include autonomous thinking. By fostering learners' critical reflection and experience in discourse, autonomous thinking is possible. It is the role of the educator to promote discovery learning through the implementation of classroom methods such as learning contracts, group projects, role play, case studies, and simulations. These methods facilitate transformative learning by helping learners examine concepts in the context of their lives and analyse the justification of new knowledge. The educator's role in establishing an environment that builds trust and care and facilitates the development of sensitive relationships among learners is a fundamental principle of fostering transformative learning.

The educator becomes a facilitator when the goal of learning is for learners to construct knowledge about themselves, others, and social norms. As a result, learners play an important role in the learning environment and the process. Learners must create norms within the classroom that include civility, respect, and responsibility for helping one another learn. Learners must welcome diversity within the learning environment and aim for peer collaboration. Learners must become critical of their own assumptions in order to transform their unquestioned frame of reference. Through communicative learning, learners must work towards critically reflecting assumptions that underlie intentions, values, beliefs, and feelings. Learners are involved in objective reframing of their frames of reference when they critically reflect on the assumptions of others. In contrast, subjective reframing occurs when learners critically assess their own assumptions.
The role of the learner involves actively participating in discourse. Through discourse, learners are able to validate what

is being communicated to them. This dialogue provides the opportunity to critically examine evidence, arguments, and alternate points of view which fosters collaborative learning.

Tips and tricks
1. Have students ask questions and solve real-world problems.
2. Questions should require students to: analyse, synthesize, create, empathize, interpret, reference background knowledge, defend alternative perspectives, and determine what they know and don't know.
3. Organize students into learning groups. Shift from Solo to Collaborative Lesson Design.
As teachers gain fluency in using Padlet, Google Hangouts, Evernote, Skype, Dropbox, Hackpad, Google Drive, and Chatzy, collaborative planning is becoming second nature.
4. Make learning segments manageable through modelling and mastery.
5. Guide, facilitate, challenge, and support.
6. Create Presentations That Do More Showing and Less Telling.

On the rare occasion that transformational teachers lecture, they are sure to use visuals, created with tools like Canva and Pic Monkey. Using pictures can "banish boredom", asserts Dan Roam, author of Show and Tell. To keep pace with the 30 percent of students who access online videos for homework assistance, teachers' materials have become more interactive and optimized for mobile device consumption.

The educator must encourage equal participation among students in discourse. One strategy is to encourage procedures that require group members to take on the roles of monitoring the direction of dialogue and ensuring equal participation. Educators can also encourage dialogue from different perspectives through controversial statements or readings from opposing points of view. It is necessary that the educator avoids shaping the discussion.
The educator also serves as a role model by demonstrating a willingness to learn and change. As a result, professional development is important to assist educators in becoming authentic and critically reflective.

World Café Dialogue
Also known as "World Café" or "Knowledge Café".

Description
What is this technique about
It is a structured conversational process to share knowledge between smaller groups of people that are discussing a topic at different tables. The idea is to create a "café" type of atmosphere to facilitate the conversations. It starts off with a pre-defined set of questions or challenges, but the outcomes or solutions are not decided in advance and are an outcome of the collective discussion process, in which the group members move between the tables to continue the discussions and reflections from the groups that preceded them.

Where does it come from
In 1995 a group of business and academic leaders met at the home of one of them to discuss a specific topic in a large circular setting, when it started raining, people broke out into smaller groups to find cover. Conversations went on in smaller groups, and the participants started taking notes on the paper tablecloths. Spontaneously they started moving around the tables and found out that recollecting the results from the different discussions allowed to identify patterns in their thinking.
World Café got its name because it imitates a café setting where small groups (4 or 5 people) are all conversing together around tables.

For which purposes it is used
The goal of the technique is to see different views and drill into new ideas related to one or more challenges, but it can also be used to think critically about a particular context, circumstance or situation. It is especially well-suited for larger groups.
The participants gather in clusters of small groups and engage in conversation about an issue that matters to them or some work they are trying to do together. It is an ideal way to find out what a group is thinking and feeling about a topic.

Implementation
There are some design principles which are to be considered:
1. Set the context: think carefully about what you want to achieve, as knowing the purpose of the activity will allow you to select the elements needed to realise the goals, e.g. what questions will be most relevant, what sorts of results will

be more useful, etc.

2. Create a hospitable space: you need to create an environment in which the students feel safe and comfortable, inviting them to think, speak and listen creatively. The physical set up of the classroom can contribute to create this type of environment.

3. Use powerful questions: this type of questions attract collective energy, insight and action. Depending on the aim and time available you can focus on one single question or use progressive questioning to deep-dive into them through several conversational rounds.

4. Encourage all to contribute: it is important to encourage all students to participate actively and contribute providing their perspectives and ideas, however you should also allow someone who merely wants to listen to do so.

5. Connecting different and diverse perspectives: the moving around the tables, an integral part of the technique, increases the possibility for new insights and ideas as students carry key ideas across the tables and exchange perspectives.

6. Listening for patterns and insights: the quality of the listening taking place during a World Café is a key factor (if not the most important one), as it allows to detect patterns and get a sense of a connection. Encourage your students to listen to what is not being spoken, apart from what is being shared.

7. Share collective discoveries: the last phase is the process is called "harvest" and is the process of making the pattern of the World Café and the contributions visible to all. Ask the students to reflect and think about the questions and conversations that went on in the smaller groups and what has been reflected on the graphical representations. Ask them to share their thoughts and insights with the rest of the group.

Taking these principles into account you can now start designing and implementing your own World Café.

The World Café addresses one overarching theme, which is divided into a limited set of subthemes. During the introduction the teachers presents the overall theme and the subthemes to the students. The students are then divided into smaller groups and sit around a table (in a similar matter as they would in a café or bar).

The students need to be instructed, so as the make sure that they understand that the aim is not to criticize other people's ideas, but to try and find as many good / relevant ideas as possible.

Diagram 3 Etiquette example

Café Etiquette

Focus on what matters

Contribute your thinking

Speak your mind and heart

Listen to understand

Link and connect ideas

Listen together for insights and deeper questions

Play, doodle, draw – writing on the tablecloths is encouraged!

Have fun!

In each of the tables, a host is assigned (which can be a student or other teachers) who is responsible for the subtheme assigned to that particular table / group. The table is to be covered with blank paper, so as to allow the students to take notes during the discussion. The host is in charge of ensuring that all comments, ideas and suggestions are written down on the paper.

The smaller groups at each table then discuss for about 10 minutes the challenge, problem or situation identified in their subtheme. After these 10 minutes the groups move tables (preferably clockwise or counter-clockwise for easier tracking of the movements).

However, the hosts do not move and stay at "their" table throughout the full duration of the session. When the new group arrives at "their" table, the hosts are responsible for summarising what the previous group has discussed, and includes the new group in this discussion. Again, the participants take notes on the papers (which are now already filled with comments, ideas and suggestions from the former group) and the host again takes notes. The rotation time for the table is 15 minutes (5 minutes more than the initial one as the host needs to explain the discussions from the former group(s)).

After the rotation, the host of each table summarises the results, which are then analysed and commented by the teacher.

The idea is that each group visits each table once, therefore it is advisable that there are maximum for tables, with 1 host and 5 people per group approximately.

Tips and tricks
There are alternative methods, depending on the time available and age of the participants, for instance, instead of moving the groups around in a specific order and keeping the groups stable across the session, one could allow that the students choose which sub-theme or table they want to join. In this way new groups are formed continuously. This approach, however, is only advisable when working with older students.

Another option is to ask participants not to speak but write down (or draw) their ideas and points concerning the discussion, they can either write their own or react to the one of a participant. This approach works better in a setting where the students are younger, or not used to open discussions. It can also work better when there are not sufficient students, capable to take on the role of hosts.

Experiential learning

Description
What is this technique about
Experiential learning is the process of learning through experience and is also defined by "learning through reflection on doing" (Patrick (2011). It is a way of active learning, which allows the students to see the relevance of the topic/theme, thus contributing to an increased motivation to learn.

Experiential learning contains several elements which provide the opportunity for the students to engage at intellectual, emotional or social level:
● Reflection
● Critical analysis and synthesis
● Initiative taking
● Decision making
● Accountability (for the results).
In short, the activities are to allow the students to seek answers to questions, take decisions, assess risks and justify their decisions/answers.

Where does it come from
The general concept goes as far back as Aristotle who already stated that for things we have to learn before we can do them, we learn by doing them. However, it was not until the 1970s that it became a specific educational approach.

For which purposes it is used
It supports students in applying their knowledge and understanding of the challenge, problem or issue at hand, the role of the teacher is to facilitate and guide the learning process. The learning takes place when the students reflect and assess the decisions they have taken, taking into account the consequences of their decisions, the mistakes made, and the successes achieved.

The benefits are:
Motivational: students become more motivated when they see the direct links to what they learned in class with their prior experiences and knowledge and future activities.

Transferral: it allows students to create a connection between things they already know with the new item you are teaching them.

Memory retrieval enhancement: connecting what you teach a student with their own experience enhances long-term memory retrieval.

There are 2 main types of experiential learning: field-based experiences and classroom based learning. The first one is the oldest type and includes activities such as practicums and internships, the second one can take many different

forms, from role playing, to case studies or different types of group work.

Implementation
An activity in itself is not experiential but the way it is designed determines if it is considered experiential learning. To transform your teaching activities into experiential learning components you need to:

Identify the needs of your students: think about your students and the background or context they come from, what skills do they need to develop in your course/subject and what content they already master.

Identify the course components: which are taught in a more effective way by making them experiential and think about how making them experiential matches the objectives of the curriculum or course, and how they would complement them. A good idea is to think of a topic that will capture the attention of your students (maybe looking at what is happening in their community or even asking them can be helpful).

Identify the link of the activity with your students: Make sure the student understands the reason behind the activity, to ensure they see why they are involved, but also ensure that the activities are appropriately challenging them (too low may lead to boredom, too high to frustration). Also create an environment in which they are allowed to make mistakes (mistakes are learning opportunities and maybe even more relevant than successes).

Identify challenges and potential issues: think about the challenges related to your activity. For instance, can you do it alone or do you need help from others (teachers, parents, community etc.), and if so, how to ensure the support. Or do the students need to bring materials, and what happens if the materials are not available, etc. You need to think about what could go wrong and plan a contingency.

Identify the assessment method: Once you have decided which activities to transform and how, you also need to reflect upon the grading criteria and evaluation method you would use in assessing the students learning.

Tips and tricks
Take time to prepare properly for the experience: you need time to create the right environment and climate and assess and anticipate any challenges and difficulties you might come across.

Prepare a proposal for the work and tasks which guides the students to accomplishment of a specific aim or project.

Be aware of your own role in the process, your role is organizational and coordinating, providing guidance and feedback.

Be very aware and focused during the whole process, it is a challenge to keep all students working at the maximum of their capacities, so be vigilant for any signs of de-concentration or less motivation.

Brainwriting
Brainwriting. 6-3-5 Brainwriting is also called 635 Method or Method 635.

