KA220-SCH - COOPERATION PARTNERSHIPS IN SCHOOL EDUCATION
EDUCATIONAL VENTURE
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Guide to the Creation of the QR-Powered Territorial Creative Map: Educational Ventures Project

1. Strategic Vision and Project Fundamentals

The "Educational Ventures" project (2024-2026) represents a methodological evolution of the cooperative learning model, redefining the boundary between physical and digital space. The initiative aims to overcome face-to-face teaching through the adoption of **outdoor learning** , integrating immersive technologies such as Virtual Reality (VR) and Augmented Reality (AR) to encourage a dynamic rediscovery of cultural and environmental heritage. In this perspective, technology is not a simple tinsel, but a *pedagogical scaffolding* that allows students to investigate the territory, transforming historical and natural sites into experiential laboratories where knowledge is actively built through interaction with the environment. The core objectives of the project aim at the development of an ecosystem of integrated skills for students aged 14 to 18:

- **Soft Skills:** Enhancement of critical thinking, empathy and social skills through team-working.
- **Digital Skills:** Mastery of e-learning platforms and advanced interactions with AR/VR technologies.
- **Civic Competences:** Development of an active and responsible citizenship, oriented towards the protection and enhancement of the common good.
- **Appropriation of Knowledge:** Transition from a passive reception of notions to a constructivist *learning model* .**So What? (The Impact):** This approach radically transforms the school experience. By shifting the center of gravity of learning outside and equipping the student with tools for immersive exploration, a strong intrinsic motivation is triggered. The learner does not limit himself to studying the territory, but "takes possession of it", developing a sense of belonging that consolidates the link between the school community and the local fabric. This theoretical vision finds its practical implementation in the design of the "Districts of Creativity", where the physicality of the place guides the hierarchy of digital information.

2. Identification of Places and Districts of Creativity

The "Creativity District" is not a mere geographical delimitation, but a spatial architecture of information. The selection of sites (parks, libraries, archaeological areas) by the partners in Italy, Poland, Turkey and the Czech Republic constitutes an act of cultural re-appropriation. In this context, places are not just logistical destinations, but nodes of a transnational network of knowledge that allows different historical and environmental narratives to be compared. Site selection responds to a matrix of rigorous criteria necessary to ensure the scalability and security of the educational model:

| Selection Criteria | Operational Description & AI || ------ | ------ || **Relevance** | Intrinsic value (historical, cultural, environmental) and narrative potential of the site. || **Accessibility** | Absence of architectural barriers and ease of access for the flows of class groups. || **Security** | Suitability of the site for prolonged outdoor educational activities in group contexts. || **Access Permissions** | Legal feasibility check for shooting, mapping and marker placement activities. |

A fundamental case study is the **Centocelle district in Rome** , where the integration between history and AR reaches its maximum depth. Landmarks such as the **Catacombs of St. Marcellinus and Peter** and the

Mausoleum of St. Helena (mother of Constantine) serve as physical anchors for the digital experience. Here, AR allows the virtual reconstruction of lost or ruined elements, such as narrative references to the Arc de Triomphe celebrating the emperor, allowing students to visualize the "vibrant past" of the site directly in the field. Once the physical component has been defined, the structure of the places dictates the specifications for *marker-based interaction* via QR Code.

3. Technological Architecture: QR Code and Augmented Reality (AR) Integration

The technological infrastructure is conceived as a bridge that enables the *User Flow* from the physical space to the digital platform. The QR Code acts as the main gateway: its scanning activates a smooth transition between the tactile observation of the environment and the immersive in-depth analysis offered by the AR App and the e-learning platform. The consortium distributed technical responsibilities to ensure a robust and consistent architecture:

- **Liceo Scientifico Francesco D'Assisi (IT):** General coordinator and head of pedagogical monitoring.
- **WIDE Srl (IT):** Development of the e-learning platform, creation of QR codes and overall quality management.
- **NARA (CZ):** Technological partner for the development of the AR App, responsible for 3D modeling and integration of immersive content.
- **CRAS (PL) and CAIO (TR):** Strategic partners for the development of local content and the validation of teaching models in their respective territories. A critical element of the technological architecture concerns the maintenance of the quality of the content: during development, the technical decision was made to remove the monument " **Temple** " from the AR content due to critical issues related to the availability and qualitative performance of the models, demonstrating constant monitoring aimed at reducing unnecessary cognitive load. **So What? (The Connection):** The use of QR Codes customized by country, even within a single architecture, ensures transnational consistency. A student in Turkey or Poland, by framing a marker in his or her own district, accesses an information structure identical to that of his or her peer in Rome, fostering a sense of shared European identity mediated by technology.

4. Structure of Information Content and Practical Stimuli

For the experience to be effective, it is necessary that the information architecture follows an action-oriented *content schema*. Digital content must not be merely encyclopedic, but must act as a stimulus to transform the student from a spectator to an active participant in territorial redevelopment. The training "backbone" consists of **5 specific e-learning modules**, which provide the theoretical basis before the outdoor activity:

1. **Soft Skills for the 21st Century** (Curato da CAIO).
2. **Digital Skills and Immersive Technologies** (Curato da NARA).
3. **Competences of Active and Responsible Citizenship** (Curato da Liceo Francesco D'Assisi).

4. **Sustainability, Territory and Outdoor Learning** (Curato da CRAS).
5. **Meta-competences and Use of the RAS** (Edited by WIDE). Each QR Code on the map activates a four-pillar structure:
6. **Description of the Place:** Historical and cultural synthesis with high visual impact.
7. **Suggested Activities:** Practical tasks and collaborative challenges to apply the skills acquired in the modules.
8. **Redevelopment hypothesis:** Prospective vision of the site according to the Educational Ventures model, stimulating proposals for improvement.
9. **Connection Signals:** Hypertext and narrative links with similar sites in Partner Countries (Italy, Poland, Turkey, Czech Republic).**So What? (Active Citizenship):** This information hierarchy educates the student to observe the territory not as a static find, but as a living and transformable reality. The integration of transnational content allows us to understand that the challenges of redevelopment and protection are common to all European citizens, promoting a global civic awareness.

5. Guidelines for the Experimentation and Replicability of the Model

The validation of the Educational Ventures model is based on a solid test phase involving **142 students and 12 teachers** (exceeding the initial target of 120/8). Feedback gathered from focus groups is essential for *fine-tuning* user experience and instructional depth. To ensure model replicability, partners must adhere to the following operating protocol:

Partner Validation Checklist

- **Linguistic Verification:** Validation of the contents in all 5 languages of the project (English, Italian, Polish, Turkish, Czech).
- **AR Usability Check:** Check that texts are rendered in **bold** or legible colors (preferring **green** or light tones) and avoiding red, as per NARA accessibility standards.
- **Integrity of the Monuments Catalog:** Verification of the removal of non-compliant assets (e.g. "Temple" monument) to preserve the fluidity of the app.
- **Erasmus+ Monitoring:** Systematic recording of activities and participation flows through the European Commission's management tool.
- **Pedagogical Validation:** Administration of pre- and post-activity questionnaires to measure the increase in digital and civic skills.**So What? (Sustainability):** Sharing the results with families, local institutions and decision-makers is the prerequisite for the sustainability of the project beyond 2026. Involving stakeholders means transforming the creative map from a school experiment to a permanent tool for urban regeneration and tourist-cultural promotion. This path is not just a technical guide, but an invitation to explore and celebrate the vibrant fabric of the territories

involved, combining the thread of history with digital innovation to design the future of local communities.