



The CrowdSchool Project

The mass digitization process in the field of Cultural Heritage has made available online a huge number of digital contents from European galleries, libraries, archives and museums (GLAMs). Though, the educational use of the digital collections is often limited, due to the lack of awareness about the availability of this resource and the lack of tools answering the specific needs of the schools.

CrowdSchool Project relies on the results obtained by a previous project, which created the platform named “*CrowdHeritage*” and tested dedicated activities for schools. CrowdSchool aims to propose a new model co designed for schools by teachers/professors and professionals from digital cultural heritage for:

- Enhancing schools with new interactive methods for increasing the creative thinking skills of students, taking benefit of the potential present in the digital repositories of cultural institutions.
- Creating an innovative tool for applying *STEAM Education (Science, Technology, Engineering, Arts and Mathematics)* as an access point for guiding students’ inquiry, dialogue and critical thinking.

The CrowdSchool Project has implemented the proposed methodology both in primary schools and in secondary schools. Students’ experience with the CrowdSchool Project and CrowdHeritage platform has been different, according to their age. Indeed, the students interacted and used the digital tools of the platform based on their age-appropriate skills. Consequently, the teachers have prepared appropriate lessons and learning objectives according to the age groups. You can go in depth with its objectives and results, visiting its website: www.crowdschool.eu.

The Recommendations

The Recommendations issued by the CrowdSchool project, present the key policy themes that emerged by the discussions within the community of experts and stakeholders involved in activities, as well as within the seminars and workshops organised during the project lifetime. It is crucial that the Project’s conclusions and findings are streamlined into concrete policy recommendations that could be reflected in the actions of policymakers, education institutions, and academic staff on an individual level: <https://www.crowdschool.eu/outcomes>

As such, these recommendations contribute to putting emphasis on the need for systematic and ongoing professional development of teachers, strategic support for their pedagogical, curriculum design, and transversal skills training, and on the recognition of the importance of the *4Cs of the 21st century (critical and creative thinking skills, communication, cooperation)* and inclusiveness in Europe.

The *4Cs of the 21st Century*, particularly critical and creative thinking skills, are important for university, career, social and private life, to face the enormous challenges of our times such as climate change or social injustice, to build more inclusive and sustainable communities, to leave them to chance: they must be taught explicitly, they do not develop on their own. CrowdSchool proved very effective for students with learning disabilities and attention deficit disorder, who usually find it very difficult to deal with the use of language and traditional teaching tools.

The policy recommendations address three different levels:

- European policymakers.
- National educational policy makers and school directors.
- Individual teachers.

The documents include a range of practical recommendations that may contribute to:

- The enhancement of the 4Cs skills in Europe.
- New interactive methods for increasing the 4Cs skills in Europe.
- Creating an innovative tool for applying *STEAM Education (Science, Technology, Engineering, Arts and Mathematics)* for guiding students’ inquiry, dialogue, and critical thinking.

Key outcomes obtained by CrowdSchool:

- Designing training materials to the purposes of targeted educational communities, using digital culture heritage to respond to their specific training objectives
- Acquiring Key Competences, such as: Learn how to read an image; Support students in expressing themselves orally and in writing to describe, explain and argue; Enrich the lexicon and learn how to use it appropriately; Acquire the ability to cooperate; Acquire the ability to participate in a project; Develop the ability to use digital technologies to conduct research or produce content independently; Promoting co-creation and collaboration of teachers/children with cultural heritage organisations; Increasing awareness of the European teachers' community on the relevance of creative and critical thinking capacity, using an interdisciplinary approach combining science and humanities.

Recommendations for EU-level policy makers:

- Increase the EU financial support to projects focusing on the cross sectorial cooperation between educational, technological and cultural organisations.
- Incorporate the 4Cs of the 21st Century skills into primary and secondary school curriculum so that they are taught.
- Primary and secondary school teachers need professional development, administrative support, and technology for teaching the 4Cs of the 21st Century skills.
- Primary and secondary education institutions shall incorporate the 4Cs skills in institutional learning outcomes and provide training for academic staff to encourage teaching of the 4Cs skills.
- To ensure coherent and consistent implementation of education for the 4Cs skills, stronger alignment is needed between primary, secondary education and employer stakeholders.

Recommendations for teachers:

- Teach your students what good critical thinking looks like in terms of desirable behaviours and useful strategies for solving problems.
- Offer your students opportunities to practice their critical-thinking skills with instructor support and to receive feedback on their performance.
- Foster an inclusive, intercultural mindset.
- Plan your courses.
- Get to know your students.
- Get useful feedback from students - student evaluation of teaching.
- Improve your digital skills.

Recommendations for policy makers at national level and/or School directors:

- Adopt a strategic approach to the use of cultural digital collections to increase critical thinking capacities of the students.
- The 4Cs of the 21st Century skills must be taught explicitly; they do not develop on their own.
- Design and implement clear, inclusive and targeted critical thinking strategies.
- Provide preparatory training for your academic staff on the opportunity and benefit pedagogical use of digital cultural heritage at school
- Promote cooperation toward professors with strategic partner institutions (such as museums, research centres, etc.).
- Encourage cross curricular activities.
- Encourage teachers to make use of innovative and inclusive digital solutions.
- Promote an inclusive outreach and engagement strategy to academic staff and inclusive teaching and learning environment.