Description
What is this technique about
Brainwriting is a creativity technique similar to Brainstorming. It can be used as an alternative or to complement brainstorming, and often yields more ideas in less time (Wilson, 2013).
The idea of brainwriting is based on the belief that the success of an idea generation process is determined by the degree of contribution and integration to participants' suggestions. It may help to overcome the possible creativity barriers caused by interpersonal conflicts or different cultural backgrounds of the participants.

Where does it come from
There are many varieties of Brainwriting. 6-3-5 Brainwriting (or 635 Method, Method 635) is a group structured brainstorming technique aimed at aiding innovation processes by stimulating creativity. The name Brainwriting 6-3-5 comes from the process of having 6 people write 3 ideas in 5 minutes. The technique was developed by Bernd Rohrbach who originally published it in a German sales magazine, the Absatzwirtschaft, in 1968.

For which purposes it is used
One of the main advantages of using 6-3-5 brainwriting is that it is a very simple method and therefore is easy and

quick to learn. No particular training for the supervisor is required. Brainwriting can be used instead of brainstorming in the following situations (Wilson, 2013):

● When some participants are shy, and you don't want the loud or more powerful ones to intimidate others,
● When you want to give more time for the participants to formulate their thoughts,
● When expressing bold ideas, different from those of the majority or from the leadership of the group, is not well accepted,
● When the issue to be discussed is sensitive, e.g., related to bullying at school,
● When you have limited time - brainwriting allows generating ideas faster than brainstorming,
● When you don't have an experienced moderator - which is essential for good brainstorming but less important in brainwriting,
● When the group is too large for effective brainstorming. Brainwriting can be implemented at a conference of 500 people simply by leaving a large card on each seat, asking a question, and then having each audience member pass a card to someone else, and then repeat three times for a minute of writing.

Brainwriting can be used to understand how different groups view an issue. You may conduct separate brainwriting sessions with different internal groups. For example, if you asked groups to brainwrite about "What are the most important problems faced by our school?" you might find that different stakeholders have very different perspectives. Brainstorming encourages sharing and exchanging knowledge, so different perspectives can be well exploited. Differently than brainstorming, it assures participation from all members and at the same time avoids issues of domination over introverts that are also likely to feel freer about expressing their own ideas.

All ideas are recorded on the worksheet(s), which means that nobody has to be in charge of taking notes throughout the session; it is possible to keep track of the author of a particular idea. It is a very productive method that allows generating many ideas in a short time.

Brainwriting may not be suitable if the participants find it difficult to express ideas in writing or if more social interaction and/or teambuilding is desired (Wilson, 2013).

Implementation

In a brainwriting session, the moderator asks the participants to write down their ideas about a particular question or problem on sheets of paper in a set period of time (e.g. 5 minutes); then each participant passes their ideas on to someone else, who reads the ideas and adds new ideas. After the same period of time, the participants are asked to pass their papers to others, and the process repeats. After 10 to 15 minutes, you collect the sheets and post them for immediate discussion .

In Brainwriting 6-3-5 session, each person has a blank 6-3-5 worksheet (below).

Table 4 Sample brainwriting worksheet

Problem Statement: How to...			
	Idea 1	Idea 2	Idea 3
1			
2			
3			

Everyone writes the problem statement at the top of their worksheet (word for word from an agreed problem definition). They then write 3 ideas on the top row of the worksheet in 5 minutes in a complete and concise sentence (6-10 words). The participants are invited to consider out-of-the-box ideas and to combine ideas with others. The ideas are written in silence to prevent the participants from influencing each other. At the end of 5 minutes, each participant passes their form to the student on their right, who then reviews the ideas and adds new ones. The process continues until the worksheet is completed.

There will now be a total of 108 ideas on the 6 worksheets.

The moderator can write one idea (which can be read by one of the participants) on the board and invite the participants to add similar ideas from their sheets. Similar ideas should be sorted into groups to have a better overview, discussed and assessed for feasibility, how much they contribute to solving the problem/achieving the objective

defined in the beginning of the exercise. Everybody should have an opportunity to contribute to the discussion. In the end, all the sheets are collected to capture all the ideas.

The process can be adapted to include fewer ideas and over a shorter time. Usually some participants are deep thinkers, and some are introverts, this strategy levels the playing field for all.

Tips and tricks

Brainwriting helps students that have less self-confidence to express their ideas in a safer way. If you have technical possibilities, try using a digital tool for the Brainwriting process, e.g. Padlet. The method may be more difficult to use with students with learning difficulties or lack of cooperation skills. If some children are uncomfortable with this activity, they can be assigned the role of "paper passers". For students who are still working on their writing skills, ask questions that can be answered in one word or by drawing a sketch.

5W1H

"5W1H" is the creativity technique that is also called "Five Ws and How", "Five Ws and H", "Five Ws" or "Six Ws".

Description

What is this technique about

The Five Ws and H are questions the answers to which are considered basic in information gathering or problem solving.

These questions are sometimes called journalistic questions because all news stories are supposed to answer them.

The reasoning behind this technique is that any analysis of facts and information is only complete when we can answer 6 questions:

● Who (was involved)?
● What (happened)?
● Where (did it take place)?
● When (did it take place)?
● Why (did that happen)?
● How (did it happen)?

Where does it come from

This standard series of questions has been used since antiquity. The Greek rhetorician Hermagoras of Temnos (1st century BC) defined seven "circumstances" as sources of information about an issue: who, what, when, where, why, in what way, by what means.

A famous poem of the English journalist and writer J. R. Kipling, accompanying the tale of "The Elephant's Child" opens with:

I keep six honest serving-men
(They taught me all I knew);
Their names are What and Why and When
And How and Where and Who.

For which purposes it is used

This creativity technique is a standard tool used by journalists as a method of inquiry and is sometimes called "reporter questions". The aim of this inquiry approach is to understand the given problem more precisely to be able to define it better and to find a solution.

The method can be used in different circumstances, eg.:

● as a checklist to keep in mind in a discussion or when you want to generate further questions,
● to generate data-gathering questions, during the early stages of problem solving,
● to generate idea-provoking questions, to help build on existing ideas while brainstorming, brainwriting or another similar technique.

At school, this technique can be used when teaching storytelling or story writing, as well as in practicing brainwriting, brainstorming, and in different situations that require to identify, analyse and resolve a problem.

Implementation

In the process, the participants are supposed to successively pose the six questions regarding the problem to be solved:

● Who?
● What?
● When?
● Where?
● Why?
● How?

Each question should have a factual answer; none of the questions can be answered with a simple "yes" or "no".

Walking through the Five Ws and 1 H allows us to see if we left anything out.

The Five Ws and H are often used in the problem exploration phase to improve the understanding of the challenge before searching for solutions. Here are some questions that could be asked:
1. What is the problem (or need for creativity)?
2. Why is this a problem or an opportunity?
3. When (or by when) do we need to have solved it or found a creative response?
4. Who is responsible for this, who can be involved in this or have an idea that can help us to find a solution?
5. How will we evaluate which is the best solution if we come up with alternatives? How will we implement it? How will we find the resources?
6. Where will these solutions be applicable?

The technique can be used in many ways, e.g.:
By an individual: asking him or herself the questions and writing down the answers.

By a team, in the way of brainwriting: the team sits around a table and circulates six sheets of paper titled What? Why? When? Who? How? Where? Person "A" starts with sheet "What", person "B" with sheet "Why", person "C" with sheet "When" and so on. The first person writes down some ideas about "What", then passes the sheet to the next person who adds another couple of suggestions and passes to the next person, etc. Once the six sheets of paper have gone around all members of the group you will probably have 12 suggestions per sheet and 6X12 for the whole exercise.

By a team, in a way of brainstorming: the facilitator stands in front of a flipchart, asking the questions and trying to write quickly to keep up with the ideas as they are shouted out.

Practice the technique in a classroom (literature, foreign language lesson, etc.):
● Find answers to the 5 W's and H questions in a news story
● Choose an interesting news story from a newspaper, blog, or Website
● Read the story closely
● The students search for and record answers to the 5 W's and H questions
● Ask the students to share the answers with the classmates to help them understand the story

Tips and tricks
The technique is motivating as it helps the students to feel more creative and innovative.

If there are too many "Why" questions (especially if you are asking the problem-owner Why? Why? Why?), the person being questioned can become irritated and defensive.

"How?" "When" and "Where" questions bring forth descriptive answers that allow everybody listening to visualise observable evidence that can be worked upon to come up with a solution.

The technique can be modified as necessary, e g. to ask not just factual but also higher order questions (who should..? why would..?)

Lateral Thinking
Lateral thinking is sometimes also called creative thinking, structured creativity or sideways thinking.

Description
What is this technique about
Lateral Thinking is a set of processes that provides a deliberate, systematic way of thinking creatively that results in

innovative thinking in a repeatable manner. Lateral Thinking is about thinking "outside the box", using inspiration and imagination to solve problems by looking at them from unexpected perspectives. Lateral thinking involves discarding the obvious, leaving behind traditional modes of thought, and throwing away preconceptions.

As Shane Snow, a well-known researcher of Lateral Thinking says, "before the Earth was a sphere, it was flat". Before it revolved around the sun, the universe revolved around it. With every such advance we broke assumptions that most people didn't question. Breakthroughs only occur when assumptions are broken. In creative fields, this often happens when people break rules that aren't actually rules at all, but rather simply conventions.

Whereas the logical or vertical thinking carries a chosen idea forward, the sideways ("lateral") thinking provokes fresh ideas. While vertical thinking tries to overcome problems by meeting them head-on, lateral thinking tries to bypass them through a radically different approach. Both types of thinking can be valuable at different phases of a project or another activity. After lateral thinking is used, it is always possible to come back to vertical thinking with a number of new ideas.

There are four main categories of Lateral Thinking tools as defined by Dr Edward de Bono:
● Idea-generating tools which break free your current thinking patterns from their usual pathways,
● Focus tools that open your mind to new possibilities in the search for new ideas,
● Harvest tools that help maximize value is received from the idea generating output,
● Treatment tools that ground the creativity process by making the wild ideas and make them fit the real-world constraints, resources, and support.

Where does it come from
The term Lateral Thinking was invented by Dr. Edward de Bono in 1967. It was first described in the book called "The use of Lateral Thinking". Thinking is a skill and there are tools and techniques to improve it.

For which purposes it is used
Lateral thinking techniques allow us to be creative "on demand". These techniques can be used by individuals and groups as a way to develop creative and innovative ideas. Lateral thinking is used for two main purposes:
Problem solving and definition - lateral thinking helps discover alternative ways of defining the problem and start thinking about it in a broader sense, which may lead to better solutions and even inventions. A problem can't be solved unless it is discovered and known. Linear styles of thinking sometimes look at a problem in too shallow or too narrow scope, overlook layers of the problem, or completely miss its real source. Lateral thinking has the potential to get past this limitation.
Finding new ways. We all have our own way of thinking and doing things, we naturally fall into patterns and repeat procedures. We go back to methods and approaches that have worked for us in the past. This may produce good results, however quite likely there are other, better ways to do things more effectively and efficiently, which can be discovered by using the techniques of Lateral Thinking.
In school environment, lateral thinking techniques can be used:
- to enhance creativity and problem solving skills of students and teachers;
- as a fun and stimulating way to start or finish lessons or have a break (see the links to lateral thinking riddles in the Resources).

