



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824466. This document reflects the views of the author and the European Union is not responsible for any use that may be made of the information it contains.



PULCHRA

Participatory Urban Learning Community Hubs through
Research and Activation

EC Grant Agreement	No.824466
Project Acronym	PULCHRA
Project Title	Science in the City: Building Participatory Urban Learning Community Hubs through Research and Activation
Instrument	HORIZON 2020
Programme	Open schooling and collaboration on science education
Start Date of Project	01/09/2019
Duration	36 months

D9.1. Activities in support of the City Science Reporters

WP9	Organize and run the City Science Reporters
Due Date	30/11/2020
Submission Date	03/12/2020
Responsible Partner	TEREZA
Version	1.0
Status	Final
Delivery Type	Report
Dissemination Level	Public



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Executive summary

This document is the deliverable D9.1 of the PULCHRA project, which addresses the operation of the City Science Reporters teams. It describes requirements to be met by City Science Reporters Teams as well as by the national partners of the project and other stakeholders and their activities in order to promote the project activities and support the concept of open learning. The operational patterns of the City Science Reporters Teams are outlined and the educational material and activities in support of the City Science Reporters activities are included.



The deliverable D9.1. is the result of tasks 9.1 Define the structure of rules of operation of the Science Reporters Teams and 9.2. Develop activities for the PULCHRA Science reporters.

Version History

Version	Date
0.1 First draft	16/11/2020
1.0 Final	03/12/2020



Part A: Requirements and the operational rules of the City Science Reporters

Description of the City Science Reporters Teams

The City Science Reporters are mixed teams of students and teachers who are responsible for communication and dissemination of the project results. They upload content on the City Challenges platform, get in touch with local and national media and promote PULCHRA activities in social media.

From the beginning of each City Challenge to its completion, the City Science Reporters will inform the school community, the citizens, the stakeholders and public about the progress of the City Science Teams work and the results obtained from the research activities. The City Science Reporters shall communicate with community and stakeholders through the journalist outcomes and at the Open school event. Their results will be also uploaded on the City Challenges platform and presented at an open event called “City Challenges Workshop”.

The implementation of the City Challenges is structured in four phases which are described in detail in the D.10.1. Guidelines for City Challenges Run. City Science Reporters activities will take place mainly within:

Exploration phase (mid-October - end of December 2020, respectively 2021) with aim to actively engage schools and stakeholders to the project and initiate the City Challenges implementation. In this phase, City Science Reporters teams will be organised and activated. The teams will contribute to organisation of the first PULCHRA School Open event and start communicating the work done by the City Science teams.

Deployment and Exploitation phase (beginning of January to end of May 2021, respectively 2022) with aim to lead to the successful completion of the City Science team activities, to actively engage the Science reporters and conclude with the 2nd City Challenge event and the overall exploitation of the project’s results.

In this phase, the majority of City Science Reporters activities will take place. The activities will be deployed and will contribute to expanding the network of external collaborators and stakeholders and to communicating the City Challenges project to the local authorities and community. City Science Reporters teams will also be active in organising the second PULCHRA School Open event.



The City Science Reporters' activities will be held within the six themes of the City Challenges (specified in D5.1 Requirements and operational patterns for City Science Teams).

With emphasis on the Themes activated for the specific school year, City Science Reporters teams will contribute to defining the theme of interest and the specific challenge/problem as the core of their own project. The City Science Reporters will assure that material usable for the communication phase of the project is created (City Challenges platform update, social media, newsletters).

The activities of City Science Reporters, in particular meetings of the Team and meetings and communication with the local community, experts and other stakeholders, should be organized with respect to the COVID-19 pandemic situation and related precautionary measures. The COVID-19 pandemic can have an impact on the organization and timing of Reporters' activities, as well as on the number of outputs created.

In exceptional cases related to COVID-19 pandemic and its impact on the partner countries' school system, adjustments to the expected outputs and their timing may be applied. In such cases the provisions of the Consortium agreement as far as decision making will apply. Each partner is responsible for timely communication of special needs/adjustments.

Operational patterns of the City Science Reporters

Each school, participating in PULCHRA, creates its own City Science Reporters Team. Members (teachers, students, supporting members) who joined the Team will work together for one or both years of the PULCHRA Project. The City Science Reporters have two essential roles – to document the project progress and outcomes for the other participants and communicate with the broader audience. Each member of the City Science Reporters Teams should undertake a specific role, adequately described as far as the work to be done (D5.1 Requirements and operational patterns for City Science Teams). The specific roles of City Science Reporters and their operational patterns are described in the following chapter.

City Science Reporters interconnection and interaction with City Science Team

- The City Science Teams and City Science Reporters overlap and are interconnected. With the respect to their capacities and number of tasks,



members can take the role of Scientists or Reporters or can be responsible for more agendas at the same time.

- The Scientists and the Reporters are expected to work in cooperation and interconnection - Scientists mainly research, gather and analyze data, Reporters interpret, visualize and promote results.
- Reporters can be involved and participate also in Scientists activities and meetings. It is recommended and considered as beneficial to interlace the activities.
- Simultaneously, the Reporters Teams meetings are open for Scientists. It is recommended that Scientists and Reporters organize common regular meetings.
- It is recommended that the City Science Reporters meet at least every 2 weeks or as often as needed in person or online.

Forming of a City Science Reporters team

- It is recommended that the City Science Reporters team consists of approximately 5 students.
- There are several roles City Science Reporters can take, within the team. Each student can take more roles, if needed.
 - Reviewer - responsible for searching and reviewing the information (works preferably with primary source of information via internet, literature, etc.).
 - Communicator - responsible for interviews, sharing within and outside the City Science Team, spokesperson, media contact.
 - Technician - responsible for the technical equipment (takes pictures, records videos, graphic editing).
 - Editor / Translator - responsible for the correct outputs, translates from and to English, grammar checking before media release.
 - Creative - visual touch, article writing, social media post writing, etc.
- For the operation of the City Science Reporters teams, a role of City Science Reporters Mentor is crucial. The **City Science Reporters Mentor** is a teacher supporting work of the Reporters and their collaboration with a team of scientists. This teacher may not have a specific scientific background. It is highly recommended to assign this role to a language teacher, IT teacher, etc., in order to support Reporters activities as well as cooperation within the school. City Science Reporters Mentor coordinates the activities with other involved teachers such as Science Team Supervisor and Science Team Mentor



(these roles are specified in D5.1 Requirements and operational patterns for Science Teams).

- If there is more than one City Science Team operating in the same city at the same time, it is recommended to link the efforts of the City Science Reporters Teams in order to enhance the communication with the local community. Schools will be advised by the national project coordinator on how to foster their communication and collaboration.

The role of national project coordinators and supporting team members

- Each City Science Reporters Team will have its own Advisor designated by the national project coordinator, who will support the City Science Reporters on the organizational issues and will take care of establishing links with professional journalists and experts in a chosen research topic.
- The Advisor can work with more than one Team at the same time and can also support the whole City Science Team.
- It is important for the City Science Reporters to have virtual or face to face meetings with journalists. National partners together with Advisors will help to create such advisory meetings by contacting professional journalists and inviting them for registration to the City Challenges Platform and cooperation with the City Science Reporters Teams.
- To contact professional journalists and support their cooperation with schools, partners and school Advisors can turn to journalistic organizations such as [Young Reporters for the Environment](#) or [Solution Journalism Network](#).
- Professionals and experts can join and contribute as supporting members of the City Science Team. These supporting members of the City Science Reporters Teams will be involved when it is needed, mainly during the Exploration, Deployment and Exploitation phase of the project.
- The Advisors will monitor the science reporters' communications and send on any that would be of interest to the wider PULCHRA audience to An Taisce (PULCHRAIreland@eeu.antaisce.org) translated into English (if suitable) to decide on whether it would be good to share it on the PULCHRA blog or social media. These could be blog posts, videos, photos, reports, media coverage etc.

TEREZA will support the cooperation of the City Science Reporters with professional journalists and media experts and if requested provides guidance to the schools and support in organization of additional activities, such as workshops and webinars. TEREZA also provides educational materials and monitors progress of the Science Reporters activities and outputs in order to reach defined project goals. TEREZA is in contact with national partners and in cooperation with An Taisce can assist in



communication of the City Science Reporters within the international community of all the schools.

Outputs of the City Science Reporters Activities

The City Science Reporters will be an important asset for disseminating and communicating the project results. They will be active in contributing to the goals of all the dissemination and communication tools and channels.

The City Science Reporters have two essential roles: a) documentation of the project progress and outcomes for the participants and b) communication with the broader audience.

To fulfill these roles, the City Science Reporters will collect information in support of their project and to disseminate lessons learned during the City Challenges. They will actively communicate and contribute to the press and science media through press releases and social media posts. The City Science Reporters will also be active in writing outcomes that could inform future journal publications.

Schools should invite the local community to personal or online information events where the City Science Reporters inform about the City Science Team activities and results. City Science Reporters may also promote surveys and questionnaires in their local environment so as to collect the views of the people living in their area as far as urban issues, on their overall environmental perspectives etc.

It is not necessary for every City Science Team to create all the outputs listed in the chapter Outputs of the City Science Reporters Activities. The school advisor, in cooperation with the national coordinator, will ensure that each City Science Reporters Team sufficiently informs about the school activities through the listed outputs.

The content created by the City Science Reporters, that is suitable for the wider PULCHRA audience, will be sent by the national project coordinators to An Taisce for sharing on the PULCHRA website and social media. The content should be sent to An Taisce in English or with appropriate English explanation and with a suggestion on how it might be communicated.

School events

There will be 2 open events per 1 year organized in the school, other places decided by the City Science Team or online with the aim to describe and discuss the topic, the



possible project aims and the steps and methodology for accomplishing the aims. The school community, stakeholders and any other interested persons will be invited to participate in the event and get engaged with the challenge and the school project. Participation in the open event will help stakeholders to understand the science and technology linked to the school project, barriers to implementation, and what needs to be done in order for successful solutions to be designed.

The City Science Reporters will:

- help defining and contacting the potential audience directly, or through the local media or on-line through social media, e-mail communication etc., for the involvement in the event.
- be active in organizing these school events.
- create the informative materials about the event - social media posts, flyers, etc.

- observe, gather information, record during the Open events.
- get involved in communicating the school project to the audience during the event.
- create outputs after the event in order to disseminate and communicate the City Science Teams actions on the project.
- under the guidance of teacher upload materials from the Open events (report, news, images, etc.) along with material linked to the implementation of the project (e.g. visit of the City Science Team to a stakeholder, invited lecture in the school, intermediary results, etc.) to the City Challenges platform.

