



**Open
Schools for
Open
Societies**

OSOS GLOSSARY

A short introduction to the most common terms used in the OSOS portal and documents



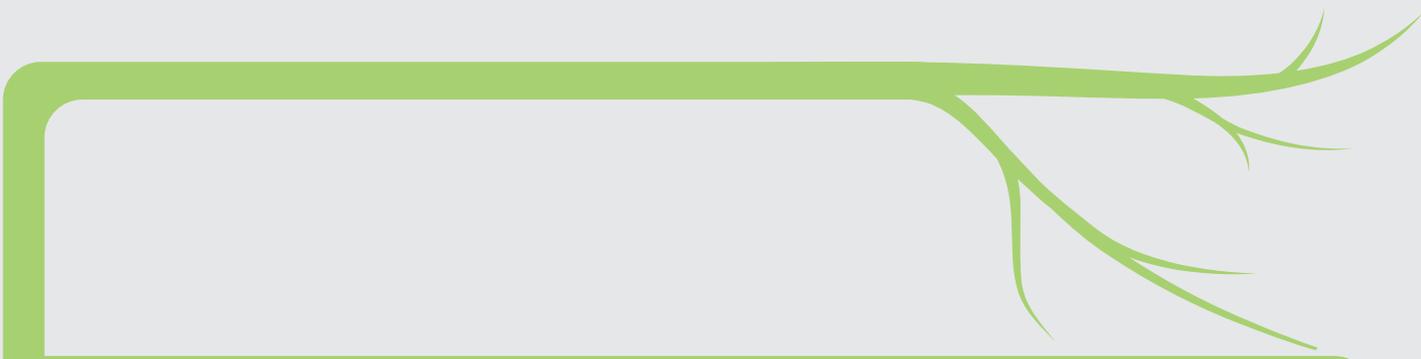
Open School Culture: An Open School culture imports external ideas that challenge internal views and beliefs and, in turn, exports its students – and their assets – to the community it serves. Such an engaging environment makes a vital contribution to its community: student projects meet real needs of the community outside of school, they are presented publicly, and draw upon local expertise and experience. The school environment fosters learner independence – and interdependence – through collaboration, mentoring, and through providing opportunities for learners to understand and interrogate their place in the world.

Open Schooling Hub: An Open Schooling Hub is an open, curious, welcoming, democratic environment that supports the development of innovative and creative projects and educational activities. It is an environment that facilitates the process for envisioning, managing and monitoring change in school settings by providing a simple and flexible framework, so that school leaders and teachers can innovate in a way appropriate for schools' local needs. Becoming an Open Schooling Hub demands rethinking not only the pedagogy but also the structure and culture, the way we interact with stakeholders and policy makers to benefit the school projects and curricula.

Open Schooling Roadmap: The Open Schooling Roadmap supports schools to reflect on, plan and undertake changes in education for 21st Century learning. Applying the OSOS Approach in local settings, actually validates that schools have much to gain by fostering connections between formal and informal learning, between existing providers of education and new entrants. Such an action asks for knowledge areas integration, effective and closes cross-institutional collaboration, and organisational change in the field of science education. The Open Schooling Roadmap is the first step in a journey of educational reform that might take many years. It is the map. It must be noted though that the achievement of high quality science teaching requires the combined and continued support of all involved actors, researchers, science communicators, policy makers and curriculum developers, science teachers' educators, teachers, students and parents.

Responsible Citizenship: Responsible Citizenship views citizenship as a total practice of responsibility between individuals and their political, social, economic and natural environment. It goes beyond formal relationships of rights and duties between the citizen and the state, and stretches the spatial, temporal and material boundaries of citizenship to those of the global economy (Lister, 2007). Since Responsible Citizenship extends citizenship responsibilities to an expanded notion of equity and caretaking and gives more weight to universal principles of democracy, human rights and global commons (Micheletti & Stolle, 2012), some scholars claim that this new version of citizenship has the potential to challenge and change the underlying structural, root causes that led to environmental and social justice problems in the first place (Barry, 2006).