Implementation
Lateral thinking is not an easy concept. One of the best ways to learn and to teach it is through examples. An example of lateral thinking adapted from Shane Snow :
Pretend that you're trapped in a room with only two exits. The first exit leads to a room made from a magnifying glass, and the blazing hot sun will fry you to death. Behind the second door there is a fire-breathing dragon. Which door do you go through?
Answer: The first door, of course. Simply wait until the sun goes down.

Here are five steps to learn to think more laterally with this or any other challenge:
1) List the assumptions
When trying to solve a problem, write out the assumptions inherent to the question. In the case of the puzzle above, the list might include the following:
●You want to get out of the room,
●You have to choose one of the two options,
●You have to do something now,

●Room One will kill you no matter what (or so we think!),
●Room Two will kill you no matter what.

2) Verbalize the convention
Next, ask yourself the question, "How would a typical person approach this problem?" Then ask yourself, "What if I couldn't go this route?"

3) Question the question
Ask yourself, "What if I could rewrite the question?" In the trapped room scenario, you might rewrite the question to ask, "Will you go through one of the exits?" or "Will these really kill you?" or "Do you really need to go through one of them?"

4) Start backwards
Often the route to solving a problem is revealed when you start with the solution first and try to work backward. For example, ask the question "How would I get into a trapped room if it were adjoined by a room made out of a magnifying glass?" Reframing the challenge allows to set aside some details or to see new ones that help to find the answer.

5) Change perspective
To start lateral thinking, you might pretend you were someone else trying to solve the problem. If you were a magician or a scientist, how would you escape from the fire room? Or how would the fire-breathing dragon answer this question?
When introducing lateral thinking in a classroom, it's best to start with simple puzzles http://www.free-for-kids.com/brain-teasers.shtml as a warm-up and then move to more difficult ones, slowly making the students familiar with the way of thinking in a way they probably haven't tried before.

The activity can follow this process:
● Select a challenging problem/ puzzle, but the one that you think your students may be capable of solving.
● Solve it the way you like or accept the suggested solution.
● Write the problem you select on the board, show on the screen using a computer and projector, distribute it on slips of paper or just tell it to the students.
● Announce that you will take questions about the problem that can be answered with a yes, a no or irrelevant.
● Based on the solution you have in mind, answer the students' questions.
● When the students solve the problem, or you present the solution as they could not find it, discuss the assumptions, prejudices and or stereotypes that had to be recognised in order for the solution to appear.

Lateral thinking takes time to learn. After practicing with riddles/ examples, a learner should identify issues and problems in their real life and find some time for lateral thinking activity.

Tips and tricks
Use lateral thinking to encourage creativity and innovation and improve collaboration and problem solving.

Use funny puzzles for train the brain to use lateral thinking.

Brainstorm regularly to increase students' ability to look beyond the obvious.

Encourage students to question their thinking, welcome mistakes and celebrate better solutions.

Be patient as lateral thinking is not easy to learn and requires a lot of practice.

Teacher Self-Assessment

Portrait
Is a self-assessment method based on teacher's narrative of experiences in class, used to create his/her professional identity in accordance with specific competences and values. "Portraiture as a method for professional identity development': a new holistic way of a feasible (self-assessment) instrument that should provide (longitudinal) meaningful information for learning." (Cees van der Vleuten, Maastricht University, The Netherlands).

Description

What is this technique about

After each of the different actions in class, the teacher writes down a self-assessment as a kind of story, a narrative. In fact, she or he creates a portrait of the way she or he has acted in the class, how the students reacted, what the problems were, how she or he helped them, etc.

The teacher uses the following competences and values to create a professional identity.

Expertise: the teacher has the knowledge and the experience in leading an activity in class.

Research: the teacher uses his/her research skills to create a better world for everybody, allowing students to discover, explore and experience new ideas and create a new path into their future.

Reflection: the teacher reflects about every action in class and is more focused on his/her qualities instead of weaknesses. He or she is creating the conditions for optimal learning and has a good relationship with the students. Literacy and communication: the teachers communicate in mother tongue and foreign languages and shows his/her digital literacy.

Entrepreneurship: the teacher is an educational entrepreneur and seeks ways to improve the learner's learning paths, competences and skills.

Co-creation and working together: the teacher uses cooperative learning to boost knowledge, close the achievement gap, improve students' relations and create a more kind and caring school community. Global citizenship: the teacher supports global thinking with ethical thinking, sustainability, ecology to create a world fair and just for today and tomorrow.

Innovation and creativity: the teachers support students' readiness for tomorrow's 21st century key competences and is creative and innovative.

The teacher uses the 8 criteria to tell a story and at the same time creates a narrative portrait of who he/she is and how he/she acts in the classroom. Each time the teacher makes such a portrait, this is a data point of the assessment.

Furthermore, this information is rich and meaningful.

Each portrait the teacher makes, shows new experiences.

Each portrait is unique because the teacher gradually changes and tells new stories.

Each portrait provides more information.

Each portrait gives more pixels for the ultimate portrait of the teacher's professional profile.

These changes are only possible by teachers with a growth mind-set. An appreciative approach and careful judgement will help teachers to grow in beliefs and practice (van der Vleuten, 2014).

Source: Cees van der Vleuten, Maastricht University, The Netherlands

For which purposes it is used

Portraits can be used both for coaching and for assessment purposes by students and teachers.

Implementation

Making a portrait can be digital (computer) or by pen and paper. The teacher can make different portraits as a self-assessment after having done an activity in class.

Every assessment is but one data point and shows the progress of learning. The information should be rich (quantitative, qualitative) and meaningful. It is suggested to use different types of portraits: a self-portrait, a portrait made by the students or made by the other teachers.

Another example is the framework elaborated by Bloom and his collaborators consisted of six major categories: Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation. The categories after Knowledge are presented as "skills and abilities" with the understanding that knowledge is the necessary precondition for putting these skills and abilities into practice. While each category contains subcategories, all are lying along in a continuum from simple to complex and concrete to abstract. The taxonomy is popularly remembered according to the six main categories.
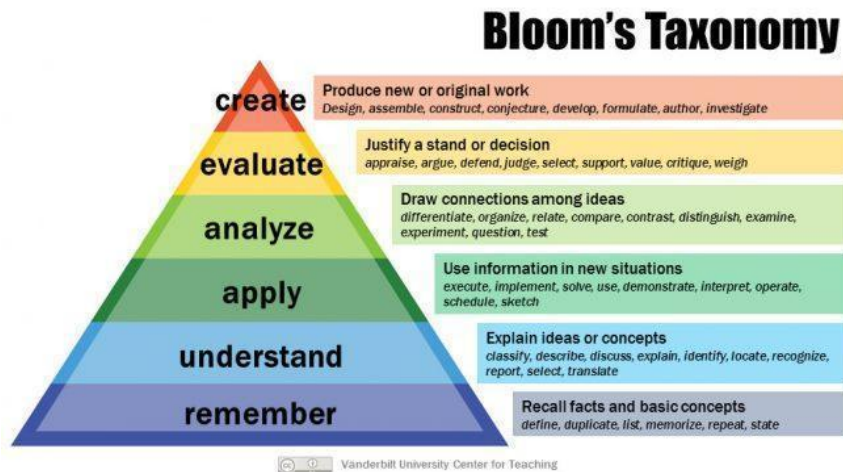

Source: Armstrong, P. (2010). Bloom's Taxonomy. Vanderbilt University Center for Teaching. Retrieved [23/08/2022] from https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/.

In teacher training reflection exercises are crucial, as they help to follow "prepare - give a lesson - reflect - analyse - action plan to do better - do it again" learning path. The learning Diary is one more example. The Learning Diary offers the teacher insight in what he has and has not learnt after an activity.

Important questions are:
What have I achieved?
How did I learn?
How did my skills improve?
How did I feel about it?
How shall I proceed the next time?
How can I use this in the future?

Source: https://www.brookes.ac.uk/students/upgrade/study-skills/reflective-writing-gibbs/
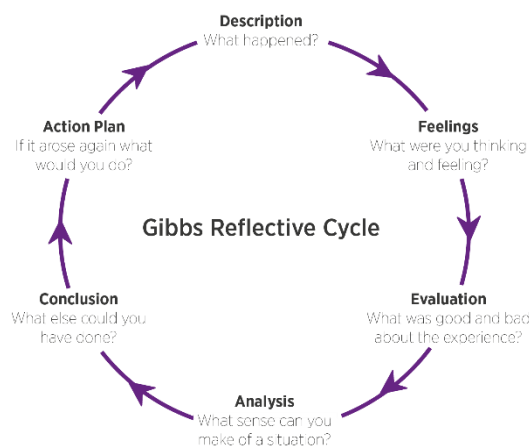
Tips and tricks

Below is a sample grid that can be used in teacher training to evaluate students when they are doing a project for self- and peer evaluation.

Different criteria table for the evaluation of the teacher

Level of proficiency (from low to high)	1 (low)	2	3	4 (high)
Expertise				
Research				
Reflection				
Literacy and communication				
Entrepreneurship				
Co-creation and working together				
Global citizenship				
Innovation and creativity				

Students Assessment Methodologies

Portfolio
Is an assessment tool that shows the learning process of a teacher. By collecting the results of activities in class, the teacher manages and monitors own progress and achievement of goals, as well as own strengths and weaknesses. Portfolio definition: from portare (carry) and foglio (sheet of paper). Synonyms: file, binder, ring binder, document case.

Description
What is this technique about
"A purposeful collection of student work that exhibits the student's efforts, progress, and achievements in one or more areas. The collection must include student participation in selecting contents, the criteria for selection, the criteria for judging merit and evidence of student self-reflection." (Paulson et al., 1991)

In general, a portfolio contains:
● a set of pieces of creative work intended to demonstrate a person's ability to a potential employer,
● two types of information: activities/achievement and evidence for reflection.

Where does it come from
An artist's portfolio is an edited collection of their best artwork intended to showcase an artist's style or method of work. A portfolio is used by artists to show employers their versatility by showing different samples of current work. Typically, the work reflects an artist's best work or a depth in one specific area of work. Historically, portfolios were printed out and placed into a book. With the increased use of the internet and email, however, there are now websites that host online portfolios that are available to a wider audience. Sometimes an artist's portfolio can be referred to as a lookbook .

For which purposes it is used
The portfolio is an assessment tool that shows the learning process of a teacher. By collecting the results of the different actions in class, the teacher manages and monitors own progress and achievement of goals, as well as own strengths and weaknesses.
The portfolio is a kind of holistic assessment where self and peer-assessments are playing significant role in future learning. It creates a culture of supporting learning and developing personal understanding. The portfolio is an assessment tool of products, but moreover an assessment of process. It is development portfolio of creativity and innovation which shows the teacher's learning process, a map that contains documents, reports, tasks, reflections, evaluations, etc.

Implementation
The class organization of the portfolio assessment can be virtual or on paper. More than one teacher can be involved in the assessment as well as different stakeholders.