Social Media

Social media will be one of the main tools for increasing visibility and promoting the PULCHRA project and its results to the target audiences. In term of creating the content for the social media, the City Science Reporters will:

- create content and be active on their own school social media accounts.
- regularly share and interpret information about project progress, findings, cooperation with stakeholders, school events etc.
- create content that will be engaging, varied, accurate, relevant, worthwhile and visual to help build our audience and to create credibility.
- use the PULCHRA hashtags while publishing their posts - **#PULCHRA, #ScienceInTheCity, #UrbanEcosystems**.
- Social media platforms to which City Science Reporters will contribute are: Facebook, Twitter, Instagram, LinkedIn, YouTube



- the outcomes should be sent to An Taisce directly or through the project coordinators in order to be put out on the PULCHRA social media. In case on non-English posts, an explanation in English should be added.

Media releases and publications

The City Science Reporters will actively communicate and contribute to the local or national press and journals. They will be encouraged to be active in creating press releases, photo-calls, media alerts and invites to local events. They may also be involved in media-monitoring. The key media engagement periods of City Science Reporters teams will be focused around events and the publication of resources, methodologies, actions and results. The goal of these activities is to create increasing awareness in the media of the project and its results and to gain extensive positive exposure.

To reach these goals, the City Science Reporters should:

- be guided by the D9.1. Handbook of a Young Reporter and D9.1.C_Activities for Training and Deepening Reporting Skills provided by the national coordinator and the school advisor.
- create or contribute to a content relevant for the general media audience that will be addressed and dependent on the nature and scale of the media e.g. local or national etc.
- create a storyline from each City Challenge project (reportage/article/photo report/video).

Optional activities for the City Science Reporters:

- create content for Young Reporters for the Environment platform.
- be active in writing outcomes that could inform future journal publications created by collaborating scientists and experts.
- support the City Science Team in creating a presentation for the GLOBE International Virtual Science Symposium.

Blog pieces

- The City Science Reporters will be active in creating engaging blog pieces in English for the PULCHRA website with the aim to inform target audiences on the project and promote the project to these audiences.
- It is recommended that each school contributes at least one blog piece per year in order to keep the target audience informed and reach the project aim to have 1 post published bi-weekly.



- City Science Reporters will be asked to send any blog posts they wrote to the school advisor or the country coordinator. Blog posts will be sent to An Taisce, who will choose blogs for publishing on the PULCHRA website.

E-newspaper articles

The E-newspaper will be released 2 times per year through the City Challenges Platform and will contain information about the activities of the City Science Team intended mainly to the involved schools. City Science Reporters will be active in creating the content that:

- will reflect on PULCHRA project, teamwork, school projects, feeling of achievement, communication with professionals and local community.
- will inspire others among all the participating City Science Teams.
- will include information about project topics, inquiry-based learning, interviews with members of the team, stakeholders or community members, reports from school events etc.

Contributions to the e-newsletter

The newsletter will be published 2 times per year (every 6 months) by An Taisce and will contain contributions from students, the participants, affiliated entities, open source material, etc.

The City Science Reporters will be active in creating content for the e-newsletter.

Storyline

The Storyline will be the main output informing about the results of the City Science Team's research, with the potential to reach publication in the media.

The City Science Reporters will cooperate with the City Science Team and continuously collect information about the research, statements of key people, and when having enough materials, they will start creating the storyline in the form of reportage, article, photo report or video. Everything the City Science Team and the City Science Reporters have learned will be included in the Storyline.



Project brochures

It is recommended that the City Science Reporters contribute to the content of the communication materials, such as project brochures that will present project results.

The main outcome of the City Science Reporters activities used for the project brochures will be the written Storyline summarizing the results of the City Science Team's research.

Materials to support the activities of the City Science Reporters Teams

In order to provide guidance and support the process of the creation of the City Science Reporters outputs two materials have been created:

- **D9.1. Part B: Educational material: Handbook of a Young Reporter**
- **D9.1. Part C: Activities for training and deepening reporting skills**

These materials will be available at the PULCHRA City Challenges Platform. Partners will help with translations and with training and supporting the City Science Reporters' teams at national level.



Part B: Educational material: Handbook of a Young Reporter



PULCHRA

Participatory Urban Learning Community Hubs through
Research and Activation

Handbook of a young reporter

How to let the world know about your research



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824466.

Dear reporter,

If you want to help nature, you can't do without people. It's necessary to inform them and ideally to cooperate with them. A reporter's activity can contribute to this. Thanks to you, the whole community will learn what you are dealing with at school. The goal of the two-year PULCHRA Project will be to get to the bottom of a problem that troubles you, your classmates, parents, or teachers. It can be a problem that bothers also other residents of your community. You and your team will search for examples of good practice in other schools, where you can get inspired by how they solved a similar problem. One of the tasks will also be to inform your community inside and outside the school that you intend to deal with the problem. Inform the people so that they not only understand your intention but also want to help you. Try to get them involved in the project either by a call to cooperation or by competition. If they agree, don't forget to appreciate them and thank them for their help.

This handbook will help you with how to do it.

This guide should make your journey to knowledge as easy as possible. You will find here four rules of high-quality Solution Journalism. If you follow them, it is very likely that the readers of your articles won't remain worried but will feel some hope that the problems you wrote about have their solutions. Then you'll find here ten tips on how to create a good report, you'll learn how to write posts on social networks, blogs, and what a press release should contain. Read carefully the ten rules for online safety as well. You'll spend time online while searching for information but also by writing articles, editing pictures, and videos. It is therefore good to know some rules to follow and where are the risks. Last but not least, you'll find some tips on how to spread your knowledge among friends, parents but also towards the general public. Sometimes it is better to address people through a short post on Facebook, for another situation it is more appropriate to write a longer article on a blog. If you are not sure what to choose, consult the appendix. Do you want to learn more? Have a look at the recommended resources that can broaden your horizons even more. Now it's up to you. Fingers crossed!

Marie Drahoňovská and the TEREZA Educational Centre team.

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Quality Solution Journalism

Mistrust of the media is growing in society. Negative news that look hopeless are rushing on a reader. Media do not offer us solutions, they often only point out problems and leave their solution on politicians, institutions, or active citizens. Don't be one of them. Help solve the problems.

Tell people the whole story, not just its fragments. Only through quality journalism, you can explain to people what the problem is and show them how to solve it at the same time. You are probably not the first one who is dealing with the problem. It's quite possible that the solution already exists. Try to find it, or find a problem with a similar solution and get inspired. It can help you with research and will be of interest to your readers as well. Describe to them the procedure selected by your predecessors in solving the problem. Was the problem solved? What was the lesson learned? And how will you and your team deal with it?

There is a relatively new school in journalism called Solution Journalism, which focuses on quality solution-oriented journalism. Read more about it on the Ashoka_Organization website, or directly on the official website www.solutionjournalism.org.

Quality Journalism Stands on Four Pillars

The four pillars of quality journalism can help you not only when writing a report but also when working on your common project.

A description of the problem in your community

Example: An illegal dump emerged next to your school. The land belongs to the municipality, it is located in a remote part of the city, people avoid it but this problem bothers you and you don't want to ignore it. You don't like the view of the garbage and you also think that the place could be used in a better way. Explain **HOW and WHY** the social or environmental problem you want to write about occurs.

What is already known about the problem?

The garbage dump was started by residents of a nearby housing estate who didn't want to transport tires and old furniture to a junkyard. Since it is a remote place, no one has been dealing with the problem and now the dump is so big that its removal would cost a lot of money that the municipality cannot invest. The dump pollutes groundwater and degrades the soil. However, you know that in CleanTown, due to the interest of local people, it was possible to remove the garbage dump and create a flowery meadow with an insect hotel. Present **RELIABLE DATA, FACTS, INFORMATION, AND EVIDENCE**, how the problem was solved in CleanTown. What is the impact of this activity? Offer authentic information and experience of the people who have solved the problem. Summarize the results of the research, describe the current activities related to protection, or, on the contrary, to deterioration of the situation in the place you want to write about.

Looking back and lesson learned

Take a close look at the way the people in CleanTown proceeded. How much did the garbage removal cost? How do you treat the soil before you plant flowers on it? What kinds of flowers are suitable for such a place? What else could be done on the spot to make people feel good there? Now you know how others have solved the problem and you can benefit from the **LESSON LEARNED**. Your goal is to present some directions, a model plan you can repeatedly implement, of how to proceed in a given situation. Show people how to use information gained from the research, how it can be useful elsewhere, and what needs to be done to solve the given problem. Show them a particular way, an example that worked well and that can be useful for others in a similar situation. It allows the reader to understand the principles behind the solution to the problem.

Limits

People in CleanTown managed to turn the garbage dump into a flowery meadow. They also placed benches and educational boards along the meadow. The place is now visited by many people for relaxation and learning about flowers and insects. However, has the municipality also solved the problem with waste disposal? People set up an illegal dump because it was too difficult to get their garbage to a designated place. Setting up a meadow on the spot is a solution to a problem but does not solve the cause... No solution is perfect, quality journalism also points out the weaknesses or **LIMITS** of the given solution. Naming the weaknesses will allow people, who will draw their inspiration in our work while solving their problem, to recognize them, not repeat them but learn from them.

Let Others Know About Your Project

Ten Steps for Writing a Report

The main output of informing about the results of your team's research will be a report that should finally reach publication in the media. Cooperate with your team and continuously collect information about the research, statements of key people, and when you feel it all fits together, start writing the report. In the report, you will apply everything you've learned.

The principles described in these ten steps are applicable not only when writing a report, but also when writing blog posts, press releases, or newsletter articles.

1. Choose a topic

The topic of the report can be the same as the topic of the whole project, or you can select only a part of it. It must be interesting for you, but at the same time consider whether the topic will be interesting for your readers as well. It should be contemporary, it can also be timeless, ideally something you want to know more about; the more you'll be interested in it, the better work you'll do. Don't forget this is teamwork. Is this a topic you have mostly agreed on?

2. Start with the search

You can get information from articles on the internet and in magazines, or directly from interviews.

Start with the information you find on the internet, or in traditional printed form (secondary sources): find more information in your local library and on the internet. Look through what has been written about the topic.

For example, explore the official websites of institutions/organizations that deal with your topic. Search for scientific articles about the topic as well (use search engines like Google Scholar, EBSCO, ENVIROnetBASE). You can also search in popular scientific articles and in various trusted magazines (for example, National Geographic writes about environmental topics...). A journalist comes to the field prepared and informed about what is already known about the topic. He/she doesn't ask "what" is happening in the place but looks for an answer to the question "why" and "how".

Continue by interviews with people who are important for your research (primary sources): these are the people who are related to your topic, most often experts, but they can also be police officers, politicians, business leaders, community activists, the Mayor, or the principal of your school. They are also people who are influenced by the given social problem. Imagine, for example, a project aimed at renovating a nearby park: it is good to ask its visitors what they feel is missing in the park, they may inspire you and bring you to some new ideas. Don't be afraid to ask your parents or grandma. They may know what the place looked like before, or who might know more about the park.

