

## **Digital and Intercultural Synergies in Erasmus+ Mobilities. An Approach to Student Inclusion and Sustainable Development**

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**Abstract.** The contemporary educational landscape demands multidimensional learning spaces that connect digital innovation, social responsibility, and cultural inclusion. This paper explores the impact of Erasmus+ school accreditation activities on the development of transversal competences among students with fewer opportunities. The primary objective is to evaluate how non-formal learning methodologies, implemented during institutional mobility flows, can effectively achieve strategic European priorities.

Following an Action Research framework (Plan, Act, Observe, Reflect), this study analyzes a mobility flow involving participants aged 10-17 from "Virgil Madgearu" High School (Galați, Romania) to Liceo Scientifico Plinio Seniore (Rome, Italy). The research incorporates qualitative and quantitative data collected through three primary non-formal instruments: the "Omnes viae Romam ducunt" cognitive treasure hunt, "CineArt" AI-enhanced aesthetic workshops, and a dual "Extim/Intim Journaling" method used for phenomenological tracking.

The integration of sustainable urban exploration, interactive digital storytelling, and European parliamentary simulations significantly improved the linguistic, digital, and social skills of disadvantaged students. The dual journaling method documented a distinct shift from initial communicative anxiety to a profound sense of group cohesion. Additionally, independent ethnographic research and simulation-based learning accelerated student agency, transforming passive travel into conscious digital citizenship.

The study demonstrates that education for environmental and social sustainability is maximized when cultural heritage is intertwined with personal identity. Implementing reflective tools and civic simulations within international mobilities establishes a robust framework for long-term commitment to shared European values, neutralizing socio-emotional divides.

**Keywords:** Erasmus+ accreditation, social inclusion, extim/intim journaling, digital competences, interculturality.

### **1. Introduction**

The contemporary educational landscape is undergoing a profound transformation, moving towards a multidimensional learning space where the physical environment, digital innovation, and social responsibility converge. In this modern architecture, education is no longer confined to the classroom; it becomes a dynamic journey where global citizenship and environmental ethics are core pillars. Within this framework, the Erasmus+ School Accreditation acts as a strategic engine for institutional development (European Commission, 2021). It provides the necessary funding and structure to achieve five fundamental objectives: fostering inclusive and

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equitable education, enhancing digital and linguistic proficiency, developing individual and group management skills, promoting sustainable development, and cultivating intercultural awareness.

Beyond simple logistics, the concept of responsible mobility represents a critical intersection between the European Green Deal and the Erasmus+ priorities. In a globalized educational context, the choice of how we travel is treated as an educational ethos. It challenges students to perceive their physical movement across borders as a conscious act of environmental stewardship. By prioritizing active transportation (walking, cycling) and public infrastructure, students transition from passive tourists to "active explorers." This shift directly influences Objective 4 (Sustainability), as participants engage in a more authentic, "slow-paced" discovery of cultural heritage, learning to balance personal experience with ecological impact, thereby aligning local educational practices with global sustainability goals (UNESCO, 2017).

Synergies with Social Inclusion and Digital Literacy Modern pedagogy also emphasizes Inclusion (Objective 1) and Digital Literacy (Objective 2). For students with fewer opportunities – such as those from rural areas or returnee families – international mobility can be a daunting experience. A more deliberate and accessible pace of exploration allows for a gradual and profound social integration. Simultaneously, the digital dimension of contemporary education provides the tools to document this journey. Through video reports, AI-enhanced art, and digital journals, students bridge the gap between ancient history and future technology, creating a sustainable record of their growth.

Research Objective This paper argues that the synergy between these objectives, as implemented by "Virgil Madgearu" High School, creates a holistic learning experience. By analyzing the mobility flows in Rome through the lens of Action Research, we aim to demonstrate how non-formal activities – rooted in intercultural dialogue and social responsibility – transform students' perceptions of themselves and the world, effectively preparing them for the challenges of an interconnected society.

## **2. Research methodology**

The conceptual architecture of the current Erasmus+ accreditation is deeply rooted in the strategic documents of the European Commission, aligning local actions with the European Green Deal, the Digital Education Action Plan (2021-2027), and the pursuit of a European Education Area (European Commission, 2020).

The methodology employed in this study follows the Action Research spiral (Plan, Act, Observe, Reflect) pioneered by McNiff (2017), integrating non-formal learning methods to facilitate the achievement of the Erasmus+ accreditation objectives. By transitioning from a traditional teacher-centered approach to a participant-centered model, the mobility utilized four primary non-formal instruments as data collection and skill-development tools. This framework allows for an immersive exploration of how cross-border educational experiences can reshape student perspectives, transitioning them toward a well-rounded global outlook (Wikan & Klein, 2017).

