Evaluating school projects

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Session Plan

- Overview of criteria for the assessment of Students' Projects
- Presentation of an example project (how to fulfill the criteria)
- Self-reflection, fine-tuning of the projects
- Peer-assessment of projects
- Plenary Presentation/Interaction, Feedback provision
- Impact assessment, SMQ Presentation
- Q&A

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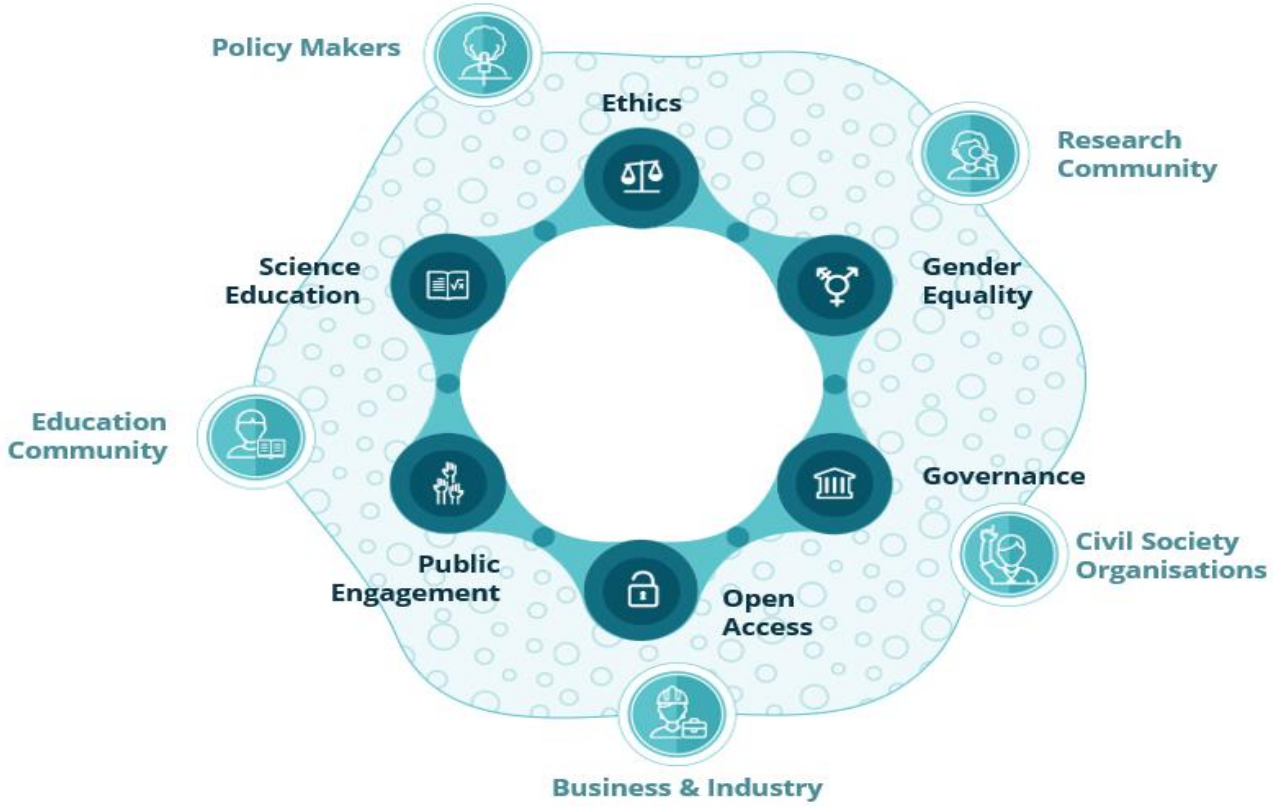
Responsible Research and Innovation

- RRI (Responsible Research and Innovation) is an inclusive approach to research and innovation (R&I), to ensure that societal actors work together during the whole R&I process