Your task is to find out who the main characters of your story are and address them with a request for an interview. It is good to talk to people right on the spot where the problem is. If you want to write a good report, you will need especially the views of the key actors, not just your own opinion of the problem and experience from the spot. It is the key actors your report stands on. Remember that nothing is black and white, give voice to all sides.

3. Prepare questions in advance

It is better to be prepared than to hope that questions and topics will just come to you during the conversation. Before you go to an interview prepare at least ten questions you want to ask the person. Highlight one or two of them that need to be answered at any rate; these questions will keep you in the conversation, they are your rescue pillars. Nonetheless, listen carefully and don't be afraid to give up the prepared questions in favor of a better topic. The two highlighted questions will always help you to get back to the topic and get answers to what you are interested in.

You can take a picture of the questions or save them on your phone so that you have them in hand all the time. You can get into a situation where you won't have a paper with prepared questions with you. In that case, don't be afraid to ask even without the prepared questions. You often get great material even from such conversations. Don't be afraid to address a stranger or write him/her an email. Say hello, be kind and explain that you would like to ask several questions concerning your topic if they would take a moment for you. Sign as a student of grade XY from your school. Sure, some people will reject you or won't reply, but don't be discouraged. Others, however, will be glad that you are interested in their opinion and you'll get their answers. If you don't try, you won't get anything.

4. Set out to the field

You can imagine the report as a documentary on paper. The reader must feel that he or she is in the described place with you. Show your reader a stocky bus driver with a stern look who just grumbles under his breath instead of a greeting, or a tall mayor with a long nose looking at you through glasses perched on the tip of his nose. You have to get up from your table and go straight to the spot to get the reader into the story. Observe people, their appearance, walking speed, gestures, notice the smell, noise, and silence. It is the details that make the reader experience the story of the report with you. Be authentic, describe your feelings and thoughts. Record the interviews and the entire visit on a dictaphone or a mobile phone, but never forget to take also written notes on the spot. These include your observations, thoughts, ideas, and interesting things that you won't hear from the recording.

Transcribe the entire recorded interviews. New topics will emerge with subsequent interviews and information and a passage that you originally didn't want to use may become important for your report. Save the recordings on your computer in case any of the respondents argue about what he/she told you.

5. Don't forget the graphics – photos, videos, charts, and infographics

Before you start taking pictures or filming, don't forget to make sure that people you want to portray in the media agree with it. Of course, this doesn't apply to random passers-by who “get involved” in the scene. However, if children (especially children under the age of fifteen) should be shown in the picture or video, make sure you have their parents' and school written consent.

Photo

A reportage picture is full of action, it depicts the story. A person should not be missing. It captures the topic. It is sharp and of good quality (more than 3 MB for printing, at least 2 MB for the web, for social networks 800x600px should be enough).

Video

Journalists often say that one picture is worth a thousand words and one video is worth a thousand pictures. However, the video must be of good quality for this to be true. Before you start filming, check:

- ✓ whether you are in a quiet and undisturbed place
- ✓ whether you are not shooting against the light
- ✓ whether the image is in focus
- ✓ record the sound separately on a mobile phone (second) or a dictaphone in case the sound from the video is of poor quality. If you do not have a microphone and the safety measures allow it, stand close to the person being filmed.
- ✓ If you can, use a tripod to prevent the image from shaking. New smartphones usually have a built-in stabilizer. Make sure it is turned on.
- ✓ Shoot the video on YouTube horizontally, but the video on Instagram and Facebook is better to shoot vertically. We usually hold the mobile phone upright in our hands and social networks such as Facebook and Instagram are mostly visited by people from mobile phones.
- ✓ Don't use the digital zoom, it reduces the quality. You better go closer to the scene.
- ✓ Remember that you have about three seconds to engage the viewer. If the beginning is boring, the viewer won't finish the video even if the rest of the video is interesting.
- ✓ Add subtitles to your video (many people cannot always turn on the sound while browsing on social networks). You can use, for example, Kapwing Application.

For editing your videos, you can use these programs for free: FilmoraGo, Magisto, Quik, or Cute CUT.

Making charts and infographics

You can use the free programs Canva or Piktochart. Through infographics, we can attract the reader's attention but also explain data that would be difficult to understand in the text.

When you create charts and infographics, don't forget the sufficient font size and sober coloring of the charts so that the colors do not overwhelm the information. If you need help, ask your computer science teacher, he or she will surely be happy to help you.

6. Trust... However, go on with your search after returning from the field

Interviews and field experience will bring you new knowledge, you may not understand everything or come across a topic you haven't heard about before. Therefore, return to your search on the internet, extend the knowledge from the field, ask your respondents about other people who, according to them, could have something to say on the topic. If you don't use them now, save them, they may be useful for your next article ;-).

7. Start writing

An article usually consists of three parts:

- **lead paragraph:** throw the reader into the story. Where are you standing? What's happening around you? The beginning of the report does not have to contain the most important information but it should draw the reader's attention; the reader should want to learn more about the topic. Use details, what you see, feel, and experience.
- **body:** this includes an explanation of the problem you want to write about and stories of the people affected by the topic. As an example, you can add stories from places where the problem has been solved – how did they do it and what specific problems they faced?
- **point:** at the end of each report there should be a point. What is the conclusion of the story you are telling?

8. Alternate information and narrative paragraphs

The testimonies of individual people will add credibility to your story and will make it more interesting. You can paraphrase the testimonies in your own words and use them as a source for the body of the article. Select such parts of the interview in which there are not only facts but also emotions in the quotations. If you described them in your own words, they would lose their magic. These are pungent comments, opinions of respondents, passages in which they describe joy, sadness, disappointment.

In the report, it is important not to forget the facts that will help the reader understand what you are writing about. These passages are, however, more difficult for the reader; he/she reads them slowly and needs to concentrate more. It is therefore good to alternate them with narrative passages, intersperse them with quotations that will enliven the text.

9. Create a catchy, striking, but true headline. Intersperse the text with subheads

Quite paradoxically, it is best to create the headline only after we have already written the entire text. It should capture the main message of the article. It must be striking, catchy, and should contain a verb. The headline should ideally not exceed the limit of 60 characters for short news; with articles such as reports, if necessary for the article, it can be extended to 120 characters. It is important that the headline is interesting but not lying. For better orientation in the text, it is also good to consider subheads, which divide the text into thematic subsections. Interesting headlines include short and concise snatches of the interview, few words uttered by the main characters of your story that draw

attention. On the contrary, it is good to avoid clichés (icing on the cake / who has not experienced, will not understand...)

10. Don't forget to re-read the text

Everybody makes mistakes. You'd better read the article twice, check grammar and if you are not sure, consult the manuals of the formal language. Don't be afraid to ask your teacher as well. He or she will definitely be happy to help you. You can discuss the report with classmates in small groups. Thus, you get valuable feedback, you'll see what they like and what still needs to be done. Somebody else can focus on proofreading and grammar editing. If you work together, you'll get the best version of the article.

The following resources for reports can make it easier for you to work on the article:

- Infographics <https://piktochart.com/>
- Google Tools for Journalists <https://newsinitiative.withgoogle.com/training/>
- Young Reporters for Environment tutorial on How to produce a good movie: https://www.youtube.com/watch?v=bTT_TZpeNCw&feature=emb_logo

How to work with social networks

If you learn to handle social networks, press releases, blogs, and newsletters, they will help you in promoting your team's activities. Although it may seem that the individual social platforms are similar, it is necessary to perceive their differences and use their unique features.

Before you start sharing information on different social networks, create an original story (for example in a word document) and adapt it to individual social media. Using the same content on all channels is a beginner's mistake ;-).

In today's world, the so-called hashtags (#) are part of social networks such as Instagram, Facebook, Twitter, and LinkedIn. This is a keyword that you can use to tag articles, documents, or their parts such as pictures and videos. Hashtags help to collect all information on a given topic and thus increase its visibility on social networks. For posts related to PULCHRA don't forget to use the hashtags:

#PULCHRA

#ScienceInTheCity

#UrbanEcosystems

Social media services require users to be at least 13 years of age to access and use their services. If you are younger than the age limit, ask your teacher to help you to upload the content to social media for you.

Facebook

You met with your research team in a meeting for the first time and you are planning what you will actually do next year. You are at the very beginning of your research journey but now is already the time to let others know! Facebook and Instagram are the right places to promote an event, share articles published in newspapers or on the web, and build a virtual community. Facebook allows you to keep track of what people are following you. You can then focus your posts on your target group.

Use Facebook if you want to let your followers know a specific result of your research or a piece of information that you want to further develop in your article. Your post should not be longer than five lines to attract attention. The shorter and more concise the post is, the more likely your fans will read it. Therefore, be brief and use keywords, you will write more in the article.

What belongs to a Facebook post

- **Text:** must catch attention, 5 lines max, information about research results/introduce your team! Share stories of the people involved.
- **Emoticons**
- **Links:** to articles and websites or other outputs of your research, but also people, organizations, and institutions concerned in your post.
- **Picture:** photos from the team meetings but also the research
- **Video:** shoot the video vertically, ideally add subtitles to the video. You can also use a Facebook function live broadcast.
- **Questions, challenges, competitions:** involve your followers in the research, show them that you are interested in their opinion.
- **Event invitations**

What should a Facebook post look like?

- **Inform:** emphasize interesting moments but don't reveal everything! Your goal is to attract readers to read your article or check your team's website
- **Tag:** classmates, friends, organizations, and institutions that you mention in the text. Just write their name and put @ in front of it.
- **Add a link:** refer your users to websites where they learn more information about your research. It is recommended to shorten the link. You can use free online shorteners such as bit.ly.
- **Add a picture or video:** ideal image size on Facebook: 800x600
- **Be mobile-friendly:** upload on Facebook only such pictures whose content will be visible even on a mobile phone. If you make a video on Facebook, shoot it vertically.
- **Involve your readers:** feel free to be the first to comment on the article. Add a question to make the readers answer. The discussion will attract more users.
- **Be accessible:** it is important to answer people's questions under your post no matter what they write. Be polite.
- **Stay positive:** users are then more likely to read the post.
- **Keep the periodicity:** you don't have to add new posts every day, one contribution a week is enough. It is important to keep regularity.

Instagram

Instagram is a social network suitable especially for sharing pictures and videos from our lives. It is ideal for gaining the attention of your peers, suitable for quick and up-to-date information about your research.

What to share?

- **Story:** pictures about everyday events with a caption. You don't have to worry about long captions on Instagram, just share a nice photo with one sentence.
- **Videos:** showing interesting facts from the research. One of the widely used features of Instagram is live broadcasting.
- **Pictures in the feed (on the bulletin board):** this includes photos capturing more important moments that will be of interest to your fans tomorrow or in a week. Through the feed, you represent your team. Take a nice picture from the first meeting, a picture of the place you want to improve (later you can share a picture before and after), take a picture of the whole team.

What should the post look like?