The portfolio gives proof that the learning of the teacher takes place:
● by experimenting,
● from and with others,
● from different sources of information and by creatively combining experiences from (working) life,
● in the context of working life, by applying knowledge, by doing,
● in a multidisciplinary manner, by combining different competences,
● in a problem-based manner,
● in a goal-oriented manner.

The portfolio contains samples of the teacher's or student's work and shows growth over time. An important keyword is reflection: by reflection on his own work, the teacher starts to identify the strengths and weaknesses of his/her own work (self-assessment). The weaknesses become improvement goals. The reflections should say something about why the teacher has made the choices in the portfolio, and describe the method used to arrive at the final result.

A portfolio is mostly digital, and it contains:
● a title page, a table of contents, a literature list,
● a description of the work done,
● a description of the evolution of the work,
● the necessary evidence (a selection of documents, papers, reports, etc.),
● a reflection with a SWOT-analysis,
● a self-evaluation.

When the action in class is completed, the teacher as well as the students will have to run evaluation. For the self- and peer-assessment the student and the teacher have to use a checklist to evaluate themselves and each other.

The following standard criteria **FOR SELF AND PEER-ASSESSMENT** are being used in UCLL Teacher Training:

● Be committed (be alert, think together, be focused on the task).
● Take initiative (readiness to do different tasks).
● Be prepared (have targets and goals, do research and provide good and useful information).
● Bring structure in the results of the work (of what you have done) and present it in a clear way in the group.
● Give new ideas in a discussion.
● Be critical but in a positive way.
● Look for useful solutions, think positive and constructive, seek compromises.
● Give your own opinion in a clear but respectful way.
● Listen to what other students say and make a real effort to understand opinions.
● Have a positive attitude and bring atmosphere in the group: offer help and understanding, support and encouragement.

Every teacher trainer can select the items that are important for the group of students and the given task. He or she can also add criteria that are important for the subject.

To conclude and make SWOT analysis, the following self-reflection questions can be used:
● What are my strengths?
● What are my weaknesses?
● What am I going to do to become better?
● What am I going to do more?
● What am I going to do less?
● What am I keeping for the future?
● How am I going to make changes?

For the self-evaluation the teacher can use "The Evaluation Grid" (below) to evaluate the competence proficiency the students showed by using the creativity technique. This evaluation can also be carried out by other teachers that have been observing.

In teacher training the students often work in groups in interactive way. As a Self-Assessment the students have to fill in their level of proficiency and afterwards the group of students will discuss the results.

At the end the teacher trainer, who has been present during the discussion, will evaluate the students for each topic and will give a summative digit.

Level of proficiency for the 5 C's Table:

Level	4	3	2	1
Collaboration	Cooperation	Discussion	Side by side (in duo)	On their own
Communication	Stories Discussion	Dialogue	Presentation	Individually
Critical thinking	Evidence-based	Opinions	Uncertain belief	Seeing is believing
Content	Expertise	Making connections	Superficial understanding	Situation specific
Creativity & Innovation	Vision	In progress	Limited	Experimentation
Confidence	Dare to fail	Calculated risk	Uncertain	Ignorant

Source: Level of proficiency for the 5 C's. Author: Guido Cajot, UCLL, Talentis-project: "Entrepreneurship in Primary Education"

Tips and tricks
Each portfolio entry needs to be assessed with reference to specific learning objectives or goals. The portfolio must have realistic targets and not become a pile of documents without any relevance.

The portfolio shows the learning path of the teacher each time that he or she adds the assessment to the portfolio.

Portfolio assessment requires thorough preparation. To start with the portfolio assessment the extent of the content should be specified as well as what and how much content should be included in the portfolio. The criteria for the assessment must also be clear. Also, the way the assessment can be carried out must be carefully chosen. The teacher uses the assessment that fits and publishes the content and assessments in his/her portfolio.

Portfolio assessment requires a good planning in advance.

Zero measurement
Refers to the evaluation of the starting point of the process. The method is not complete without a post measurement, which is conducted at the end of the process to measure the impact of the specific activity. More specifically, it refers to the moment and process for measuring the impact a specific activity has had on a person, organization, or circumstance.

Where does it come from
Although there are many references to zero measurement but none with regards to the origin for application in education.

For which purposes it is used
It can be conducted in a variety of ways, and depends on several variables:
● is it the teacher that is assessed (i.e. whether the teacher has adequately acquired the knowledge on a particular creativity technique and/or has properly implemented the technique),
● is it the students that are the subject of the assessment, evaluating whether they have acquired the knowledge included in the curriculum,
● the school's assessment and certification processes.

The decision how to conduct the zero-measurement point can thus vary greatly per school. The following tools are normally used to conduct the zero measurement:
● an oral assessment,
● a 360-degree feedback assessment,
● a self-assessment,
● or a combination of these.

Of course, there are other methods that can be used; however these are the most common ones in zero measurement in training and education.

Implementation

A zero measurement is not complete without a post measurement, which is conducted at the end of the process. Whatever tool is selected to conduct the zero measurement, the same tool should be used to conduct the post measurement, to enable the comparison necessary for the assessment of the learning process, and the impact it has had.

If the process stretches over a longer period of time, a mid-term measurement might be included, which assesses the learning process with the aim of identifying gaps, pitfalls or issues, and correct them.

Oral assessment is better suited for the assessment of the teacher in secondary education (and not the students), it consists of a school director, another teacher or any person who is considered competent for accrediting the knowledge acquired, sitting down with the teacher and start a dialogue/conversation, for example:

Zero-measurement – here the teacher is asked to reflect on the topic/subject, e.g. on a specific creativity technique, and tell what they think it is about and how it should be implemented. They should also indicate the aimed impact on the students.

Mid-term measurement – here the teacher is asked to reflect on what he/she knows now about the technique and how it is being implemented in practice. They should also indicate whether the aimed impact is to be realised as foreseen.

Post implementation measurement – here the teacher is asked to reflect on what he/she knows after finalising the learning process on the technique and what was learned during the implementation process. They should also indicate the impact on the students and how they measured it.

Although there is no specific duration for this exercise, on average it takes between 45 minutes and 1,5 hours.

The person conducting the oral assessment then prepares a report, based upon the answers (and observations) on the acquisition of the knowledge and assesses whether the teacher has acquired the skill.

360-degree feedback assessment, also known as a multi-rater or multi-source feedback assessment, is a way to receive actionable feedback for professional growth and student achievements. Although it can be used for the assessment of students, it is better suited for the teachers in the secondary education setting. The method provides the teachers with confidential, anonymous feedback from those around them (i.e. peers, educational staff, management members and students themselves). The key word is actionable, as within a zero-measurement setting this type of feedback assessment not only provides the point of departure but also knowledge about the actions to be taken in the implementation process of a particular innovation or creativity technique. It is based upon questionnaires and their analysis.

Here are some items to bear in mind:
● Consider the issues and dilemmas you might face in the process (ensuring anonymity; choosing the right competencies; ensuring the validity of questions; choosing the right type and number of questions; choosing the right number and a suitable cross-section of respondents; approaching respondents; overcoming objections to participation; dealing with negative comments and handling feedback).
● The purpose of your questionnaire is to generate feedback relating to the core competencies of innovative/creative teaching, i.e. describe the professional attributes, knowledge and understanding and skills.
● You need to decide on the rating scales to be used in the questionnaires, bear in mind the kind if data you want to draw from the analysis to be carried out.

There are many examples of these type of questionnaires out there, just surf around and find the ones which you like. The assessment is normally done twice: once at the start to establish the zero measurement and once at the end to evaluate the progress made. The analysis of the difference between both assessments will allow to evaluate the teacher and their learning process.

Self-assessment is probably the most used one, as it is the easiest to implement, and can be used for a wide variety of purposes. It is the comparison between the answers provided before the start of the learning process and those provided after the process is finalised. It can be used for assessment of the teachers but also of the students, the comparison of the latter can provide insights into whether the teacher has been effective and has had a real impact on the learning of the students. With regards to the students, if the measurement can be compared to a comparative peer group where the innovation/technique has not been applied, ever further conclusions can be drawn on the impact of the innovation/technique itself on the students' learning process.

The self-assessment is normally a form of a questionnaire or checklist, in which the teacher is asked to rate their level of knowledge regarding the topic, this can be done by asking, for instance, whether or how they consider their knowledge on the particular topic, e.g. from beginner to expert, or the frequency with which they apply certain activities or use certain components in the classroom. In the frames of TEACH INC, the teacher's self-assessment should focus on the assessment of their mastering of a particular innovation or creativity skill, students are to be questioned about their own perception of their mastery of the subject taught.

Tips and tricks

Below is an example table of a specific circumstance but may assist in the comprehension of the technique. The table should be adjusted to suit the specific subject of the teacher (e.g., history).

Evaluation of Digital storytelling	A	B	C	D	E	F	NR
The student approaches the world, and more particularly the artistic expression of it, with an open attitude (surprised, curious, unbiased) and uses his/her senses intensively.							
The student is more or less familiar with elements and techniques of music, drama, art, physical expression, artistic language, music, media.							
The student tries to express his/her experiences and emotions in an authentic and original way and can enjoy this.							
The student is contemplative: he/she allows himself/herself to be surprised by 'works of art' of himself/herself, his/her peers, real artists. He/she is sensitive to the symbolism of image, sound, word, movement and shows appreciation and respect.							
The student communicates his feelings, emotions and impressions about the work of art. He/she is open to other students who voice their impressions and contemplations.							
The student can investigate other perspectives: he/she is open to alternative ideas and opinions, will examine them and consider the value of the alternatives.							

A = excellent

B = very good

C = good

D = satisfactory

E = sufficient

F = insufficient

NR = not relevant

Peer assessment

Refers to the method where individuals assess each other's work and provide feedback using a predetermined list of criteria. In the school education process to the method where students assess each other's work and provide feedback using a predetermined list of criteria. The method can be used with secondary school students of any age, as well as in primary school.

Where does it come from

The interest in peer assessment (as well as self-assessment) is partly driven by the changes in teaching and learning - the growing emphasis on the active engagement and responsibility of students in their own learning and a collaborative model of teaching. If we believe in dialogue and co-construction of knowledge, then the principles of constructionism should also be considered in the assessment processes, inviting the students to participate.

For which purposes it is used

Peer assessment can be used to:
● enhance students' active engagement with their studies, especially goal setting, clarifying objectives, taking responsibility for learning,
● increase students' confidence and self-esteem,
● achieve deeper understanding of the subject matter, skills, and processes,
● lift the role and status of the student from passive learner to active learner and assessor,
● increase the amount of feedback students receive,
● involve students in critical reflection and teach them constructive criticism,
● improve students' writing skills.

Assessing the work of others can help students to develop their understanding of the intended learning outcomes and the assessment criteria. Research has shown that learners make more progress when they are actively involved in their own learning and assessment.

Developing effective peer assessment takes time and effort, however this assessment strategy can be very effective in motivating learning. Furthermore, peer assessment processes can help students learn how to receive and give feedback which is important for their subsequent working life.