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RRI Principle		What does this principle mean?	
	**Governance**	• Collective responsibility for the impact of R&I • Participatory governance to cope with new and unexpected challenges • Transparent and reflective procedures	• Accountability and responsiveness towards society • Anticipation of unintended consequences from R&I • More at https://www.rri-tools.eu/governance
	**Public Engagement**	• Enhancing and widening participation at all R&I stages • Leading to new and profitable partnerships • Advancing towards collaborative decision-making and shared responsibility	• Guaranteeing a transdisciplinary approach • Promoting Citizen Science and Open Innovation • More at https://www.rri-tools.eu/public-engagement
	**Gender Equality**	• Promoting gender balanced research teams • Breaking down gender stereotypes • Raising awareness towards for gender-sensitive investment & funding • Ensuring gender-friendly workplace cultures	• Considering the gender dimension in research and innovation • Gender balance in decision making • More at https://www.rri-tools.eu/gender-equality
	**Science Education**	• Promoting innovative problem-solving and critical thinking • Embedding social, economic and ethical principles • Promoting engagement and an entrepreneurial mindset • Empowering citizens to participate in science policy making	• Sharing responsibility while solving social challenges • Facilitating a strong interdisciplinary approach, and stakeholders' involvement • More at https://www.rri-tools.eu/science-education
	**Ethics**	• Incorporating Research Integrity • Sharing responsibility for the impacts of science • Reflecting on people's ideas and concerns about R&I	• Aligning research to social values • Deliberating on the moral issues of R&I with a diversity of actors • More at https://www.rri-tools.eu/ethics
	**Open Access**	• Free access, no more limits • Access to peer-reviewed literature • Access to publications, access to data • Shaking up the current publication system and opening new horizons	• Transparency and accountability • Full re-use rights • More at https://www.rri-tools.eu/open-access

[1] Governance	Example: an activity that considers improving green spaces in the community where the school is located may incorporate experts in gardening (whether businesses or local government), meteorologists or even families interested in the matter. ***Is there a definition of collaboration on the part of agents from the milieu, and clear and complete information is provided as to who is who and what their duties are?***
[2] Engagement	Example: following on from the previous example, the different stakeholders do not need to simply be one-directional communication channels – they should also form an active part of the educational process, e.g. by providing feedback to students' comments, adding new resources so as to expand information or putting forward new ideas to those originally proposed. ***Do all participants and agents involved share work and responsibilities?***
[3] Gender equality	Example: a series of principles need to be pursued that may ensure gender equality. For instance, it is important that the subject matter does not in itself refer to gender stereotypes (e.g. football/cars, beauty/care) , and there must be gender equality when putting together working parties whereby roles rotate among the different members. Any external agents who take part also need to be of various types in this sense to ensure that young people may have reference points for different genders ***Is the activity inclusive and open for all genders? (men, women, others, etc.)***
[4] Science Education	Example: the gardens around the school are public spaces which we, apart from improving, need to learn to look after, protect and hold in high regard in modern-day societies and in urban and rural milieu. ***Does the activity prepare students to become more responsible citizens? Does the activity empower students with 21st century skills?***
[5] Ethics	Example: an activity needs to be governed by ethical principles and values in what is being offered with regard to all agents involved, while at the same time also taking into account the opinion of all students and stakeholders engage **D*oes the activity bring out ethical dimensions of science? For example social and environmental principles, decisions regarding the public spaces, respect of the commons...?***
[6] Open Access	Example: tools such as the Internet enable us to easily publish and share the materials used to prepare an activity online, and even our work and conclusions. This may be material and multimedia content (audio, photographs or video) in a blog format, or in general any online place where the project is shared with other individuals who are interested in it. Students need to be encouraged to publish the result of their work and talk during the process about the different intellectual and industrial property models and licenses, etc. ***Are all of the activity materials posted online, and are they freely accessible by the public?***

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	RRI Pillars				
Indicator	Strongly disagree 1	2	3	4	Strongly agree 5
GOVERNANCE	No collaboration with the school on the part of agents from the milieu is included.	Which agents from the milieu are to be involved in the activity is not clearly defined, although their existence may be deduced.	There is a definition of collaboration in the activity on the part of agents from the milieu, although this is vague and not concise.	There is a definition of collaboration in the activity on the part of agents from the milieu, although this does not deal with the details of their responsibilities.	There is a definition of collaboration on the part of agents from the milieu, and clear and complete information is provided as to who is who and what their duties are.
ENGAGEMENT	Proposes a chaotic, disorganised participation model in which neither roles or the way of working are defined.	There is no definition of the responsibilities required of those involved in the activity, and so it is likely to end up being chaotic and disorganised.	There is no definition of responsibilities required of those involved in the activity, although it is expected that this may allow for the proper distribution of work load and responsibilities.	The participation model is defined and enables proper and fairly orderly work to be carried out with room for improvement but enables responsibilities to be shared among all those involved in the activity.	Proposes a perfectly organised, categorised participation model in which all participants and agents involved share work and responsibilities.
GENDER EQUALITY	The approach is different according to the gender of the individuals who develop it, having a negative effect on one of them.	Does not provide an inclusive approach for all social genders, having a negative effect on at least one of them.	Does not take into account the gender dimension of individuals, although it retains a neutral position in this aspect to the extent that it does not affect participants.	It has not been specifically developed with gender equality in mind but does promote it by providing a neutral approach in which it is developed irrespective of the gender of individual participants.	It has been developed specifically to promote gender equality among its participants.
SCIENCE EDUCATION	Proposes an approach that goes against responsible citizenship, acting negatively with regard to this characteristic.	Not only does it not take aspects of responsible citizenship into account, but that it is actually against them.	Does not define the characteristics of responsible citizenship or works on them, to the extent that the activity has no bearing on this characteristic.	Does not define the characteristics attached to responsible citizenship, although it does act in favour of them.	The activity prepares students to become more responsible citizens, empowering them with 21st century skills
ETHICS	Not considered with ethical purposes in mind or fails to take them into account at all.	An ethical approach can be deduced, but this is secondary in terms of the activity.	There are ethical dimensions, but these are vague or not concise.	Considers the importance of ethical aspects, but these are not priority objectives for the activity.	One of its main objectives is to work on ethical dimensions in science and society.
OPEN ACCESS	There are no materials or resources available openly or free of charge.	There are free-of-charge materials and resources available, but these are not deemed essential to develop the activity.	The essential materials and resources are available online and free of charge.	A large proportion of the materials and resources are available online and free of charge.	All materials and resources are available online and free of charge.