- **Edit:** Instagram users have a liking for really nice pictures. Don't be afraid to reach for the apps like Picasa, Camera+, or Snapseed to edit your photos. Don't overuse adjustments and filters though.
- **Rule of the third:** imagine that the picture is divided into thirds by horizontal and vertical lines. The photographed object should be on one of these lines, or preferably on their intersection.
- **Caption:** your text should draw attention; a question is ideal.
- **Tag:** friends, classmates, institutions that are in the picture or have something to do with it.
- **Don't forget the hashtags:** new fans will find you by the hashtags! Be generous with the hashtags but remember that they should match with the content of the post so that you don't create a misleading advertisement.
- **Periodicity:** contribute regularly, at least twice a week.
- **Shoot videos vertically:** Instagram is a network designed primarily for mobile phones, which we hold naturally in our hands in the vertical position.
-

YouTube

You have started the research with your team. Maybe you are doing field research, mapping the place you want to improve. Maybe you are just drawing what the place should look like at the end of the project, or you are doing interviews. Shoot it! YouTube is an ideal platform for sharing longer outputs of your research in the form of a video, which you can use in your article, or on Instagram and Facebook.

YouTube is the second most popular social network ever. YouTube users watch up to a billion hours of videos every day. It is a social network for all ages but for users under the age of 17 it is the number one network. It is on YouTube where you can aim both at your peers and the general public at the same time.

- Create a YouTube account together with your teachers or ask the teachers to create and manage an account for you
- Add a video, remember that you have about three seconds to engage the viewer
- You can use the video also on Facebook, Instagram, or later in the article

- Free editing programs for mobile phones: FilmoraGo, Magisto, Adobe Premiere Clip, Cute CUT...

Twitter

Twitter is ideal for written, concise, and clear information about current events. It is a network used mainly by the older generation between the ages of 18 and 49. The commonly used hashtag that sorts the content according to the topic (e.g. a major event, sport event, political case) comes from this network. People, who are interested in what you do, will find you thanks to hashtags. Twitter limits the length of the message, which makes it specific. The post cannot be longer than 280 characters. It may seem restrictive but the truth is that it is good to follow a similar rule also on other networks. Use questions and facts in Twitter posts. If you write a tweet in English and tag the general PULCHRA twitter account by including @pulchra_eu it alerts the person running the account and they might share that tweet on the account.

Blog post

Do you have the first research results? Write a short report about it. Summarize what you've come up with and what you've learned. Just a few paragraphs and several pictures. Even when writing on the blog, follow the ten steps for writing a report. Blog posts are usually more relaxed though. You can bring more of your feelings, thoughts, and ideas to them. Moreover, nobody here expects you to be 100 % objective. The blog serves to promote your activity, your joint classroom project. Don't be afraid to show off in the post or to thank people who helped you with the project. Unlike in normal messages, you can address the readers on your blog. Invite people to get involved in your project, make up a competition for them, ask them for help, or refer them to important documents you discovered during your work on the project.

Send any blog posts you write to the PULCHRA project co-ordinators in your country (you can write them even if you don't have a blog on your school website). Some of the best blogs will go out on the overall PULCHRA website for all the countries to see.

Press release

Do you and your team organize an event where you are going to present your results to others? Or did you come up with something crucial? Have you finally received an answer to your questions from the mayor or the owner of the land you want to improve? Then it's time for a press release! You can use a press release to let the media know that an interesting event is coming up, or that you've come up with something that should interest them. Don't be afraid to write a press release and send it to local media! If you catch their attention, they may write about your event. An article in your school newspaper will also be great!

What should a press release look like?

When writing a press release, it is always good to think about who you are writing for. Do you write a press release for parents, teachers, or the general public? Who could be interested in the report? Choose your writing style accordingly.

Title: must be catchy and attract attention.

Domicile: at the beginning of the message write the place where it comes from and the date of release

The first sentence: it often decides whether journalists will read the report at all. The most important things should be already incorporated in the first sentence. Answer the questions: What? Who? When? Where? How? Why? Ideally in this order.

Description – provide your reader with a context. What kind of event was it? What kind of research is this?

Quotation – start with quotes from ordinary people – how does the problem affect them? Then add a quote from an organization/institution/person in charge, or someone from the research team.

Invite: invite readers/journalists to look at your website for more information – provide a link to the text.

Additional info: don't forget to provide information about your organization/school (when it was started, how it got to the project, where it is located...) as well as information about the partner institution, or information about the PULCHRA Project in general.

Contact: each press release includes at the end a contact person for the journalists to ask questions. It should be someone who always answers the phone and who has a good knowledge of the research outcomes and the activities of other team members.

What to do with a press release?

Send the press release to the local media that focus on topics such as education or environmental protection (it can be for example local newspapers or journals). The best way is to contact a particular journalist who deals with your topic – whether it is education, sustainable city planning, or the environment. Make contacts among journalists.

In addition to the press release itself, it is also important to write an engaging and concise text in the email that you sent to journalists along with the press release. You should mention in the email that this is a press release about your school's student project. Introduce your class and briefly also the project you are working on. You should also mention that you will be very happy for their support.

You can also publish the press release on your website or in the school magazine.

If you get coverage in the media let the PULCHRA project coordinators know so they can share and spread the coverage.

Newsletter articles

Every month think about the most interesting observations you and your team have come up with. Summarize each success in a paragraph and ideally attach a picture. These paragraphs will come in useful in a Newsletter that informs the fans of your project about your progress. Then send the text along with the picture to the PULCHRA Project coordinators. These paragraphs can also be useful as Facebook posts! If you tag in your post the project PULCHRA Facebook account @PULCHRA.ScienceInTheCity, it can also bring more fans to your Facebook.

Ten rules for online safety

1. Take your pictures

Easily accessible pictures of all kinds on the internet attract us to use them in our article or Facebook post. It is not so simple though. Each image, photo, chart, or infographics has its author. Images are subject to copyright and therefore you can only use them with the permission of the author or if you purchase a license. It is not enough to honestly quote the page where you found the picture; the solution is not to crop or rotate the picture either. If you use a photo illegally, it can cause you an inconvenience in the form of a big fine. It is, therefore, better if you can take a photo yourself. Moreover, one's pictures are usually more interesting, up-to-date, and often even of better quality than pictures you can find on the internet.

2. Grandma's rule

"If you are afraid to show a post to your grandmother so that she doesn't faint, it definitely doesn't belong on the internet." (Dočekal a kol., 2019:32).

3. Watch out for the virus

Catching a virus on the internet is as easy as it really is – sometimes it's not even your fault. That's why it is important to have an antivirus program on your computer and ideally on your mobile phone as well. *"You become aware that you have a virus when the computer is slow, windows are popping up, there is a huge amount of advertising that has never been there, the windows can't be closed, the internet connection is constantly clogged and you can't get anywhere. Some programs may not start at all. The computer may stop responding and a message about a virus attack and that you have to pay a ransom can pop up on the screen. In such a case it is necessary to make a complete scan with an antivirus program,"* (Dočekal a kol. 2019:33-34). The prevention includes not opening email attachments from unknown senders, avoid clicking on unknown links, and caution when downloading games or unknown programs for free.

4. Don't fall for fake news

Fake news, or unverified, misleading, and sometimes completely false news, can make finding new information for your article very unpleasant and slow. It is the speed of today's news that often causes their dissemination. There are several rules to avoid getting caught.

- ✓ **Pay attention to the sources.** If there are no sources in the text, it means that the author either did not find them or did not even look for them and just made up the story. In such a case it is good to search on other news portals and verify the information even in foreign sources. After all, verifying information is good even if the article contains all the necessary details. Different journalists can show you different views on a particular topic. Notice also who is the author of the article, and on which website or news portal you found the text. Tabloids are not a good basis for your research. If the author is not mentioned in the article, you should also be careful.
- ✓ Don't forget that **nothing is black and white** and if an article claims otherwise, it is again a reason for caution. Did the author of the article leave space for other voices? What would the opposition say to the topic?
- ✓ Also, beware of **false authorities**. We can also see it in the media when journalists save time and use clichés instead of searching specific resources: scientists say. But what scientists? From which institute? Asks the curious reader. We can also consider as false authorities those sources which look credible but don't have the authority to talk about the given topic.
- ✓ Fake news authors are not afraid to **manipulate pictures and graphs** but also **our emotions**. Graphic programs can be used to modify images in such a way that they completely change their meaning. Likewise, most article headlines, even in serious media, have a tabloid undertone to draw a reader's attention. If an article arouses strong emotions in you, think about its content critically and rather check it.

5. We are together in this

Let's be at least sometimes together on networks, teachers and students, parents and children. In a community, it is easier to discover what is a lie, what is hypocrisy, what is just innocent fun, and what is really dangerous. Being in the "digital jungle" together and warning each other against danger is a better solution.

6. Unsecured wi-fi

Freely available wi-fi without login and password is another temptation, especially if you don't have data included in your mobile tariff. However, it is the unsecured wi-fi that you should be very careful about. Maybe someone wants to give you free access to data but it's also possible that they just want to get to your email, your Facebook profile, or even to your internet banking. The creator of a fake wi-fi can monitor your activity online, what websites you visit, what passwords you use. Also try to avoid your mobile phone, tablet, or laptop connecting to a wi-fi automatically. Be extremely careful when downloading applications and programs on an unknown wi-fi. An unknown hacker can push an

infected form of a program instead of its right version. Nevertheless, if you know the wi-fi provider, for example at someone's home or on a train, feel free to connect.

7. Personal information does not belong on the Internet

Think twice before sharing information such as your mobile phone, address, or your age. Not only can companies use them for targeted advertising, but based on your personal data online, a stranger can get to your home, for example.

8. Shift evenly between the time online and other activities

Even if we follow all the security rules on networks, the rule “everything in moderation” applies here. Plan your work time in advance and do a little exercise afterwards or relax while walking your dog or doing sports in a park. If we spend too much time on the Internet, we can build an addiction to it. We do not yet know the consequences of the blue radiation from monitors, after all, they have been with us for quite a short time. *“However, the first results imply that we should limit the radiation – turning off wi-fi for the night, not sleeping with a mobile phone by your head, and running into nature.”* (Dočekal, 2019: 21).

9. Watch out for hate speech

The Internet has given us freedom, fast access to information but also a certain level of anonymity. For many people it is easier to pour their hearts out online from a safe place behind their monitor than to tell their opinion to somebody else's eyes. This often leads to unnecessary arguments and emotions. Just try to act online in the same way as if you were treating people you meet in the street. Remember the basics of common decency and don't contribute to the dissemination of hateful comments.

10. Experience, share later

Sometimes we even forget to enjoy life events because we want to share them with our friends on networks. Enjoy the magic of the moment first and share only then. You'll see that nothing happens if you share your post a few hours later or the next day.

#BeSafe: Other sources in English:

- Security on the Internet <https://www.youtube.com/watch?v=HxySrSbSY7o>
- Online safety for younger children <https://www.youtube.com/watch?v=aMSHtE42mml>
- TEDtalk “How to be safe online, from a young person”
<https://www.youtube.com/watch?v=hV1sigh6WKA>
- Reading news online
<https://www.youtube.com/watch?v=IwptAak6Vho&list=PL8TjVyuBdsCnTZiAYcQcF4v-6dw0nIRJm&index=7>

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Appendix 1.