How to implement it
There are many ways to implement peer assessment. The process could be organised as follows:
● Explain why peer assessment will be used.
● Determine assessment criteria aligned with learning outcomes.
● The teacher can do this alone but it is a good practice to discuss the criteria with students. Discussion helps better understand the criteria, allows for feedback and reflection, and therefore may help increase the quality of assessment and deeper learning.
● Divide the students into small peer assessment groups, 2-4 students per group.
● Explain the process of peer assessment and feedback, e.g. how to give feedback that is constructive, detailed, linked to assessment criteria, objective, focused, etc. Clarify how much time the students will have to perform the assessment.
● Present the students with a checklist to use as a reference for assessment.
● Let the assessment begin. Monitor the progress and support the students, especially if it's one of the first times they are involved in the assessment activity.
● Monitor the quality of the feedback; try to ensure that it's constructive. This is usually done by the teacher, but students could be involved as well, providing feedback on feedback.
● Compare the peer assessment with teacher's feedback.
● Provide feedback to students regarding their assessment.
● Apply the suggestions from peer assessment in the process of revision and improvement of the work assessed.

A good tool that can help students in peer assessment is the so-called Ladder of Feedback (by Harvard University):
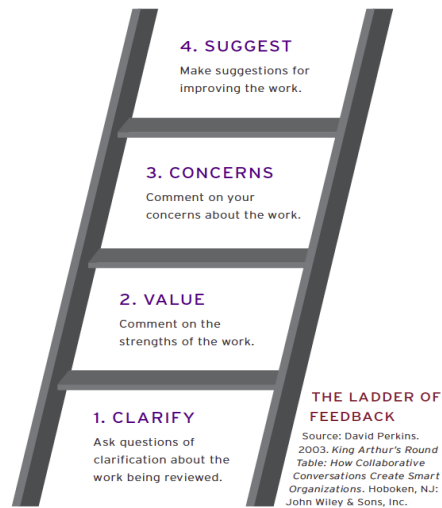
Source: The Ladder of Feedback by David Perkins (2003)

If peer assessment is followed by teacher assessment, there must be sufficient time between both, so that students can revise their paper on the basis of peer feedback, and then hand it in to the teacher.

The focus is on providing opportunities for the students to be able to identify what constitutes a good (or poor) piece of work. Student involvement in the development and comprehension of assessment criteria is therefore important. Students need to receive some training on how an assessment is to be performed and to understand the terms and concepts that they are expected to use. They need practice to gain confidence in peer assessment and to become more competent at it.

Pupils involved in peer assessment often state that they do not feel entirely comfortable with publicly evaluating their peers. It is found that peer-pressure might cause stress and a lack of accuracy of the assessment. Anonymity within peer assessment can be considered as a solution.

What is the way of scoring the student's results: digits or verbal?

There are different opinions on whether peer assessment should include grading. Although some teachers have had success with peer grading, turning peer assessment into peer evaluation is risky and may lead to negative attitudes towards the peer assessment process. In general, peers should provide feedback; teachers should provide grades.

Introducing marks creates a set of complex issues, but if you decide to get peers to award marks these marks should be only one of a number of different marks awarded to a specific assignment or process. If students are going to give marks, this can be done either by raising scorecards or by providing grades anonymously.

Materials which can be needed are:
● sheets of paper and pens or pencils in the case of written assessment,
● post-it(s) are used in some types of peer assessment,
● score cards may be used if assessment includes grading.

The assessment is organised in small groups, chairs/tables in circles. The students take part in assessing each other's work, in some cases they may be involved in scoring the other students. The assessment takes 15-30 minutes, depending on the size of the student group.

Tips and tricks
Preparation for peer assessment/ training the students on how it's done is a very important step - provide guidelines, checklists, timescale.

Discuss the assessment criteria with students and if possible, involve them in defining the criteria.

If it's the first time the students get involved in peer assessment, offer a demonstration session and answer questions.

Use anonymous examples of students' work from previous years for demonstration and learning purposes.

Put emphasis on positive feedback, constructive criticism and what students have learnt from their peers.

Consider giving feedback on feedback - evaluate the assessment.

Teaching Methodology

It is important for a teacher and/or an on-site facilitator to be able to develop their own learning activities while engaging in the implementation of the EDU Europe Diverse and United learning approach. This process, among others, will enable the teacher to:

- Create their own repository of learning activities,
- Effectively and quickly browse their learning activities repository based on specific criteria (e.g., learning objectives, learning time required, resources, etc.),
- Share their learning activities with their peers and vice versa,
- Constantly improve different aspects of the activities,
etc.

Learning Activity Template

To support a uniform way of recording the learning activities, the project suggests a learning activity template and specifies the different parts it should have. These parts are the following:

Overview:

In this part teachers are asked to describe the learning activity and its phases along with structured information that will help in the classification of the activities (age group, theme, duration, etc.).

1. Overview			
Title			
Driving question or Topic			
Ages, Grades, … Duration,	Ages:	_____ grades	____ learning hours
Timeline, Activities	__ * 45 minutes	____ phases	
Curriculum Alignment Contributors, Partners Abstract - Synopsis	Brief learning activity and the phases of its implementation.		

Objectives and methodologies

Teachers are asked to identify the learning goals or objectives of the learning activity and relate them to competences. More specifically, teachers will express what students will be able to do, following their participation in the activity and upon its completion in terms of *knowledge – skills – values.*

Furthermore, teachers will define the learning outcomes using action verbs (e.g., students will be able to *identify…, express…, search…,* etc.).

Finally, in this section, teachers will also have to mention prior knowledge and skills of students, describe any possible instructional differentiations that may be needed to address specific needs of certain students, and indicate the suggested learning strategies and methodologies.

2. Objectives and methodologies	
Learning goals and objectives	*Identification of goals or objectives using appropriate verbs, related or corresponding to competences (knowledge – skills – values), what learner will be able to do after the activity.*
Learning outcomes and expected results	*Definition of the learning outcomes using action verbs*

Prior knowledge and prerequisites Motivation, methodology, strategies, scaffolds	*Prior experiences, knowledge, and skills the learners bring with them to this learning experience.* *Teaching strategies, approaches, methods and/techniques for achieving learning objectives and outputs (project-based, inquiry-based, problem-solving, gamification etc.)* *Instruction differentiation for students' needs (learning styles, multi-modal representations, roles to students etc.)* *Active students' engagement, individual-team-classroom work, scaffolding techniques etc.*

Preparation and means

In the third part of the learning activity template, teachers are asked to define and describe the preparation and the means/resources needed for the implementation in the physical or online classroom. The preparation focuses on the learning space and material by describing the procedures a teachers must follow. Furthermore, there is a subsection where the teacher can list the online/cloud tools and platforms that may be utilized both for an onsite and an online implementation.

3. Preparation and means	
Preparation, space, setting Troubleshooting tips Resources, tools, material, attachments, equipment Safety and health	*Procedures, spaces and material preparation* *Setting in classroom, outdoor activity, computer lab etc.* *Instructional sources and digital material with the related references needed for the implementation of the learning plan*

Cloud tools/platforms
If any…
	Cloud tools/platforms used to develop the learning and creativity plan
	   1. …
	   2. …
	   3. …
	   Etc.

Implementation

The final part of the template described the implementation of the learning activity. More specifically, it describes all of the different phases of the activity and the sequence that they follow. Its phase should be described clearly by stating its description, objective, type of instruction (e.g., presentation, hands-on team activity, etc.), duration, etc. The phases of the activity are listed in the sequence that they should be implemented. As an example, typical activity structure may be the following: introduction, theoretical knowledge presentation, team activity, students' presentation, evaluation.

In this section, teachers should also describe any reflection process they utilize as well as any techniques used to monitor students' learning progress.

Finally, teachers describe the use of any evaluation processes to assess students' ability to perform the learning objectives set in part 1.

4. Implementation	
Instructional activities, procedures, reflections	*Brief and comprehensive description of the creative activities, tasks or learning experiences (individual-team-classroom work)* *Phase 1:*

Assessment – Evaluation Presentation – Reporting – Sharing Extensions – other information	Phase 2: Phase N: Engagement and active participation through hands-on practices Students' feedback and reflection on their thinking processes or learning Monitoring students' learning and progress measuring Assessment and formative evaluation processes and rubrics to measure the students' ability to perform what was described in the objectives. Documents, outputs artifacts, products produced by the students with references, web links etc.

Useful Content Library

The purpose of the library it to act as a dynamic repository of learning content and useful resources. The main audience will be teachers and therefore the data recorded for each resource is meant to be used to facilitate teachers browsing of the resources and selecting the appropriate ones.

It is important to enable teachers to share resources therefore, as for the learning activities, it is important to ensure the uniformity of information using a common template

Library Item Template

Overview

This section hosts the main information regarding the resources and most importantly, the information that the teacher will utilize during their exploration of the library and in their effort to find the resources that will support their teaching in the classroom.

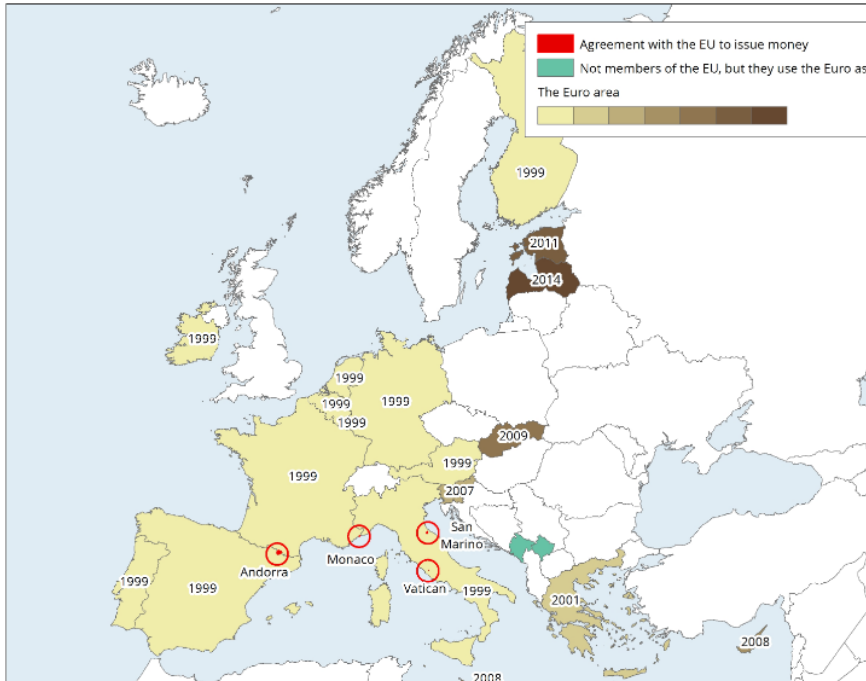| 1. Overview		
Title and Link.		
Type of resource (e.g., multimedia, text, application, digital repository, etc.)	Link:	
	Type:	Last checked:
Date of last check. Brief description of the resource.	Brief description of the resource.	

Additional Information

This section provides any additional information about the resource such as possible links with the project's learning activities, relevance to the country's national curriculum, ways of using it to enhance or facilitate the learning process, etc.

2. Additional Information	
Possible links to learning activities.	

Relevance with specific topics of the curriculum. Suggested use of the resource in classroom.	