RRI. Responsible Research and Innovation: Responsible research and innovation is an approach that anticipates and assesses potential implications and societal expectations with regard to research and innovation, with the aim to foster the design of inclusive and sustainable research and innovation. Key issues that should be taken into account:

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- Ethics
 - Gender Equality
 - Governance
 - Open Access
 - Public Engagement
 - Science Education

Science Capital: Science capital refers to science-related qualifications, understanding, knowledge (about science and 'how it works'), interest and social contacts (e.g. knowing someone who works in a science-related job). Science capital is unevenly spread across societal groups. (Archer et al. 2013, p. 3)

Project-Based Learning: Project-Based Learning is the main pedagogical approach of the Open School Culture. Whilst teachers draw distinctions between project, inquiry, and problem based learning, in reality the differences are minor – particularly in comparison to more transmissive, lecture or worksheet-based forms of learning. Great projects grow from inquiries in order to solve problems. Students found them highly engaging because they are conducting work that is meaningful, to them and their families or communities. Learning begins with a problem to be solved, and the problem is posed in such a way that children need to gain new knowledge before they can solve the problem. Rather than seeking a single correct answer, children interpret the problem, gather needed information, identify possible solutions, evaluate options and present conclusions. They relish the opportunity to make adult-world connections, work across disciplines, and in extended blocks of time.

OSOS Approach: The OSOS approach provides a powerful framework for school heads to engage, discuss and explore: how schools need to evolve, transform and reinvent; how schools facilitate open, more effective and efficient co-design, co-creation, and use of educational content (both from formal and informal providers), tools and services for personalized science learning and teaching; how schools can become innovation incubators and accelerators. The main aim of the OSOS approach is to describe and implement at scale a process that facilitates the transformation of schools to innovative ecosystems, acting as shared sites of science learning for which leaders, teachers, students and the local community share responsibility, over which they share authority, and from which they all benefit through the increase of their communities' science capital and the development of responsible citizenship.

OSOS Accelerators: The OSOS proposed best practices act as accelerators of the introduction of OSOS approach in the participating schools. They help innovative schools to proceed more and develop their innovative ideas to new localised projects that could provide new solutions for the school and its community, for bringing the gap between formal and informal learning settings and creating new opportunities for personalisation at different levels (student, teacher, school).



OSOS Communities: OSOS capitalizes on the ODS school communities which currently involve 5.000 schools from all over Europe (portal.opendiscoveryspace.eu). The communities are the places for exchange of ideas and best practices, collaboration and networking but at the same time the places where user generated content is being created and shared with peers. The communities created by the teachers are automatically related also with the School where these teachers are working to.

OSOS Training Academies: With the aim of supporting the effective engagement of teachers, headmasters and school communities (including parents), OSOS training academies provide the starting point for equipping them with the competences they need to act successfully as change agents in their settings. OSOS training academies will provide extended online materials, webinars and hangouts on a regular basis (both nationally and internationally) while delivering guidelines for the generation of creative training events and activities, such as face-to-face workshops, week-long courses at national or international level.

Self Reflection Tool: The Self Reflection Tool is offered to the participating school heads. It assesses the use level of the school openness of with an emphasis on the introduction of the RRI culture in six key areas: (i) leadership and vision, (ii) curriculum and use of external resources, (iii) open school culture, (iv) professional development, (v) parental engagement and (vi) resources and infrastructure. Based on the school's reference data, actionable analytics will be provided, allowing school heads to monitor the school development and the impact of the proposed innovation process.

School Development Plan: Participating schools are asked to cater for a holistic school development outline by using the provided School Development Plan template. The School Development Plan provides a robust base for automating and facilitating the task of periodic school self-assessment based on reliable criteria, such as development of innovative projects and initiatives, school external collaborations, teachers' professional development plans and school portfolios that may also include information on teacher-generated content, effective parental engagement strategies.

Educational Design and Authoring Tools: In order to help teachers to become developers of educational activities and scenarios a series of simple and more advanced authoring tools are available. The authoring tools are promoting the development of projects and they are adapting the inquiry learning cycle as a core pedagogical model, allowing always flexibility to the teacher to modify the sequence of the educational process. In order to facilitate the creation of high-quality teacher-generated content and scenarios, model templates capturing rather popular science education approaches, as well as cross-curricular scenarios and lesson plans, were developed as a source of inspiration for teachers. Each OSOS community member will be allowed to customize the sources and even the platform components that they used to create, search and curate content. An advanced authoring tool has been developed to facilitate the creation of the students' projects. The aim is to help them to become creators of educational activities which will reflect on the real educational needs of their classrooms as well as they are providing solutions to their local communities.