Ten steps for writing a report

1. Choose a current topic that is important for you and you believe that it is also important for your future readers
2. Start with the search, draw on primary and secondary sources
3. Create a set of questions as rescue pillars of your interview
4. Set out to the field, be inquisitive, attentive, and don't be afraid to confront your respondents
5. Don't forget the photos! Fitting and of good quality. There should be some action in the picture and a person as well (don't forget to ask permission to use the picture)
6. Trust but... return to the search – verify information from the field and put it into context
7. Start writing. Begin with a story that draws the reader into the plot and continue with the facts and information
8. Alternate information and narrative paragraphs
9. Create a catchy, striking, but true headline. Intersperse the text with subheads
10. Don't forget to re-read the text

Appendix 2.

Ten rules for online safety

1. Take your pictures
2. Grandma's rule
3. Watch out for the virus
4. Don't fall for fake news
5. We are together in this
6. Unsecured wi-fi
7. Personal information does not belong on the Internet
8. Shift evenly between the time online and other activities
9. Watch out for hate speech
10. Experience, share later

Appendix 3.

Are we well prepared to shoot a video?

Before you start filming:

- ✓ Make sure that you are in a quiet and undisturbed place.
- ✓ Check that you are not shooting against the light.
- ✓ Make sure the image is in focus.
- ✓ Record the sound separately on a mobile phone (second) or a Dictaphone or make sure you are standing close to the person being filmed.
- ✓ Use a tripod to prevent the image from shaking. Turn on a built-in stabilizer on your phone.
- ✓ Shoot the video on YouTube horizontally, but the video on Instagram and Facebook vertically.
- ✓ Don't use the digital zoom. You better go closer to the scene.
- ✓ Remember that you have about three seconds to engage the viewer.
- ✓ Add subtitles to your video.



Part C: Activities for training and deepening reporting skills



PULCHRA

Participatory Urban Learning Community Hubs through
Research and Activation

PULCHRA City Science Reporters

Activities for Training and Deepening Reporting Skills



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824466.

Dear teachers and students, dear reporters,

In this brochure, you will find activities following the information in the Young Reporter's Handbook. You will practice and better understand the individual phases of creating a reporter's output through many activities.

The activities are designed so that you can practice every stage of your reporter's activity, from asking questions to the evaluation of your team's cooperation during the project, data collection, and writing a reporter's output.

Working texts for individual activities were intentionally not included in the material. If possible, please use texts that are related to your chosen PULCHRA City Challenge and to the problem that you focus on in your urban environment. Such texts will be the most helpful background for understanding the problem and creating Reporter's output.

Most activities are designed for face to face work. However, many of them can be easily adapted for online teaching. If health restrictions in your place do not allow face to face meetings, feel free to adjust your activities to the online environment. For support in selecting and editing activities, please contact your PULCHRA coordinator or TEREZA Educational Center at pulchra.czech@gmail.com.

The activities are based on our experience and work with teachers and students in the GLOBE Program and Young Reporters for the Environment Program.

We believe that they will be of benefit to you.

Your PULCHRA team

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Overview of activities

Activity name	Asking questions	Topic selection	Communication with the community	Survey planning and preparation	Orientation in the topic, searching for context, formulation of opinion	Searching for solution and proposal	Work with sources of information	Presentation, photos, video	Evaluation
Sticking a tree of questions	•	•							
Balloon	•	•							
Stem and Roots	•			•			•		
6 W	•				•				
Snowball		•							
Mind map		•			•				
Setting out to the field		•	•						
What we've already found out		•		•				•	
Checklist				•					•
Searching for information					•	•	•		
Different perspectives						•	•		
How to do an interview			•				•		
Our interview			•				•		
Brain writing					•	•			
Searching for consensus					•	•			
Detective plot							•		
Identifying problems in the text							•		
Problem mapping and analysis					•	•	•		
INSERT							•		
Brief as a Twitter Post							•		
What can I believe?							•		
Gapminder							•		
First joint evaluation									•
Target									•
Feelings chart									•

Activities

Sticking a tree of questions ⁽¹⁾

Time: 20 minutes

Goal: Students choose the most appropriate questions to investigate in their future work.

Activity description:

The teacher prepares (or asks students to draw) a large tree on A2/A1 paper or a blackboard. Each student has 3 cards (white), on which they write their questions. Emphasize your students that they should write only one question on each card and as legibly as possible. They stick the cards on the tree (symbolizing apple tree flowers). Then read the questions together. The group then chooses which flowers (questions) are interesting and can be examined in the local conditions. They will become fruits (apples) that students will be dealing with. These selected questions can be rewritten on large colored papers.

Balloon ⁽¹⁾

Time: 30 minutes

Goal: Students write questions on a topic and choose 1–3 most interesting ones they want to discuss

Activity description:

The group can brainstorm questions on the topic you will be solving. Subsequently, the group will agree on the 10 most important questions on the topic. Then everyone imagines they are flying in a balloon. The balloon goes down because the questions represent a burden. To make the balloon fly up again, it is necessary to give up one question and throw it overboard, then another and another, until everyone has only one question left. This can be followed by sharing and comparing in pairs, then a discussion in the whole group which question is the most important and, at the same time, suitable for research and action in your conditions. This will be the one we do not throw away and we will deal with it.

Stem and roots ⁽¹⁾

Time: 15 minutes

Goal: Students practice asking questions and getting information

Activity description:

Divide the students into groups of 4–5. Prepare one interesting question for each group. First, the students in a group write down their answers. Then, they decide who will be a recorder (stem) in each group, the other members become interviewers (roots) inquiring the opinions of the other students in the class. They must remember them (they cannot use pencil and paper) and interpret them to their stem who writes them down. Finally, the stem summarizes the answers to the question that the group managed to get.

6 W ⁽¹⁾

Time: 5 – 15 minutes

Goal: Students look at the topic from different angles and reveal deeper connections.

Activity description

The name of the technique follows from the fact that in English many question words start with W (Why, What, Where, When, Who; How also belongs to them). The most important is WHY? There are

other meanings hidden in WHY? (Because of what? For what reason?). The technique helps students to create multiple inner connections within the topic and thus making it more meaningful. They get the opportunity to find the information and ideas that have remained unexplored so far.

Try the technique with pairs of students and any topic. Ask them to keep asking questions. Motivate students to try different types of questions - not just WHY. This will help to practice and develop the ability to ask questions, which we can then answer with further research. Those who answer the questions should not repeat themselves or end the debate with the statement "simply because".

Snowball ⁽³⁾

Time: 20 minutes

Goal: Students name the environmental problems in their surroundings or in their city, discuss their importance, and topicality.

Activity description:

Make enough space for movement in the classroom or, even better, use the outdoor areas of the school or the surrounding area. Each student receives two papers. Everyone works on their own and the task will be to write on their papers an environmental problem in the place or in the city where they live, which they perceive as current, which bothers them or otherwise touches them. They do not sign the papers. When they have finished, they crumple the paper up into the shape of a snowball.

In the next phase of the activity, the snowball fight will take place. Students will throw snowballs at each other; the rule is that we do not throw in the face and we always pay attention to safety. We let the students throwing snowballs for a while, they can pick up the balls from the ground and throw them again no matter whose the paper originally was.

After finishing the snowball fight, everyone randomly picks up two crumpled papers, unwraps them and each student reads and presents the problems written on the papers in front of them.

At the end of the activity, there will be a discussion about how the students perceive the given problems, which they understand as the most important and urgent to solve, whether there was a problem that has occurred more than once, etc.

Rewrite the problems to the flip and post them in class so that you can return to them in the next lessons.

Mind map ⁽¹⁾

Time: 15 minutes

Goal: Students come up with associations that occur to them in connection with the environmental problems in their surroundings or in their city, ideas for their exploration, and possible solutions. They write down these ideas, logically sort them, and connect them.

Activity description:

Students write the expression "my surroundings" or the name of the topic directly in the middle of their papers (size at least A3). Then they make up associations that relate to their topic (expression). The rule is to write down everything and chain the associations as they come to mind (arrows). After the exhaustion of ideas, the scheme can be connected even more, grouping headings into sets, marking them in color, emphasizing them by circling, etc.

Setting out to the field ⁽³⁾

Time: preparation 30 minutes

Goal: Students survey the perception of environmental problems in their surroundings.

Activity description:

Make your students think about environmental problems in your area. You can use, for example, the Snowball activity to select the problems. Encourage students to form groups according to what problem they would like to solve, what is relevant to them personally. The groups do not have to be of the same size.

The task of the groups will be to prepare and conduct a survey among people from the neighborhood on how they perceive the environmental problem that the students have chosen. They can ask relatives, parents, neighbors, or random passers-by. They will survey whether their chosen problem bothers someone else as well, whether and how they are possibly already solving the problem. And maybe students will find out that people in the area are bothered by other environmental problems that you didn't come up with during the class. Students can use the following questions for planning:

- ✓ Environmental problem (topic) that interests us:
- ✓ The goal of our survey is (What do we want to find out with the survey?):
- ✓ Our hypothesis (assumption) that we want to confirm (or refute) by the survey is:
(Example: Most respondents consider the issue of plastic waste around the school to be a serious problem that needs to be addressed)
- ✓ Who do we want to address and where will we conduct the survey?
- ✓ The questions we want to ask in our survey:
 - 1.
 - 2.
 - 3.
 - 4.
 - 5.
- ✓ How do we do the survey? *(form - questionnaire, survey + brief survey plan - what, who, when, and how)*

What we've already found out ⁽³⁾

Time: 30–45 minutes

Goal: Students present the results of their research; they decide whether it is worth getting on with solving the problem or choose another topic.

Activity description:

Have each group present the results of their survey. They should present the problem they have chosen and the results of the survey. Finally, students in groups should decide whether they want to continue solving the problem they have chosen, and write a report on it and its possible solutions, or decide whether to address a completely new problem they encountered during the survey, which is more interesting for them.

You can use a worksheet with the following questions for the evaluation:

- The number of respondents: (If you surveyed, you can also provide information (in the text or a chart), how many % of respondents were men, how many women, how many respondents were in what age range, etc.)
- What we found out: (Brief conclusions of our survey, interesting findings...)
- Our hypothesis was confirmed/refuted by the survey.

You can also carry out the evaluation in the language class, media education, civics, computer science classes, etc. Even in these classes, the preparation, implementation, and evaluation of the survey are relevant and, for example, in computer science class, interesting charts, tables, etc. can be created from the results.

Checklist ⁽¹⁾

Time: preparation 30 minutes, evaluation always 10-15 minutes

Goal: Students evaluate how far they are with the work on the project (research of the topic, writing the report). They estimate the next steps and the time needed to complete the project. They also evaluate the quality of the output.

