

A conversation on the pragmatics of open schooling: Reflections after two European projects¹

Giulia Tasquier and Alfredo Jornet

Question 1: Both of you have been involved and collaborated in two research projects, SEAS and FEDORA², where the idea of open schooling has been central. What does open schooling mean and where does it come from?

Alfredo (AJ): The term ‘open schooling’ has been used in different ways in different contexts. I guess one of the first things that you think of when you consider open schooling is a school that is accessible, easier to reach, for example, by otherwise excluded or minoritised students. In other contexts, I've seen the notion of open schooling as referring to those days when doors are open to families and others to get to know the school.

Our research is based on a definition given by the European Commission when they were seeking projects to innovate science education: namely, those pedagogical innovations in which schools collaborate with community actors outside the school for the wellbeing of the community. According to this, the object of schooling is of course the students’ learning, but is expanded to include having an impact outside the school, generating something that is also beneficial for the community.

In a way, this was not new, and similar ideas have been given different names. For example, we are now co-operating with the Reggio Emilia municipality on an idea called ‘widespread schooling’, which is very similar to open schooling. In every case, it is the notion of the school addressing the community in a way that goes beyond what traditionally has been the school's boundaries that defines open schooling. The meaning of open here has to do with the openness that comes with breaking barriers that previously separated the school from the society. In the context of climate change and sustainability – the focus of our work – open schooling is about providing students with opportunities for feeling and knowing that, at school, their learning actually matters.

Giulia (GT): A critical moment was the publication in 2015 of the report *Science Education for Responsible Citizenship*. The way in which the open schooling idea entered into the European context was through science, education, and innovation. This report emphasised the need to create and explore these ways of expanding science education beyond traditional school models. I think that some needs came from the schools, and some from science education, as encountered throughout this report. This was very innovative but also quite open and vague as a definition, because it was more like a promotion of a new concept in which the needs of science and of the school find a territory where they can meet and seek new ways to address the challenges of the 21st century.

SEAS was one of those projects that centred around open schooling, while FEDORA took inspiration from SEAS’ notion of open schooling, which contributed much in building together the three main pillars of the project – interdisciplinarity, future-oriented science education, and new languages. Open schooling was the way in which these three pillars developed.

The notion of open schooling is thus a work in progress. And that's the beauty of it.

Question 2: What did this notion mean for the articulation of the SEAS project?

AJ: The way we approached it was very pragmatic, very focused on thinking from the perspective of teachers, educators, school leaders and students: what are the barriers, the challenges that they will confront when they actually take up this concept and try to translate it into actual practices? For much of the pedagogical ideas in the research literature do not translate into real practices. So, when we look at how schools function today, it's taking much longer for institutions to catch up with these innovative ideas that come from research. The challenge for SEAS was to both stimulate the

schools to take up this challenge and document how new barriers and opportunities emerged at different levels.

The first level focused on how schools managed the collaboration with actors outside its boundaries as an institution. In SEAS, schools worked with activist organisations, municipalities, enterprises and science centres, and we have documented how schools and partners transform to be able to collaborate with each other in ways that can be sustained over time and be meaningful for everyone.

At a second level, open schooling also challenges how we think about learning itself. What are the pedagogical challenges and opportunities? What are the pedagogical identities, such as when, suddenly, an activist organisation is taking up a pedagogical role because they are engaging with students directly in their process of learning, and how this educational responsibility is distributed and on what terms? Here, the disciplinary boundaries are also challenged. Because when you are addressing a particular ecological or sustainable challenge, such as the water quality in a river in your community, the social and the scientific merge. The third level we were focusing on was within the school institution: how you manage an institution that is open, and how you manage the relationships between leadership and teachers, teachers and other teachers.

GT: It is also important to refer to a model used within SEAS, and which we also adopted in FEDORA: the heuristic model of the three spheres of transformation, created in 2013 by O'Brien and Sygna. This is a model for understanding the changing relationships between individual, collective and political agency as we work in open schooling innovations. According to this model, transformation concerns three different but interconnected spheres. The practical sphere includes technical and behavioural change; the political sphere highlights the systems and structures that facilitate, or sometimes impede, the transformation; and the personal sphere, which is the most cultural one, highlights the importance of the individual and collective worldviews, values and beliefs and those of paradigms that drive people's motivations and trigger practical and political actions. It is the dynamic interrelation among the three that nurtures the change.

Question 3: How does open schooling challenge the teachers' traditional role, in your opinion?

AJ: Open schooling is a new practice and, like any other social practice, is established through particular cultural tools connected to the profession. Teaching in general is connected to some habits of mind, concepts that are key to the teaching profession, vocabulary, all the things that articulate what being a teacher means in a particular sociocultural context.

Open schooling is transforming what the classroom looks like and, therefore, to actually change your practice, you need to modify those tools, habits, vocabulary, concepts that articulate what being a teacher means. Through SEAS, we tested and developed tools and methods to support teachers and school leaders in this transition, including tools to outline teaching plans connected to local challenges, insights on how to carry out enquiry-based activities and also how issues of sustainability should be addressed so as to not lose sight of the social, political, technical and scientific dimensions³.

GT: In both SEAS and FEDORA, we use a term borrowed from Peter Galison, the *trading space*, to refer to a space where teachers and researchers are invited to inhabit an interdisciplinary context by exchanging, at first, aims and values, but also acknowledging the practices, methods of their disciplines and their experience. In open schooling, teachers have the opportunity to both shed light on the disciplinary foundations and on the identities of the disciplines, as disciplinary teachers, and also to regenerate the subject matter to make subjects like climate change, artificial intelligence, quantum technology and sustainability more relevant from a personal point of view. So, this way of collaborating between teachers to create new forms of participation in the classroom, and also of offering a new way of perceiving teachers in a new role, is essential. The *trading zone* is one of deep relational character, where encounters take place between the disciplines and the teaching languages, practices and methods, redefining the relations among teachers themselves, between teachers and students, between teachers and school leaders, and the relationships with the rest of the community.

References

- 1 This is a revised version of a podcast interview originally published in *Lenses for tomorrow*, the official podcast of the European project FEDORA, led by Prof. Olivia Levrini. See: www.fedora-project.eu/podcast/lenses-for-tomorrow-fifth-episode/?fbclid=IwAROKSrNBoYAJRSUjohNKHqLXsUdkMPx90uaTAYbtMUvPzmcws5WHWDSbplk
- 2 See more about SEAS (Science Education for Action and Engagement towards Sustainability) at: www.seas.uio.no, and FEDORA (Future-oriented Science Education to enhance Responsibility and Engagement in the society of acceleration and uncertainty) at: www.fedora-project.eu
- 3 The tools and methods are archived in the SEAS pages (www.seas.uio.no) and in the Acedu repository, here: <https://aceduintdev.azurewebsites.net>

Giulia Tasquier is Senior Assistant Professor at the Department of Physics and Astronomy "Augusto Righi," University of Bologna (Italy).

Alfredo Jornet is Ramón y Cajal Researcher at the University of Girona (Spain).