Library Item 1 – Learn Europe – the Euro

1. Overview	
Title and Link. Type of resource (e.g., multimedia, text, application, digital repository, etc.) Date of last check. Brief description of the resource.	Learn Europe – the Euro

Link: http://www.learneurope.eu/index.php?cID=298	
Type: lesson structure (text)	Last checked: 17/10/2022

An example of a lesson about the euro currency.

Additional Information	
Possible links to learning activities. Relevance with specific topics of the curriculum. Suggested use of the resource in classroom.	It is a short text about the euro history and meaning, including some pros and cons debate proposition. The website provides links to other topcis related to euro currency, i.e. the info on European Central Bank. It also provides external links to documents and videos in many european languages. You can also find a map of Euro area. **THE EURO AREA** Source: European Central Bank and EU

Library Item 2 – Teaching the EU toolkit

1. Overview	
Title and Link. Type of resource (e.g., multimedia, text, application, digital repository, etc.) Date of last check. Brief description of the resource.	Teaching the EU toolkit
	Link: https://europe.unc.edu/toolkits/chapter-1/
	Type: lesson structure (text) / Last checked: 17/10/2022
	A very helpful toolkit, explaining the methodology of teaching about EU and providing ready-to-use lesson plans. Home / Teaching the EU Toolkits / Chapter 3: What is the European Union CHAPTER 3: WHAT IS THE EUROPEAN UNION WHY IS THERE A EUROPEAN UNION? **Key Points** • European integration resulted from a recognition that European countries should never go to war with one another again. • Bringing European economies and societies together requires coordination at the supra ("above") national level.
Additional Information	
Possible links to learning activities. Relevance with specific topics of the curriculum. Suggested use of the resource in classroom.	A toolkit on how to teach about the EU, consisting of 5 topics: Chapter 1: What is Europe Chapter 2: Who are Europeans Chapter 3: What is the European Union Chapter 4: EU-US Relations Chapter 5: Contemporary Europe The toolkit is designed to provide methodology on teaching these topics and provides external links to possible lessons structures.

Library Item 3 – Teaching the EU: Bringing Modern Europe to your Classroom

1. Overview	
Title and Link. Type of resource (e.g., multimedia, text, application, digital repository, etc.) Date of last check. Brief description of the resource.	Teaching the EU: Bringing Modern Europe to your Classroom
	Link: https://www.socialstudies.org/professional-learning/teaching-eu-bringing-modern-europe-your-classroom
	Type: webinar / Last checked: 18/10/2022
	A webinar about the methodology of teaching the EU Values. It lasts 1.5h and is an open access source.

National Council for the Social Studies Contact Us Log in About Advocacy Membership Professional Learning Publications & Resources **Key resources for teachers – Katie Lindner & Holger Moroff** • Lesson plans available online • "Teaching the EU Toolkits" • Local Study tours and Brussels Study Tour • EU2U briefings • europe.unc.edu	

Additional Information	
Possible links to learning activities. Relevance with specific topics of the curriculum. Suggested use of the resource in classroom.	You will learn about curriculum resources available for teaching the EU, and tips to implement these learning tools in your classroom. This webinar will provide you with the following tools and resources: ● Example lesson plans and activities ● Advice and best practices from other international high school teachers ● Access to the EU's library of resources and tools to facilitate learning and demonstrate the importance of the EU

Library Item 4 – Let's explore Europe!

1. Overview		
Title and Link.	Let's explore Europe!	
Type of resource (e.g., multimedia, text, application, digital repository, etc.)	Link: https://learning-corner.learning.europa.eu/play-games/lets-explore-europe_en	
	Type: online game	Last checked: 18/10/2022
Date of last check. Brief description of the resource.	An online game that can be played solo or in group. It is designed for primary school children. Available in English, contains a rulebook. Provides a link to a brochure, contributing more on the topic. The game is a quiz about the history, geography and culture of EU countries.	
Additional Information		

| Possible links to learning activities.

Relevance with specific topics of the curriculum.

Suggested use of the resource in classroom. | |

Library Item 5 – Languages take you further

1. Overview	
Title and Link. Type of resource (e.g., multimedia, text, application, digital repository, etc.) Date of last check. Brief description of the resource.	Languages take you further
	Link: https://learning-corner.learning.europa.eu/learning-materials/languages-take-you-further_en
	Type: brochure	Last checked: 18/10/2022
	A pdf brochure to download. It presents the basic sentences, i.e. greetings or numbers in every official European language. It is very clear and has some pictures, what makes it attractive for young children. It helps to compare the languages and see which ones are somehow familiar.
Additional Information	

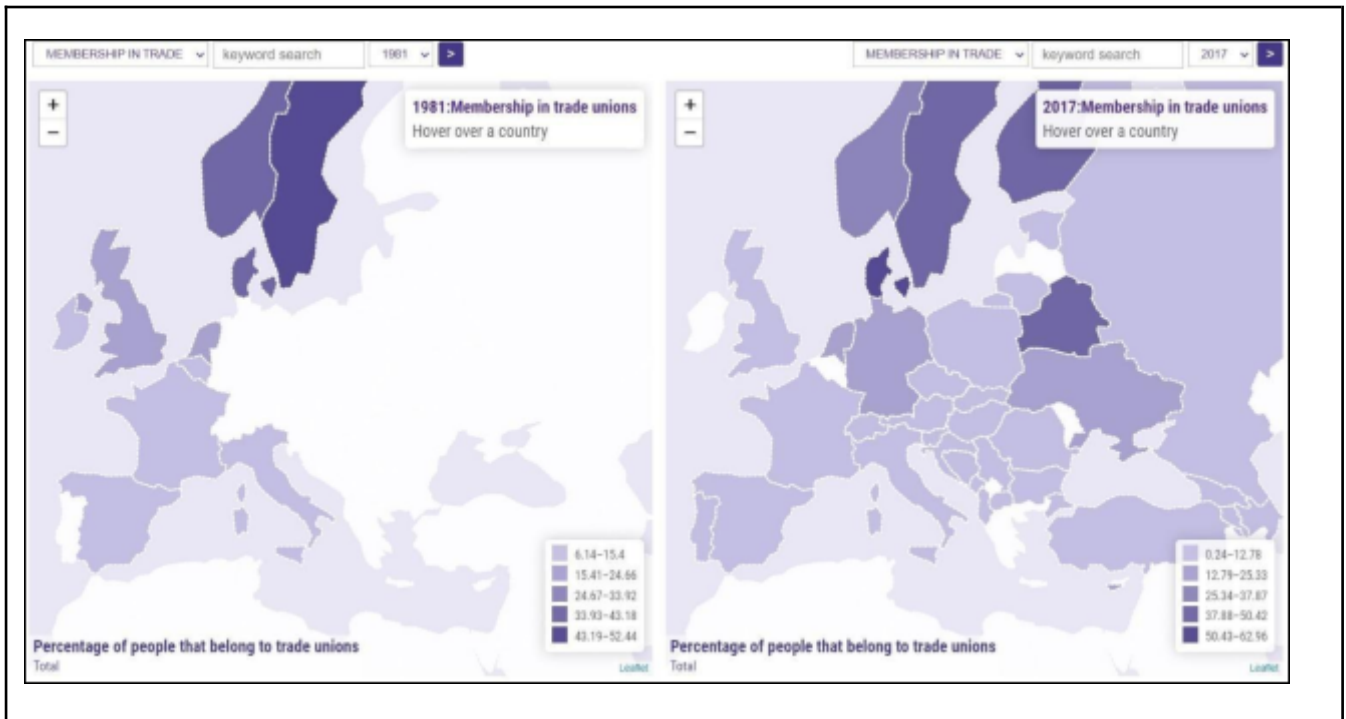| Possible links to learning activities.	
Relevance with specific topics of the curriculum. Suggested use of the resource in classroom.	

Library Item 6 – EVALUE map

1. Overview		
Title and Link.	EVALUE map	
Type of resource (e.g., multimedia, text, application, digital repository, etc.)	Link: Atlas of European Values	
	Type: interactive tool	Last checked: 13/10/2022
Date of last check. Brief description of the resource.	The tool consists in an interactive map displaying how Europeans think about a wide range of topics. It allows the user to compare these values across countries, time and between different groups in society.	
2. Additional Information		
Possible links to learning activities. Relevance with specific topics of the curriculum. Suggested use of the resource in classroom.	EVALUE (European Values in Education) offers teachers and students in secondary education interactive web tools and teaching materials that match curriculum need on contemporary topics like migration, democracy, solidarity, and tolerance. In particular, the interactive map can be used to adopt a comparative approach when deepening the said aspects. It allows the used to both compare Countries and periods and can be used in classroom as a powerful visual aid.	

Library Item 7 – Europe of Values

1. Overview	
Title and Link.	Europe of Values
Type of resource (e.g., multimedia, text, application, digital repository, etc.) Date of last check. Brief description of the resource.	Link: <u>A great educational game "The Europe of values" (coe.int)</u>
	Type: board game · Last checked: 13/10/2022
	This leaflet offers a board game as well as some pages containing information that can be used to prepare for playing the game or to build on what has been learnt. This is a great opportunity to combine classroom play activity with discussion about the core values that enable us to live together in society. The game includes 1 board for use by the class (A1 poster format), 48 cut-out cards, 6 playing pieces, 1 make-it-yourself dice, 1 diploma, and some advice for teachers.
2. Additional Information	
Possible links to learning activities. Relevance with specific topics of the curriculum. Suggested use of the resource in classroom.	The game has been developed for students at the end of primary and early secondary cycle (8-12 years) and information pages to prepare or complete the discovery. It allows teachers to share a fun activity in class while reflecting on the essential values for living together in society. Although this game also adapts to small groups from 2 people, it was designed mainly for classes, under the guidance of a teacher.

Library Item 7 – Let's explore Europe!

1. Overview	
Title and Link. Type of resource (e.g., multimedia, text, application, digital repository, etc.) Date of last check. Brief description of the resource.	Let's explore Europe!

	Link: <u>Let's explore Europe! (europa.eu)</u>	
	Type: e-learning platform	Last checked: 13/10/2022
	The platform provides teachers and educators with children-friendly games to test their knowledge about different facets of Europe and European Union: history, culture, geography, Countries, flags, coins, languages, monuments etc. It contains quizzes and visual games.	

2. Additional Information	
Possible links to learning activities. Relevance with specific topics of the curriculum. Suggested use of the resource in classroom.	The tool can be used to deepen children's knowledge of European Countries. It provides fun activities and images, which result children friendly and easily understandable. Quizz games can be used both individually or during group activities.

Library Item 8 – EU&ME

1. Overview	
Title and Link. Type of resource (e.g., multimedia, text, application, digital repository, etc.) Date of last check.	EU&ME

	Link: <u>Quiz (europa.eu)</u>	
	Type: quiz game	Last checked: 13/10/2022

Brief description of the resource.	This online quiz has been created for secondary school pupils to help them understand the basics about the EU, including law, institutions, functioning and history. The quiz has four sections with 13 or 12 questions in each. Users have two attempts to answer each question. A correct answer on the first try scores two points, and on second go, one point.
2. Additional Information	
Possible links to learning activities. Relevance with specific topics of the curriculum. Suggested use of the resource in classroom.	This quiz has been designed to give young people a quick and useful introduction to the European Union. It can be used as a stand-alone activity or by teachers, alongside the publication 'EU&ME.