Activity description:

The checklist will help you follow the thematic and/or time schedule of the project. You can return to it at any time during the survey and data collection or during the actual creation of the reporter's output. Before preparing for your press output, prepare a list of expected steps required to achieve the output. Return to the list regularly. Tick the completed steps and check whether you do not deviate from the plan thematically or temporally.

You can also use the checklist to evaluate your output. In that case, prepare in advance your expectations from your output in points and then evaluate their fulfillment.

Searching for information ⁽³⁾

Time: 15 minutes preparation + time to perform the search

Goal: Students will search for information on the chosen topic

Activity description:

During the previous work, students have found a topic (problem) they want to address in their reporting activities. Now an important phase of the whole process is coming and that is a search of the selected topic.

This is an important and fundamental part of the reporting work. We perform a thorough mapping and analysis of the problem based on the information we have about the problem and the solution. We examine what has already been written or said about the problem and its solution and from what sources this information comes. We look for credible sources that have evidence for their claims and provide facts that can be verified. We do not work with speculations or assumptions. It is possible that the evidence for the problem or solution you are looking for does not yet exist. In that case, you have the opportunity, if possible, to find the evidence yourself. *(For example, there is no evidence yet of the amount of waste discarded in the vicinity of your school. You can organize a cleaning event and evaluate the amount of discarded waste. This will provide evidence for your claim and accurate data.)*

A worksheet containing the questions below can help students with their search. Ask students to study the questions and try to find answers to them during the research.

- Find information - evidence and facts about your chosen topic (problem and solution) and try to frame your topic as much as possible - find answers to questions WHAT? HOW? WHY? WHO? WHEN? and WHERE?
- What is the topic of your report?
- What specific problem are you going to address in your report?
(Try to narrow down as much as possible and specify what exactly you are going to solve in your report).
- What evidence is there about the problem you selected? (specify sources)
- Where is the problem dealt with? (Does it concern only a certain territory, the whole Republic, Europe,...?)
- Who is involved in the problem - who are the main heroes of your report?
(It will be good to have these people's statements in your report. You can interview them or ask them for their opinion in a different form.)
- Who else has something to say about the problem or its possible solution - who are the supporting characters of your report?
(It will be a good idea to have a statement or quote from these people in your report. You can interview them or ask for their opinion in a different form.)
- What possible solutions to the problem already exist?
(Look for information on whether someone has tried to solve the problem you selected, where and how successfully.)
- What is the evidence that these solutions work?
- What are the limits of the selected solution? *(No solution is perfect, it has its limits, sometimes it can be financially demanding, sometimes it is a lack of manpower, other times an inappropriate location... You need to know about these limits and prepare for them.)*
- Could such a solution work in our country as well? How? What else might need to be done to make it work?

Different perspectives ⁽³⁾

Time: 45 minutes

Goal: Students explore the problem from different perspectives. They discover as many perspectives as possible, empathize with the characters behind those perspectives, and the reasons that lead them to their views and solutions.

Activity description:

Prepare an article for students that depicts the views of several different people on an environmental issue, ideally related to the urban environment. In this activity, students will examine the people involved in the problem and their views on the matter. They will search for reasons and understanding why they look at a thing in a given way, where it comes from, and how one thing can be viewed from different perspectives.

Distribute the article to students and ask them to read it carefully.

Do brainstorming with students and ask them how many different points of view are there concerning the problem – what different characters are there. Who was mentioned in the article and who else was not mentioned but could still play a part in the problem? Students can answer individually (write down their answers and later stick them to a common flip) or it is possible to work with the whole class. It is necessary to give students enough time to think about different points of

view - characters. Write visibly the following questions in front of students, they can help them in this task:

- How does the problem appear from different places and at different times?
- Who / what is affected by the problem? Who / what influences?
- Who is involved in the problem?
- Who cares about the problem?
- Who has the information about the problem?

When you have finished brainstorming, encourage students to choose one of the discussed characters (perspectives/points of view) and try to fill in the table in the worksheet for the given character:

Character	What does the character say?	What is the goal of the character?	What are the interests of the character?	What could change the character's attitude?	What is at stake?

Give students time to prepare and note down to their worksheet a speech concerning their character. Hand out the structure they should follow:

- I THINK ABOUT...the problem... FROM THE POINT OF VIEW...point of view – the character you have chosen
- I THINK THAT... describe the problem from the perspective you have chosen. Be actors - become a character who stands behind this point of view
- THE QUESTION I HAVE FROM MY POINT OF VIEW IS... ask a question you would like to know the answer to from your perspective.

When the students have their characters ready, it is possible to roleplay the individual perspectives in a circle. Encourage students to speak briefly according to the structure, they can use appropriate gestures and movements... They play this role. If more people choose the same role, for example, a scientist, encourage them to try to portray this character from multiple perspectives as well - an adventurer scientist, a scientist who wants to make himself visible, a scientist working for a certain institution... Explain to students that they should try to describe what the character is likely to feel about the problem and how they think rather than the things and scenes their character perceives.

While students present their characters and perspectives, write down each character and their thoughts on a blackboard or flip to create a list of perspectives for further work on the problem. Briefly write down the problem in the middle and complete the characters and their attitudes and questions about the problem. For each person always:

- Character:
- Attitude:
- Question:

When everyone is finished, it is possible to ask if there are other thoughts or questions: What new ideas/thoughts do you have on the topic now? Is there anything that you did not think of before? What new questions do you have?

How to do an interview ⁽³⁾

Time: 45 minutes

Goal: Students get acquainted with the basic rules of how to prepare, implement, and then process and publish an interview. Students will gain basic knowledge and skills for conducting their interviews with a selected person.

Activity description:

You will need a short sample of an interview for this activity.

1. Ask students what they imagine when you say “an interview”. Try together to find and write down the terms that best describe this journalistic genre. Ask them what interview they last saw, read, or heard.
2. Suggest to the students that you now play a sample interview. Their task during the interview will be to monitor how the interviewer asks, what questions he asks, what he asks, and how the interviewee responds to his questions.
3. Play the sample of an interview (a few minutes is enough)
4. Ask students about their observations after they have heard the sample. How was the interview set up? (How did the interviewer start? How did he introduce the interviewee?) What did he ask? How were the questions formulated? What interrogative words did he use most often?
5. Tell students that the work on an interview does not only include the moment we see, read, or hear, but it has several phases - preparation phase, interview phase, interview processing phase. All these phases are essential for a quality result.
6. Divide the students into groups and give each group a paper. One group / more groups will be asked to brainstorm a list of everything that needs to be done for an interview to take place and how to prepare for it. Other group/groups should make a list of what needs to be arranged and taken care of during the interview phase. The remaining group/groups write down what needs to be done after the interview.
7. Students present their lists for each phase, others can add their ideas, the teacher can add what was not said. To make the picture complete, and especially for independent work on the interview, give the students the Interview Phases Worksheet.
8. Students share what they have learned about the interview, what is important for them to bring to their work on the output.

Interview phases Worksheet

Phases before the interview

1. Think about who you are interviewing for. Who is your audience? Who will read or see the interview? (You would proceed differently in interviews intended for children, young people, parents, and differently for the scientific community, etc.)
2. What type of interview are you going to do? (Informational - not published as an interview, but you will include quotes in the article. A short or large interview that you publish in full...)
3. How are you going to conduct the interview? (Personal - face to face, telephone, e-mail, online...)
4. Make arrangements for the interview in advance – date, place, inform about the duration of the interview, who will participate in the interview (if there will be anyone else - photographer, sound man...) and also inform for what purposes the interview is conducted, what will follow the interview, where it will be published and whether the interviewee will have the opportunity to see the interview before publication...
5. Get acquainted in detail with the interviewed person, what he/she is doing, if there have been any reports about this person, whether he/she has already commented on your problem somewhere, how he/she reacts or presents himself/herself and his/her work, ...

6. Study in detail the topic you are going to talk about with the interviewed person.
7. Prepare specific questions that you want to ask (more advanced can have only areas of interest) and set the priority of questions that you definitely want to ask and which can be omitted in case of time constraints. It is usually possible to share areas of questions with the interviewee, the questions themselves are not revealed in the case of a face-to-face or online or telephone interview.
8. Ask open-ended questions in the interview – these are questions that usually cannot be answered in one word. Open-ended questions usually begin with the words How... Why... Describe... State... E.g. to the question *Would you like to have more green areas in your city?* it is possible to answer yes or no, but the question: *Under what circumstances would you be willing to consider having more green areas in your city?* is already forcing a broader answer, so you can go deeper in the interview and learn more information.

The interview phase

1. Come on time and ready, check the technology and instruments to see if it works, the batteries are recharged, ... If there are more people, have the roles clarified – who asks, who records the sound, who is the timekeeper, who takes pictures, who shoots, and hold on to these roles.
2. Try to create a pleasant atmosphere during the interview – you are there to find out the opinion of the interviewee, not to fight or persuade him or her.
3. Formulate the questions concisely and accurately. Do not cumulate more questions into one and do not insert your answers or your own opinion into the questions. The respondent must clearly understand what you've asked and only then you can get a clear answer.
4. Don't ask about things that can be found in other reliable sources, rather ask about things you need to explain, about which you need to know the person's opinion, or how the person wants to proceed, what will happen next...
5. Watch the time and ask consistently the questions that you want the interview to answer. If the respondent avoids the answer or changes the subject, feel free to return to the question again.

Interview processing phase

1. The interview is about the person being interviewed, not about you.
2. The final interview does not have to be and is not an exact transcript of the interview. You can edit sentences but you must preserve the meaning, there must be no manipulation. You can delete things that are not related to the issue. (for example, if we change the subject for a while during the interview or the given sentence is not related to the subject)
3. Follow the rules that you have agreed on with the interviewee in advance. This may include, for example, that the person may want to see the interview before publication.
4. The interviewee does not take any financial reward for the interview.

Our interview ⁽³⁾

Time: 45 minutes preparation + time for the actual interview

Goal: Students choose the person for their interview and prepare everything they need.

Activity description:

Students have already chosen their topic and they have also collected some information about the project. Now their task will be to select the people who have something to say about the problem and its solution and to prepare everything they need to interview them. Students can learn the basic rules of how to prepare, implement, and subsequently process and publish an interview through the How to do an interview activity.

Distribute the Worksheet Interview Card to the students. It will help them independently prepare their interview related to their selected problem and its solution. They can ask you for advice during their preparation. Subsequently, they will conduct the interview and process it for their output.

Interview card

Preparation for the interview:

1. Who are we going to interview? (The name of the interviewee, what role he/she plays in connection with the problem, his/her experience in connection with the problem, what we know about him/her.)
2. Why do we want to do the interview? (What is the aim of the interview and what part of our report should the interview supplement – we want to find out more information about the problem, we want to know the point of view of the interviewee, we want to know the reasons for this point of view, we want to find out if there is a solution to the problem...)
3. For what audience are we doing the interview? (Who will be our readers, viewers? What knowledge do they have about the problem? What age group is it? Do we already know the medium for which we do it?)
4. What do we want to know from the interview? Write down 2 questions that you definitely want to get answered in the interview.

