CREATIONS: Promoting STEAM to Engage Science Classrooms

Theoretical framework: The CREATIONS scheme, a three-year European supported-action research project with 16 partner institutions, involves science teachers and classroom students in inquiry-based initiatives by linking science with art (from STEM to STEAM). The framework combines schools and research infrastructures with the intent to spark young people’s interest in science by using different channels. It centres upon effective community-building between researchers, teachers and students and empowering the latter to use, share and exploit the collective power of unique scientific resources (research facilities, scientific instruments, advanced ICT tools, simulation and visualization applications).

Design/Methodology: Consequently, the strengths of formal schemes (educational field trips, virtual visits, school based master-classes) and informal (games and student generated apps, hangouts, related artworks like science theatre or student generated exhibits, junior science cafes) are harvested to promote creative inquiry-based learning and appreciate science works.

Results & Discussion. The 16-partners project started working in October 2015. Therefore, of course, just preliminary results exist within the frame of Art@CMS with its intent to translate high energy physics at CERN (a partner of CREATIONS) by using art as tool. Science&Art@School portrays an education and outreach initiative of the CMS experiment at CERN that seeks to act as an inspiring springboard for engaging the youth in particular in the excitement of scientific research. It thus aims to promote a long-lasting dialogue between the scientific community, the art world and educational communities for a greater appreciation and understanding of particle physics research and its contribution to education and society. An effective integration of science education with infrastructures supports monitored-for-impact innovative activities in supporting feedback for the take-up of such interventions at large scale. A roadmap assures guidelines for implementation of innovative educational and outreach activities that could act as a reference in both, scientific research outreach and science education.

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