What is the European Union?

The founding countries decided to share control of their coal and steel industries so that they could not secretly arm themselves against each other. After this, they set about expanding cooperation to other economic sectors.

QUESTION 2/13

What was the organisation they created in 1957 called?

- The European Economic Community.
- The European Coal and Steel Community.
- The European Economic and Social Committee.

Library Item 8 – Europe in a Nutshell

1. Overview	
Title and Link.	Europe in a Nutshell
Type of resource (e.g., multimedia, text, application, digital repository, etc.) Date of last check. Brief description of the resource.	Link: LET'S EXPLORE EUROPE (unc.edu)
	Type: Lesson Plan	Last checked: 13/10/2022
	The lesson plan gives a broad picture of Europe, combining geographical, historical, and political perspectives. Each section is presented on one page. You can print the entire document or individual pages and use them as hand-outs for your pupils, or adapt the content of the Word document to specific teaching needs.
2. Additional Information	

| Possible links to learning activities.

Relevance with specific topics of the curriculum.

Suggested use of the resource in classroom. | The tool deepens the following curricular themes:
Geography: defining Europe's borders; distinguishing between Europe and the European Union; number of continents in the world.
History: putting historical events into a broader context; understanding how history affects the present; learning lessons from history.
Social studies: placing countries in their European context; democracy and communism; war and peace; preparing to play an active role as citizens.
Modern foreign languages: Reading, writing, speaking and listening skills.
It also contains examples of activities that can be organized in classrooms for young people aged 9-15yo. |
|---|---|

History (pp. 2 and 3)

- Discuss: How did European countries interact with each other in the past? (Through trade, treaties, and political cooperation, but also through wars and conflicts)

- Discuss: How did European countries inspire each other throughout history? (e.g. in the areas of science, inventions, the arts, religion, philosophy)

- The Second World War, discuss: How did your great-grandparents live during WWII. Do you think that after the war they were able to make friends with people they had been at war with?

Social studies (pp. 3 to 5)

- Discuss: What does it mean for your pupils to be European or to live in Europe?

- Discuss: Why was the EU created? Why did so many countries want to join the EU?

- 'What the EU does today' (p. 4): Why did EU countries decide to deal with these issues at European level? Would you decide otherwise in certain fields?

Library Item 9 – Civic education package

1. Overview	
Title and Link.

Type of resource (e.g., multimedia, text, application, digital repository, etc.)

Date of last check.

Brief description of the resource. | **Civic education package** |
| | https://learning-corner.learning.europa.eu/learning-materials/civic-education-package_en |
| | Type: Presentation slides; Teaching kit; Website · Last checked:14.10.2022 |
| | The civic education package help teachers and other education professionals to explain the added value of working together and the benefits of European integration.
There are five ready-to-use teaching lessons, demonstrating how the individual countries work together in the Council of the EU and the European Council |
| 4. Additional Information | |
| Possible links to learning activities.

Relevance with specific topics of the curriculum.

Suggested use of the resource in classroom. | All lessons contain teaching methods, manuals with a step-by-step guide on how to use them, links to all materials, as well as games, videos and lots of fun.
The lessons about EU countries, laws , institutions, can be download from the following links and print them where necessary:
- Lesson for theoretical learners in secondary education
- Lesson for practical learners in secondary education |

Available in all EU languages

Library Item 10 – Europe@school – Actice lessons about the European Union

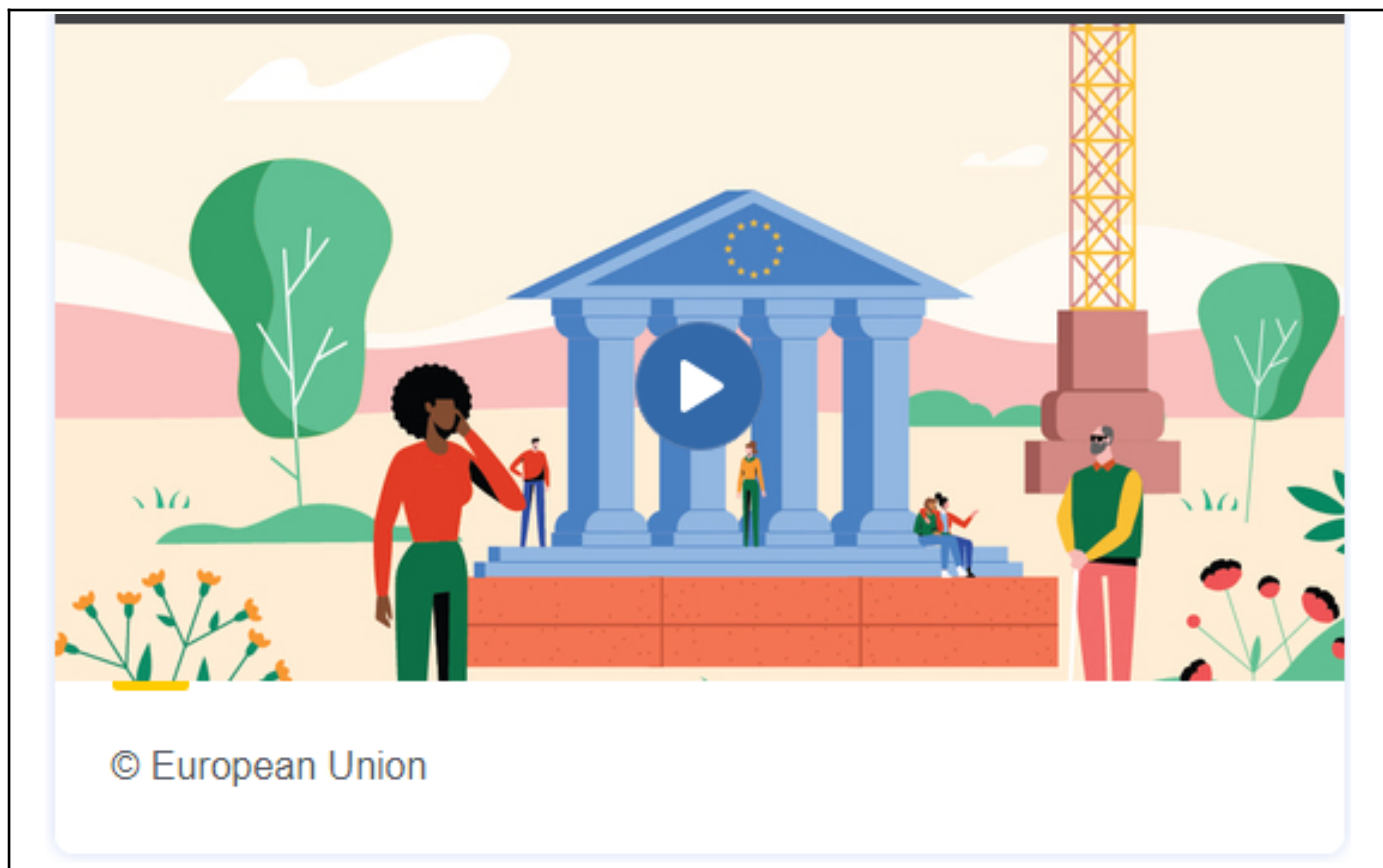| 1. Overview	
Title and Link. Type of resource (e.g., multimedia, text, application, digital repository, etc.) Date of last check. Brief description of the resource.	**Europe@school - Active lessons about the European Union**
	https://youth.europarl.europa.eu/en/educators/learning-resources.htm
	interactive tools	Last checked:14.10.2022
	The European Parliament offers different resources to help teachers bring Europe closer to students in an interactive way. Teachers will find here thematic modules, pedagogical toolkits and audiovisual materials to discuss relevant European topics, to generate debate and work in a playful way. The material follows a 'learning by playing' methodology, with quizzes, role-play games, videos and interactive exercises. It is the ideal tool for students from secondary and vocational schools.	
1. Additional Information	
Possible links to learning activities. Relevance with specific topics of the curriculum. Suggested use of the resource in classroom.	The tool aids learning about the EU, its Member States, its history, its values and its impact on our daily lives. It also includes a module on media literacy and disinformation. The educational tool contains seven independent modules, which can be used separately, and a teachers' manual, helping to implement interactive activities in the classroom.

Library Item 11 – Match the landmarks!

1. Overview	
Title and Link. Type of resource (e.g., multimedia, text, application, digital repository, etc.) Date of last check. Brief description of the resource.	**Match the landmarks!**
	https://learning-corner.learning.europa.eu/learning-materials/match-landmarks_en
	interactive game	Last checked:14.10.2022
	Dedicated to pupils between 9 and 12 years old, this game aims to familiarize children with the European cultural area. The journey among the most emblematic buildings and symbols of EU countries opens the doors to the curiosity about European culture and social life. Pupils clicking on the European flags can see famous landmarks pop up……each one appears twice! They are challenged to find the pairs. The game can be played on a big screen (tablet or computer)	
1. Additional Information	
Possible links to learning activities. Relevance with specific topics of the curriculum. Suggested use of the resource in classroom.	As a preliminary activity, the similar interactive game: Match the flags History, geography, culture, life and social behavior are to be discovered while playing.

Library Item 12 – What are EU values?

1. Overview	
Title and Link.

Type of resource (e.g., multimedia, text, application, digital repository, etc.)

Date of last check.

Brief description of the resource. | **What are EU values?** |
	https://learning-corner.learning.europa.eu/learning-materials/what-are-eu-values_en
	online video	Last checked: 14.10.2022
	Suitable for students aged 12 to 15 and over, this video is an attractive way to learn about the values and principles on which this common space of life for all Europeans is based.
1. Additional Information	
Possible links to learning activities.

Relevance with specific topics of the curriculum.

Suggested use of the resource in classroom. | The EU values are set out in
  • the EU Treaties
  • the Charter of fundamental Rights of the European Union

Human rights, About the EU

It is a starting point for class activities about these shared values, to ensure strong beliefs and attitudes about inclusion, tolerance, justice and solidarity by debates, role plays, quizzes. |

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Library Item 13 – Fighting climate change together

1. Overview	
Title and Link. Type of resource (e.g., multimedia, text, application, digital repository, etc.) Date of last check. Brief description of the resource.	**Fighting climate change together**
	https://learning-corner.learning.europa.eu/learning-materials/fighting-climate-change-together_en
	online video Last checked: 14.10.2022
	In these 30-45 seconds interviews, 17 young students between 11 and 16 years old, give their views on climate change and tell about the actions they do in their daily lives to combat it.

1. Additional Information	
Possible links to learning activities. Relevance with specific topics of the curriculum. Suggested use of the resource in classroom.	EUClimateAction YouTube Playlist; Fighting climate change together EU environment, climate and energy The students can present their actions for the protection of a healthy environment. Concrete actions can be initiated "extra muros", during voluntary activities with the involvement of local community, authorities and press.