The specific form of the interview:

1. What type of interview is it going to be? (Personal – face to face, telephone, email, online – skype,...)
2. Arranged date, place, and duration of the interview:
3. How are we going to record the interview? (What technology are we going to use, how are we going to record the answers to our questions and the course of the interview – dictaphone, mobile phone, camera, recording of the online interview or telephone conversation – the consent of both parties must be recorded,...)
4. What is my role during the interview and what exactly am I supposed to do? (I do the interview, record the interview, record the sound, take notes, take photos, watch the time, process the interview,...)

List of questions for the interview: (Write down the questions you want to ask in the interview in the order in which they follow each other. In case of time constraints, underline, or otherwise mark the questions that have priority, those are the questions you definitely want to ask.

1/

2/

3/

4/

5/

6/

7/

8/

9/

10/

How did the interview work out? Did we learn what we needed or even something extra? What worked out well and what would we do differently next time? (Write down your impressions of the interview)

Write down the specific parts of the interview in the final form (after all adjustments) that you will use in your report. (What exactly will you use from the given interview for your output, what will the result be like.)

Detective plot ⁽¹⁾

Time: 20-40 minutes

Goal: Students evaluate what they know from a story and what they still need to find out / ask about.

Activity description:

Prepare a short story containing a plot with a topic you want to discuss with the students. You can skip the end of the story and have the students investigate it. Ask them to read the story in groups or read it together out loud. The work of detective teams follows. First, each detective writes down a list of things they know and a list of questions that need to be revealed. You can draw the table below on the blackboard for students. The detectives share their lists in pairs and then in the whole class. The subsequent joint discussion can be closed by a summary of how the detective team should proceed.

My detective diary

What do I know for sure?	What do I need to find out, what to ask?

Stock market for solution proposals: Brain writing ⁽³⁾

Time: 20 minutes

Goal: Students formulate their views on the problem based on their previous work and try to find suitable solutions or suggest their own solution to the problem so that the solution is acceptable both from an environmental point of view and from the point of view of social consensus.

Activity description:

Write the problem that the students are dealing with in their project in the middle of the blackboard. Ask students to state solutions to this problem that they have already found in their research or that have been suggested by someone in connection with their chosen problem. Write them next to the problem and leave enough space for other solutions that emerge from the following work.

Students sit in a circle (you can divide the class into 2-3 groups). Each student has a pen and writing paper. Every student writes on his/her paper their idea of how to solve the problem written on the blackboard. Then they send the paper clockwise to their neighbor and the neighbor's task is to develop and improve this idea... The process continues until the papers return to the original authors or it is specified in advance how many improvements the ideas will go through (e.g. 3 swaps).

Students read the ideas and improvements aloud and the teacher (or a student) writes everything on the board to the already written problem and its solutions, or places papers around the problem (stick with a tape,...).

Searching for consensus ⁽³⁾

Time: 20 minutes

Goal: Students understand that if a solution to a problem is to be successful, it is necessary to reach a social consensus on the solution.

Activity description:

Divide students into groups of 4-5 and give them the Diamond Solution Worksheet. How to prepare the worksheet: Draw a picture of a diamond in the middle of the worksheet. Write your problem in the middle of the diamond. Write to the individual poles of the diamond:

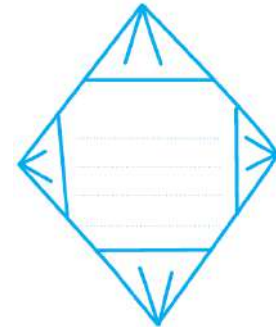
Up: Compromise

Down: Consensus

Left: What may be said against your solution:

Right: Proposed solution:

Under the headings leave some space where students will write their notes.



The aim of this activity is to understand that if the solution to the problem is to be successful, it is necessary to reach a social consensus on the solution. Extreme proposals often lead to conflict, which in turn makes it difficult to communicate and solve the problem. A solution that may seem the best to us may be completely unacceptable to others, so it's a good idea to think about the opposite poles of the proposal and try to find a consensus.

Each group writes down the problem they are solving in the middle of the worksheet. On the right side of the problem, they write the solution from the offered options, which seem ideal for working with the problem. On the left, they will try to formulate what a solution or counter-argument of a party that does not agree with their current solution would look like, what could such a person say against their solution. Students thus try to identify specific areas that could cause a possible conflict with the opposing party.

To avoid conflict, it is necessary to find solutions or arguments that moderate the conflict and try to find an agreement between the two parties. We wonder if we have evidence that, for example, the proposed solution already works somewhere, but we also take into account the fact that we are aware of certain limits of the solution and we know that no solution is ideal.

Sometimes a disagreement between two or more parties is resolved by a compromise, which does not lead to the satisfaction of the parties, on the contrary, all parties feel slightly cheated. Explain to students what a compromise is. It is a way of deciding or resolving disputes. It indicates an outcome to which all parties involved can accede, but which does not mean an optimal way of resolving disputes, as in fact each party has to make a concession, and this doesn't fulfill the expectations of any of the negotiating parties. Everyone leaves with the feeling that they had to step back and compromise. A compromise usually does not lead to a satisfactory result and leads to a loss of motivation for the cooperation of the parties involved.

Students try to write to the lower corner of the problem what such a compromise could look like for their chosen solution to the problem.

On the contrary, finding a solution that is acceptable to all, where no decision is made against the will of an individual or a minority and the group adapts to the needs of all members, is called consensus, sometimes a "win-win" solution. No one feels defeated or forced to make concessions. Moreover, if everyone agrees with the decision, they will be much more devoted to accomplishing the decision.

Nevertheless, reaching consensus is certainly not easy. It takes time, and most importantly, you have to believe that there is a better solution than the ones already on the table. Just figure them out.

Students try to think of such a proposal and write their ideas to the top corner of the problem. It will probably not be easy for them, the compromise will most likely be much easier to formulate but it would be good to at least try to think about what consensus might look like. Nonetheless, this is the solution we want to reach in case of our problems. Don't be desperate if you won't be able to find them or come up with them together right away. The main thing is to realize that the right solution is not when we have outvoted someone, but mostly the one that takes into account the views of several parties.

There are usually more possible proposals made in the search for consensus, and then the one that is acceptable for all is sought. It is important to find a solution in which everyone present wants to participate and will be happy about. This is the fundamental difference between compromise and consensus. Students write consensus over the problem.

The groups then present their work to each other. Students then try to choose from the offered solutions the one which they would be able to agree on and on which they would be able to cooperate. You may not find such a solution in class, it does not matter, it may take longer. Give yourselves the time.

Reflection

At the end of the lesson evaluate with the students how they managed to find a solution, which phase was easy for them and which, on the contrary, the most difficult and why.

Problem mapping and analysis ⁽³⁾

Time: 45 minutes

Goal: Based on work with a text, students recognize and define an environmental problem, identify its causes and consequences, and possible solutions to the problem.

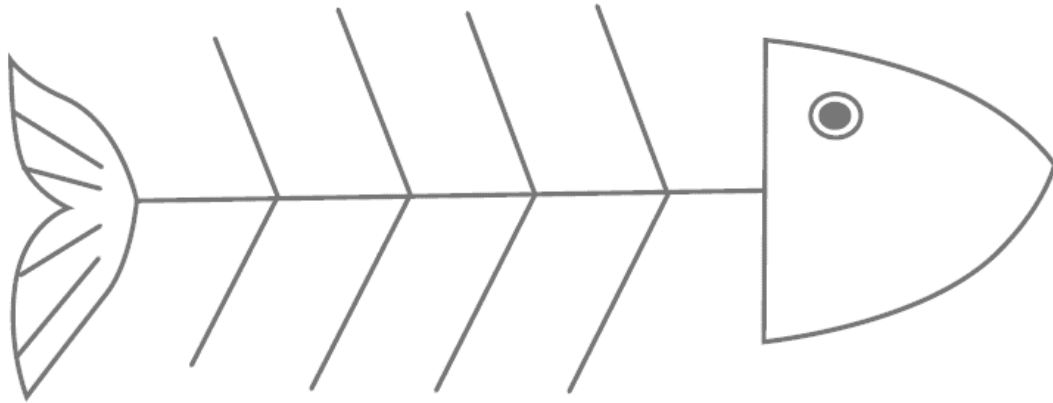
Activity description:

In the previous work, students have found a topic (problem) that they want to address in their reporting activities. Now an important phase of the whole process is coming and that is research of a selected topic. They will map and analyze various sources in detail and look for information. The search phase has several levels – searching for information in the media and verifying sources, students will also further deal with the evidence of the existence of the problem and its solution, search for scientific studies and interview people involved in the problem and solution. All of this is important so that they know as much as possible about the problem and its solution and can answer the questions What, Why, How, Who, When, and Where in their report. In this activity during the work with text, you will try how to frame and define the problem and how to prepare for the search phase.

At the beginning of the lesson, have students read an article dealing with an environmental problem. Divide the students into groups of about 4 and hand out to all students a Worksheet with the following questions:

- What is mainly addressed in the article?
- Where is the problem dealt with? (Does it only concern a certain territory, the whole state, Europe,...?)
- Who mainly solves the problem in the article?
- What possible solutions to the problem are mentioned in the article?

- What other groups of people are mentioned in the article in connection with the problem?
- What are the causes of the problem? Write them down in the following diagram called a fishbone. Write the problem briefly in the fish head and to the individual bones write down the possible causes of the problem that were mentioned in the article.



- What are the possible consequences of the problem described in the article?

Students in groups discuss questions from the worksheet and write down the results. Then the individual groups share their outputs, one group says the answer to the question, the other groups add their answers and they take turns.

Work with the Fishbone Diagram: This technique is used in this lesson to help each group think about the possible causes of the problem. Pupils write the problem in the fish head (e.g. drought in the landscape) and then write possible causes of the problem to individual bones by writing more easily detectable causes towards the head and more complex and complicated ones towards the tail. (For example, if the problem is drought in the landscape – the cause that is more comprehensible for us is the lack of greenery in the landscape, and more complex is, for example, global warming.)

In the second part of the activity, students will focus on defining the problem. The point is to briefly summarize the problem that emerges from their previous analysis. The definition should answer the questions of what, when, where, who, how, and why. First, each group defines the problem on their own, students then share their group findings, and finally, the whole class tries to agree on the problem definition from the article. They write down the definition of the problem in the worksheet.

INSERT ⁽¹⁾

Time: 25 minutes

Goal: Students get acquainted with the text.

Activity description:

When working with the text using this method, students write signs in the text indicating importance, understanding, doubts, etc. It is possible to choose other markings according to the habits of the class. If you are starting with this method, it is a good idea to choose only 2 markings at the beginning.

