This policy brief encompasses the views and recommendations of experts from more than 12 EU-funded projects on innovative science education practices about the opportunities and challenges associated with open schooling in the European policy context. The group gathered in Brussels on 26 June 2023, in the framework of the policy event “Innovating European Education: Open Schooling as a Boost for Europe’s Skills”. The event was organised by two Horizon 2020 projects, Make it Open (MiO) and Schools as Living Labs (SALL), with the support of the OStogether network, and hosted by the European Commission.

Over the past two decades, educational expectations have surged. Previously, a school day of 4 to 6 hours focusing on core subjects like mathematics, reading, and basic science was sufficient. Yet, recent years have seen the addition of 21st-century skills and competencies like critical thinking, computer science, artificial intelligence, environmental studies, engineering, and maker education, to name a few. Nations worldwide grapple with integrating these subjects into the same traditional school day. The result is a “a mile wide and an inch deep curriculum.” But the challenge isn’t just about content overload; it’s about transforming how students learn. It’s not merely about increasing test performance but fostering profound comprehension. This dual challenge—introducing new subjects and promoting in-depth understanding—demands a radical educational overhaul. Simply put, there are not enough hours in the school day to address these challenges. We must extend learning beyond the school building and the school day, creating a learning continuum by making every space a learning space: homes, museums, community centers, parks, cars, trains and digital media.
Some of the components of this new ecosystem are already well-developed and well-funded. Schools have educational materials and professional development, museums have excellent exhibits, TV stations and educational websites do great work producing educational materials. But we do not have the “glue” that connects all these places and institutions. Open schooling, which lives at the intersection of schools, museums, communities, and afterschool spaces and uses various media and technologies has the capacity to become that missing connective tissue. Open schooling activities, being interdisciplinary and multi-spatial, are relatively new to the world of education, but they could provide the connection between learning and students’ communities and lives. Imagine a well-designed open schooling expedition that starts in schools, then moves to the home, then morphs into a research project in the community, culminating in a presentation at the local science museum - suddenly, the “learning day” far exceeds the 6-hour school day.

The European Year of Skills, 2023, aims to address skills gaps in the European Union and boost the EU skills strategy, which will help reskill people with the focus on digital and green technology skills. In this context, the concept and practices of open schooling bear promise for better aligning education with the needs, opportunities and challenges of today’s world. In this approach, open schools, in cooperation with other stakeholders, become agents of community well-being by creating new partnerships in their local communities. The core idea of the Open Schooling approach is to equip young people with citizenship skills in order to be able to participate fully in their communities and make informed choices throughout their life.

Regarding the system

The organisation of this new type of ecosystem that includes schools, museums, community centers, and digital media is a challenging task—it will require a coordinated, multi-year, multi-country effort on several fronts. After all, these multi-space, interdisciplinary open schooling expeditions are about more than just sending students to the field without a goal or direction. Open explorations demand a clear framework, pertinent questions, and appropriate resources. They need to be meticulously crafted, evaluated, and refined. While this is an arduous work, it paves the way for a transformative educational landscape. Yet, achieving this requires deliberate effort, strategic planning, and investment.

Efforts to introduce open schooling concepts and methods have shown that many teachers are willing to adapt, learn from one another, and engage with the new approach, embracing the learning opportunities, transforming their teaching methods and taking positive action. However, teachers’ positive attitude alone is not enough to achieve impact on education systems. The challenge is to make open schooling for all, ensuring widespread adoption through a systematic and holistic approach. Mainstreaming open schooling requires going beyond individual schools and projects, and working on multiple levels.

To achieve this, it is necessary to reconsider existing structures and regulations, encourage openness, experimentation and creativity, and generally provide ample opportunities and concrete incentives for systemic change which can empower school communities and enable them to excel. Open schooling initiatives should be given legitimacy and recognition, as well as time, resources, and space to evolve. The open schooling approach should be integrated into the curriculum and aligned with education standards, while also using it as a vehicle to innovate education.

Regarding learning

The ultimate goal is to increase students’ interest in science, improve their scientific literacy, and enhance their understanding of current global issues such as climate change, depletion of resources, struggling economies, and sustainability. Open schools should prepare students as 21st-century citizens by opening up science education, making it more relevant to everyday life and students’ aspirations, and empowering students to make responsible informed decisions and design a better future.
There is ample evidence demonstrating positive learning gains for students through open schooling initiatives which emphasise collaboration with stakeholders and real-life problem-solving for well-being and sustainability within their local communities. Especially the more open-ended approaches, which actively involve students from the conception and design of an open schooling activity up to its implementation and evaluation, seem to lead to better learning outcomes and enhance students’ civic engagement, self-efficacy and agency.

Regarding evaluation and research

Europe’s efforts for the promotion of science education through open schooling have predominantly focused on providing coordination and support, which has led to valuable community building, exchange and mutual learning among researchers and practitioners across Europe.

An important outcome of past projects has also been significant learnings about open schooling that have emerged through diverse evaluation and assessment approaches. At this point, more comprehensive research is needed to explore and integrate the insights gained from previous projects into a cohesive body of knowledge accessible and useful for policymakers, researchers and educators. It is essential to assess the its impact not only evaluating outcomes but also understanding the underlying factors that contribute to or hinder success. We need to understand the opportunities and challenges of open schooling in depth, as well as the nature and conditions of learning, teaching, assessing, and school reorganisation in the new educational paradigm.

**Policy Implications and Recommendations**

The experiences and results gained through the four generations of projects on open schooling that have taken place so far reveal the need for further work that will support European policies for innovating education in the context of the current and emerging challenges. Such work should include:

- Support for research that will inform evidence-based policies for promoting and scaling up open schooling at the systemic level.
- Further research to examine the impact of open schooling comprehensively, covering the effect both on learning and on schools and education systems.
- Create a framework for expansion of the European Community of Practice of Open Schooling, with concrete incentives for its growth to more sectors and more countries.
- Introduction of open schooling in vocational schools.
- Opportunities for organised presentation of results at the national and European level, such as *Guidelines, Practices, Tools and Examples* that were developed and tested, in order to inspire and guide (in-service and pre-service) teachers, researchers and policymakers.
- Provide opportunities for true synergy between all stakeholders, including educators, students, parents, local communities, researchers, entrepreneurs and industry, as well as creating effective interfaces with policymaking.
- Redefining the role of teachers beyond traditional classroom instruction and assessment, to make the profession more appealing to individuals who seek diverse and innovative teaching approaches.

**Expected Outcomes and Wider Impact**

After further work is carried out, the short-term impact will be the following:
- Local communities of open schooling will continue to flourish to support implementing open schooling approaches through mentoring and coaching new schools.
- Local communities of open schooling will become more diverse and engage more representatives of the different sectors.
- Exchange of knowledge between communities, on the national and European level, will reach more low-income areas.
- Research will show growth in innovative practices generated by and within school communities.
- Ministries of Education will embrace new approaches to classroom practice and align with the EU skills agenda to engage in apprenticeships and integrate schools and school students in a variety of community and business venues to introduce them to the relevance and contribution of STEAM studies to their daily lives now and in the future.
- Open schooling will become more visible to society and the public will be more informed on new directions in education (cf. a European Open Schooling Day / Week as a showcase)

In the medium and long-term, local authorities will adopt the approach and support schools to create frameworks for Lifelong Learning with and for their community, providing digital and physical space for sharing and collaborating. Ministries of Education will mainstream open schooling practices and support legitimacy within the curriculum standards. Europe will lead the globe in transitioning from a school-centric learning model to this omnipresent educational approach.

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