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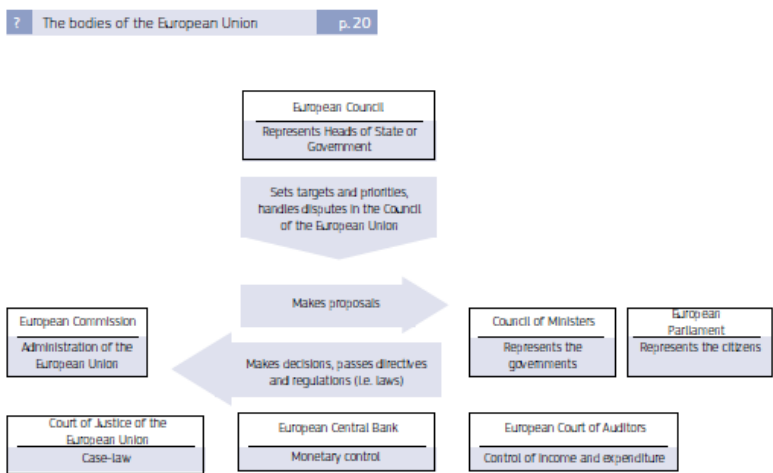
Library Item 14 – EU History Timeline

1. Overview	
Title and Link. Type of resource (e.g., multimedia, text, application, digital repository, etc.) Date of last check. Brief description of the resource.	EU History Timeline
	Link: https://european-union.europa.eu/principles-countries-history/history-eu_en
	Type: webpage — Last checked: 11/10/2022
	A static webpage with a timeline representing the decades of history of the European Union. Each timeline part has a reference with more information about EU important historical facts of that specific decade.
2. Additional Information	
Possible links to learning activities. Relevance with specific topics of the curriculum. Suggested use of the resource in classroom.	The teacher can engage students in team or individual activities, asking them to interact with the EU timeline and answer a set of critical questions relating to each history. The content of this resource relates to the curriculum of specific countries that revolves around modern EU history facts. It is an official EU webpage.

Library Item 15 – The European Union – Summary on a Map

1. Overview	
Title and Link. Type of resource (e.g., multimedia, text, application, digital repository, etc.) Date of last check.	The European Union - Summary on a Map
	Link: https://www.youtube.com/watch?v=4VCYHTGjr-U
	Type: online video — Last checked: 11/10/2022

Brief description of the resource.	A YouTube video, presenting the story of the EU, going as back as the recovery of the European countries from WWII and the initial collaboration between countries for the production of coal and steel and up to the Brexit, the discussion about expansion of the EU, etc.
2. Additional Information	
Possible links to learning activities. Relevance with specific topics of the curriculum. Suggested use of the resource in classroom.	This resource may be given to students to introduce them to the history of the EU in combination with its geographical aspect as all historical events are portrayed having in focus the map of the European continent. The resource maybe utilized either in the classroom or as part of after school learning activities and can also be integrated as part of one (e.g., a teacher assigns students to watch the video at home and the next day, hands out a printed sheet of a map with no country names, and asks students to work in teams and point out as many EU countries as they can by naming them on the map).

Library Item 16 – Europe: Teacher's Guide

1. Overview	
Title and Link. Type of resource (e.g., multimedia, text, application, digital repository, etc.) Date of last check. Brief description of the resource.	Europe: Teacher's Guide
	Link: https://europe.unc.edu/files/2016/11/Europe-Teachers-Guide.pdf
	Type: PDF Last checked: 10/10/2022
	A PDF developed by the European Union to help teachers present materials about the EU to their pupils. It contains information about what is the EU, who are the Member States, fun facts, quizzes and basic information about some of their policies.
2. Additional Information	
Possible links to learning activities. Relevance with specific topics of the curriculum. Suggested use of the resource in classroom.	This resource can be used as a guideline for building a foundation for the other modules as it is developed by the EU itself and has all the important information that needs to be covered. It also has fun activity ideas and quizzes which can be used as an engaging means to test the pupils on what they've learned.

Library Item 17 – Europe. Better Together!

1. Overview

Title and Link.	Europe. Better Together!
Type of resource (e.g., multimedia, text, application, digital repository, etc.)	Link: https://op.europa.eu/o/opportal-service/download-handler?identifier=e5b1bc09-3364-11ed-975d-01aa75ed71a1&format=pdf&language=en&productionSystem=cellar
Date of last check.	Type: PDF	Last checked: 10/10/2022
Brief description of the resource.	A PDF Teaching kit developed by the EU which can be used as a tool to raise awareness about Europe for pupils over the age of 10. It contains three different brochures focusing on different areas of Europe: geography, current affairs, EU citizenship, daily lives, quality of products etc.

2. Additional Information	
Possible links to learning activities. Relevance with specific topics of the curriculum. Suggested use of the resource in classroom.	The brochures can be used in any order, they are developed to complement each other but can also be used as a stand-alone teaching material. This teaching kit will help make children aware they are part of the EU and they can shape the future of Europe. It includes vocabulary, games and hints which encourage the children to actively participate.

Library Item 18 – United in Diversity

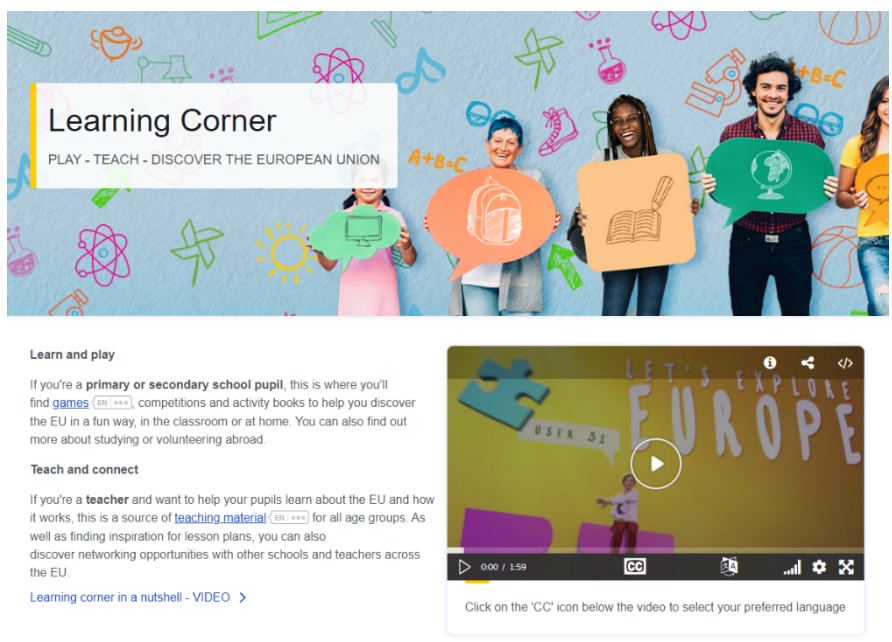| 1. Overview	
Title and Link.	United in Diversity
Type of resource (e.g., multimedia, text, application, digital repository, etc.)	Link: https://op.europa.eu/o/opportal-service/download-handler?identifier=799180ad-40e1-11eb-b27b-01aa75ed71a1&format=pdf&language=en&productionSystem=cellar
Date of last check.	Type: Map	Last checked: 10/10/2022
Brief description of the resource.	Poster for children showing a map of Europe with little pictures that illustrate some of the national characteristics and traditions of each country. The euro coin next to the country names will help you identify those using the euro.
2. Additional Information	

Possible links to learning activities.	
Relevance with specific topics of the curriculum.	
Suggested use of the resource in classroom.	

Library Item 19 – Climate Action Board Game

1. Overview	

Title and Link.	Climate Action Board Game	
Type of resource (e.g., multimedia, text, application, digital repository, etc.)	Link: https://learning-corner.learning.europa.eu/learning-materials/climate-action-board-game_en	
	Type: Game	Last checked: 10/10/2022
Date of last check. Brief description of the resource.	A fun and interactive board game designed to help young children understand climate change better and learn what steps they can take to help combat it.	

2. Additional Information	

Possible links to learning activities. Relevance with specific topics of the curriculum. Suggested use of the resource in classroom.	

Library Item 20 – Learning Corner

1. Overview	

Title and Link.	Learning Corner	
Type of resource (e.g., multimedia, text, application, digital repository, etc.)	Link: https://learning-corner.learning.europa.eu/index_en	
	Type: Website	Last checked: 10/10/2022

Date of last check. Brief description of the resource.	An EU website aimed at both teachers and pupils to find learning materials about the EU and the main topics such as food, farming, environment, culture, history and more. All the materials have been developed by the EU and are categorised based on the age group of the intended target audience so it is easier for teachers to find materials.
2. Additional Information	
Possible links to learning activities. Relevance with specific topics of the curriculum. Suggested use of the resource in classroom.	

Annexes

ANNEX I Lesson Plan Template

LESSON PLAN TEMPLATE

1. OVERVIEW	
Lesson Topic	
Content Areas	
Duration of Lesson	
Target grades/ Age	specify the age of the students and grade
Brief description of the lesson	a brief description of the content of the lesson

2. LEARNING OBJECTIVES
Provide a set of general objectives that can be supported by the learning process and a set of particular objectives that are the body of the topic under consideration.

General objectives	
Particular objectives	

3. METHODOLOGY

Teaching methods	demonstration, cooperative learning, peer teaching, etc.
Teaching techniques	describe briefly the approaches to be used (e.g. problem solving, flipped classroom, etc)
Prerequisites	Prior knowledge required, relation to background experiences
Materials	ppt, videos, notes, pens, paper, monitor/TV, whiteboard/Flipchart, computers, internet, sticks, led, sensors, electronics, Any object (cup, glass, table...), …
Resources used by the teacher	
Resources for the students	

4. IMPLEMENTATION (organization of the lesson)

Introduction/ Motivation (time)

Activities of the teacher(s) and students
(Creation of interest, reference to real value issues, relation to background experiences etc.)
-
-
-

Main Activity (time)

Activities of the teacher(s) and students

  Development activities (preparation for practice)
-
-
-

  Practicing activities (guided practice ->free practice)
-
-
-

Reflection/Closing Activity (time)

Activities of the teacher(s) and students

  -
  -

5. EVALUATION / ASSESSMENT

Assessment Type:	ex: skills (problem solving skills, teamwork skills, self-confidence, critical thinking); learning objectives; formative

(what is measuring, assessing)	assessment(understanding of contents); Applied Learning; values; innovation stance,… *Pre-Activity, Activity-Embedded, Post-Activity Assessment
Evaluation tools (instruments)	survey, quiz, individual questions, test, interview, worksheet, …

6. Assignment

Author(s): _____

Resources

Branch, R. M. (2009). Instructional Design: The ADDIE Approach. Germany: Springer.

Klein, J. D., Richey, R. C., Tracey, M. W. (2010). The Instructional Design Knowledge Base: Theory, Research, and Practice. Ukraine: Taylor & Francis.

Carr-Chellman, A. A. (2015). Instructional Design for Teachers: Improving Classroom Practice. (n.p.): Taylor & Francis.

Instructional Design: Theory, research, and models. (1997). United Kingdom: L. Erlbaum Associates.

The Instructional Design Trainer's Guide: Authentic Practices and Considerations for Mentoring ID and Ed Tech Professionals. (2022). United States: Taylor & Francis Group.

Morrison, G. R. (2010). Designing Effective Instruction. United Kingdom: Wiley.