Prepare a short text for students. Ask them to read the text individually and use the markings. Then let the students discuss in groups what they have marked in the text and why. Share the result with the whole class.

What Can I Believe? ⁽¹⁾

Time: 30 min

Goal: Students assess the credibility of various sources of information, or evaluate which sources are more reliable and which can be less trusted.

Activity description:

Prepare short texts from various sources.

At first, the class works together. The teacher or selected students read all extracts aloud. This is followed by a group work assignment (groups of 3–5 students). Each group fills in the table:

Task 1 Add the names of sources to their text extracts

Task 2 Write down the justification for your choice

Task 3 Evaluate the reliability of individual sources for the students (i.e. how much this resource can be trusted).

We often assess the credibility of a source based on our previous experience. Sometimes the level of expertise of a text can also help us. For professional texts, the principle is that in the case of adopted data, we refer to the original author together with the year of publication of the work (so-called citation). The reader then has the opportunity to search for the original information and immediately knows how current the knowledge is. For professional texts, there should always be a list of works cited at the end.

The reliability of information sources is assessed by a 1 – 5 “grade” according to how reliable the students think it is:

1 = very reliable

5 = not reliable

Make sure that the students understand the concept of reliability. The groups then present how they filled in the table and a short discussion can follow about why they think some information sources are more reliable than others.

Text sources:

Text 1 / Narrative - what is said, e.g. a fairy tale (About Little Red Riding Hood)

Text 2 / website about mountains and tourism

Text 3 / tabloid article

Text 4 / national newspaper

Text 5/ professional journal on nature protection

Gapminder ⁽³⁾

Time: 15–20 minutes

Goal: Through the test, students will realize how their view of some problems is affected by the media.

Activity description:

This worksheet is a simplification of the Gapminder application. Compared to the application, it contains only 10 questions. You will have to measure the time as well as evaluate the correctness of the answered questions. The full electronic version of Gapminder is available here:

<http://forms.gapminder.org/s3/test-2018>.

This version has the time set for each question and after the time limit expires, it automatically switches to the next question and evaluates the correctness of the answered questions after the end of the whole test.

Test

Distribute the Gapminder Worksheet to students or ask them to run the electronic version of Gapminder on their mobile phones. Introduce the activity only briefly. Students will know that they will now take a short test. Don't tell them more so that the results are not affected. The electronic version measures the time and, in the end, evaluates the correctness of the answers. When working with worksheets, you will measure time (give students 30 seconds to answer each question, so the total time will be 5 minutes). Do not extend time, time pressure is important in the activity. After the time has elapsed, evaluate the correctness of the individual questions. Read the question and say which answer was correct. At this point, do not discuss the options, just reveal the correct answers, and let the students calculate how many questions they have answered correctly. Correct answers to questions from the Gapminder worksheet: 1c, 2a, 3c, 4a, 5b, 6c, 7c, 8c, 9c, 10a

Test evaluation

Ask students to raise their hands, if they had all answers correct, then those who had 9 when working with the worksheet (12 in the case of the electronic version of the test), 8 (11), 7 (10)... Write the number of students for each number of correct answers on the board.

Discussion

Ask students what they think is the aim of the test and what the results tell us. (Although the test may turn out slightly differently in each group, practical results reveal that most of the groups had only a small number of correct answers. This indicates that we consider some of the world's problems more negative than they actually are.) Ask students why they think we perceive the world from the worse perspective? What is the reason? Where do we get information from? What affects us? Which answers to the questions surprised you?

The activity can be followed by a discussion in which you can discuss with the students the influence of the media on our worldview. How the media report on problems. How it can make people feel. Do the media inform sufficiently about appropriate solutions to the problem?

Worksheet

Gapminder (Source: <http://forms.gapminder.org/s3/test-2018>)

Try the WORLD FACT TEST! There are 10 questions for you. You have 30 seconds for each question, a total of 5 minutes for the whole test. Circle the correct answer. After 5 minutes, the questions will be evaluated. No one will know your specific answers.

1 / In the last 20 years the proportion of people living in extreme poverty worldwide, has...?

- a) almost doubled
- b) remained more or less the same
- c) has decreased by almost half

2 / How many of the world's 1-year-old children today have been vaccinated against some disease?

- a) 80%
- b) 50%
- c) 20%

3 / How has the number of deaths per year caused by natural disasters changed over the last hundred years?

- a) More than doubled
- b) Remained more or less the same
- c) Dropped to less than half

4 / Worldwide, 30-year-old men have spent 10 years in school, on average. How many years have women of the same age spent in school?

- a) 9 years
- b) 6 years
- c) 3 years

5 / The United Nations predicts that by 2100 the world population will have increased by another 4 billion people. What is the main reason?

- a) There will be more children (under age 15).
- b) There will be more adults (15-75).
- c) There will be more very old people (above age 75).

6 / In low-income countries across the world, how many girls complete fifth grade?

- a) 20%
- b) 40%
- c) 60%

7 / There are two billion children in the world today, aged 0 to 15 years old. How many children will there be in the year 2100 according to the United Nations?

- a) 4 billion
- b) 3 billion
- c) 2 billion

8 / How many people in the world have some access to electricity?

- a) 20%
- b) 50%
- c) 80%

9 / What is the life expectancy of the world population?

- a) 50 years
- b) 60 years
- c) 70 years

10 / Tigers, Giant Pandas, and Black Rhinos were listed as threatened species in 1996. Since then, have any of these species become more critically endangered?

- a) None of them
- b) One of them
- c) Two of them

The number of correct answers: _____

First joint evaluation ⁽²⁾

Time: 10 min.

Goal: Students realize that each individual can perceive and evaluate the same output a little differently.

Activity description:

Divide the group into pairs. Hand out one short article to each pair. Each student evaluates the quality of the output on his/her own and writes evidence supporting the evaluation. Students discuss

their opinions in pairs. As a result, students think about their perception of quality and realize that each individual sees and evaluates the output a little differently.

Target ⁽²⁾

Time: 10-15 min.

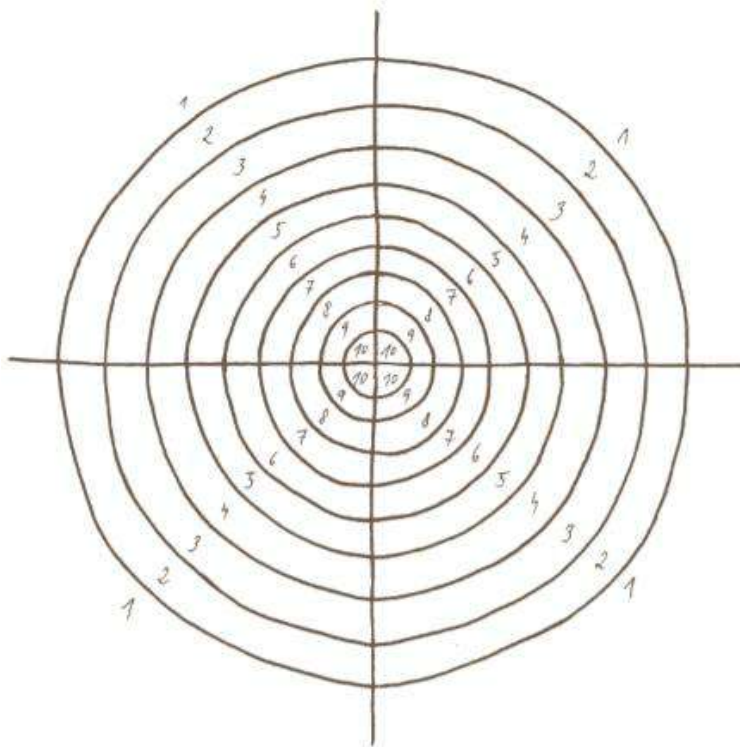
Goal: Students evaluate their activity.

Activity description:

The target can be used to evaluate the result of student work, its individual parts, or cooperation in a team. Give students a picture of the target and ask them to indicate in the target how they feel about the activity. Students rate on a scale from 1 to 10, with 1 being the best grade.

Each section of the target can be used for one aspect of the project evaluation. Students can also mark their assessment in one common target using different colors.

Finally, ask students to share and discuss their results in groups.



Feelings chart ⁽²⁾

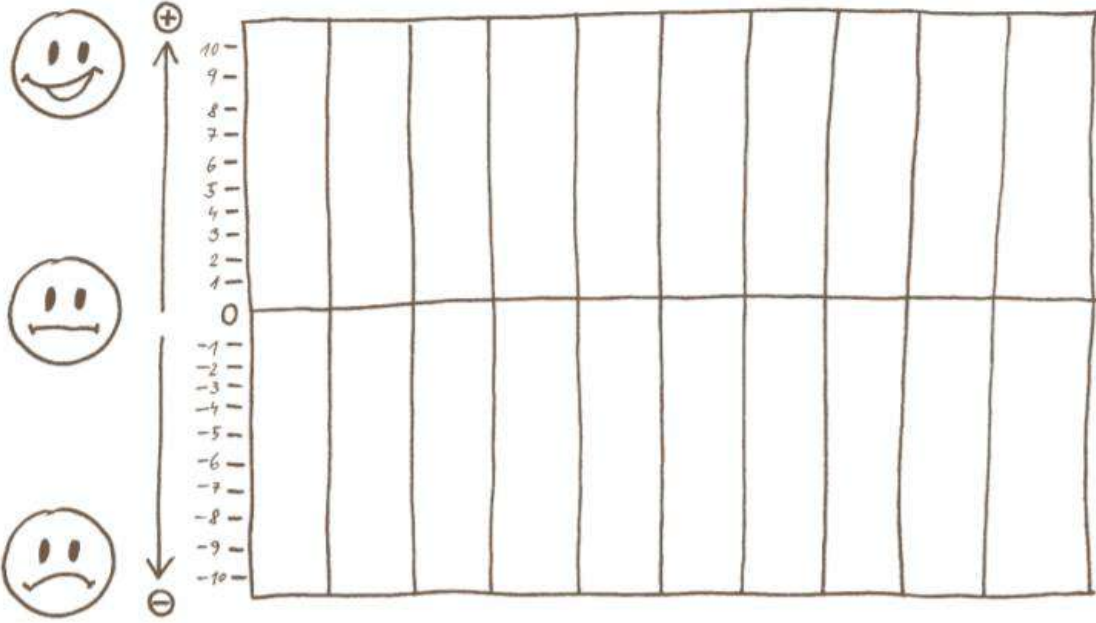
Time: 10-15 min.

Goal: Students evaluate their activity.

Activity description:

Evaluation can be used to evaluate the result of student work, its individual parts, or cooperation in a team. Give students a picture of the chart and ask them to indicate in the chart how they feel about the activity. Students rate on a scale from 10 to -10, with 10 being the best grade. Pictures of smileys can help them in the graph. Vertical lines separate the evaluated aspects.

Finally, ask students to share and discuss their results in groups



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