FICS / DFC Approach

- **Design for Change** is a global movement founded in 2009 with the conviction that if young people were empowered and made to feel that they could take matters into their hands, they would change the world for the better.
- They have developed a simplified version of the design thinking process called **FICS** and based in 4 steps:
  - FEEL any problem that bothers you;
  - IMAGINE a way to make it better;
  - CREATE an act of change; and
  - SHARE your story of change with the world.
- *You can read more information about DFC at http://www.dfcworld.com/, know more about the model with their toolkit http://dfcworld.com/file2015/toolkit_global.pdf*

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Feel – Think from your heart	This phase builds observation, listening and understanding multiple perspectives of the problem.	• How do you plan your students will FEEL in the activity?	• How do I decide upon the local need?
Imagine - Visualize change	This phase builds Critical Thinking and Creativity.	• How do you plan your students will IMAGINE in the activity?	• How do I think about the solution?
Create - Make change happen	This phase helps children plan their act of change.	• How do you plan your students will DO in the activity?	• How do I implement the project?
Share - I can! Now you can too!	This phase allows children to think of different ways to spread their story and inspire others.	• How do you plan your students will SHARE in the activity?	• How do I share? Become a Open School Hub?

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Other criteria

- Quality and realisation
  - Rich Description/resources: images, links to resources (& research work)- use of digital media, tools and interactives
  - Tips for successful publication:
    - try to connect the project with the local community issues,
    - create or upload your project logo,
    - try to have short but clear text descriptions,
    - try to have at least 1 picture on every page,
    - have your videos on YouTube and embed the links
- Innovation
- 4Ps
  - **Placed**: The activity is located, either *physically or virtually*, in a world that the student recognizes and is seeking to understand
  - **Purposeful**: The activity feels *authentic,* it absorbs the student in actions of practical and intellectual value and fosters a sense of agency
  - **Passion-led**: The activity enlists the outside passions of both students and teachers, enhancing engagement
  - **Pervasive**: The activity enables the student to continue *learning outside the classroom*, drawing on family members, peers, local experts, and online references as sources of research and critique.

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How RRI ac

LSTT aims at changing the attitudes of managers and administration. Support from school management is key

Engagement through the involvement of the local community. In the context of LSTT, students take part in public engagement and dissemination activities for the promotion of their theatrical performance and for creating synergies with local communities in order to get support for the development of the performance and also to raise awareness on the scientific issues on which their performance is being based.

Girls and boys equally participate and share their ideas. Through the intersection of arts and science, genders are equally represented in the school projects

This is the core aim of LSTT. Participants learning science through creative and art activities using theater's technics and methods

Participants have Open Access to thousands of recourses (ISE, OSOS). Also they are sharing their material to thousand students and teachers using LSTT web community

Drama, teamwork, role playing, role exchange are all techniques that LSTT is using; these foster the development of ethics to the students, teachers and all the involved stakeholders

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Time for self-reflection

- Do you have any ideas on how to improve your project description?
- 15 min to do it!

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Peer-assessment of projects

- Working in groups of 2
- Choose one project of your colleague and complete the form
- Plenary presentation/discussion will follow for the provision of feedback

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Impact Assessment

- SMQ Presentation

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