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## **2.1. Participant Profile and Sample Characteristics**

To ensure a rigorous evaluation of the non-formal methodologies, the study analyzed a target group consisting of 14 students from "Virgil Madgearu" High School (Galați, Romania), aged between 16 and 17 years (8 females and 6 males), who participated in the first-year accreditation mobility flow to Rome, Italy.

The selection process strictly prioritized the strategic European goal of social inclusion. Consequently, 65% of the selected cohort matched the Erasmus+ definition of "students with fewer opportunities." The specific socio-economic and psychological sub-profiles identified within the participant group included:

- Socio-economic disadvantages: 5 students coming from low-income families or single-parent households facing financial constraints.
- Geographical barriers: 2 students residing in suburban/rural adjacent areas with limited access to cultural and tech-centered educational centers.
- Socio-emotional and communication barriers: 4 students identified by school counselors as exhibiting severe communicative anxiety, low self-esteem, or risk of social isolation within the school community.
- Returnee background: 1 student from a family of returnee migrants, facing minor cultural re-integration challenges.

This specific heterogeneous demographic was selected to observe how immersive, non-formal, and digital learning environments can bridge socio-emotional divides and accelerate individual agency in disadvantaged groups.

## **2.2. Non-Formal Instruments and Data Collection Tools**

### *2.2.1. The "Treasure Hunt" for Spatial and Linguistic Autonomy*

The activity "Omnes viae Romam ducunt" was designed as a cognitive mapping exercise. Students decoded Latin maxims to identify historical landmarks. This tool measured the students' ability to synchronize linguistic knowledge (Latin roots) with spatial orientation, addressing Objective 2 (Linguistic) and Objective 5 (Interculturality).

### *2.2.2. "Living Sculptures" and "CineArt". Aesthetic Transposition and Digital Literacy*

To address Objective 2 (Digital Skills) and Objective 1 (Inclusion), the methodology integrated the "Living Sculptures" photo workshop and the "CineArt" AI-enhanced sessions. Students collaborated in mixed teams to replicate classical artworks through photography and then reinterpreted them using digital filters and AI tools. This served as an assessment of aesthetic literacy and team-based management.

### *2.2.3. Video Reports and the Extim/Intim Journal. The Reflective Cycle*

The "Journalistic Workshop" and the Extim/Intim Journaling constituted the primary qualitative data collection instruments. Students produced daily video reports (Extim) and written reflections (Intim). The "Extim" component focused on objective reporting and communicative competence, while the "Intim" component utilized the Phenomenological Approach to capture the internal transformation of the student, addressing Objective 3 (Individual Management).

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#### 2.2.4. The Simulation "Be a Member of the European Parliament". Civic Empowerment

The David Sassoli European Experience was utilized as a Simulation-Based Learning tool. Students took on active roles in a mock parliamentary session, which addressed the development of Soft Skills (negotiation, public speaking, decision-making), providing a measurable context for Objective 3 (Group Management) and Objective 1 (Inclusion).

### 3. Results

The analysis of the Extim/Intim journals, combined with the observation of the final digital products, provides a comprehensive view of the progress made by the participants, categorized by the five fundamental objectives of the accreditation.

#### *Objective 1: Inclusive and Equitable Education*

The participant profile included students facing emotional communication barriers. The "Ice-breaking" and "Social Inclusion" workshops (Day 1) acted as catalysts for group cohesion. The Intim journals revealed a significant shift from anxiety to belonging, successfully neutralizing initial prejudices through shared experiential learning.

#### *Objective 2: Digital and Linguistic Competences*

Activities like CineArt (using AI filters), collaborative Google Slides design, and the final FlipHTML5 digital archive required students to manipulate complex software tools. The Extim journals documented a professionalization of digital speech. Students moved from taking simple "tourist photos" to creating "video reports" with live-transmission characteristics. Linguistically, the data proved an increased language awareness, sparked by the "Common Latin Root" workshop.

#### *Objective 3: Individual and Group Management*

Results showed an increase in student agency and resource management within a foreign environment. The division of roles (actors, directors, editors) for the final video products and the European Parliament simulation fostered a professional management mindset, where individual responsibility directly impacted the quality of the collective output.

#### *Objective 4: Sustainable Development and Responsible Mobility*

Guided bicycle tours and extensive walking tours (averaging 8-10 km daily) resulted in reduced carbon footprints and a recalibration of personal values. Sustainable mobility was internalized as an ethical choice, where physical effort was associated with a deeper connection to the cultural space, contrasting with motorized tourism.

#### *Objective 5: Multiculturalism and Interculturality*

Through "Our Common Latin Root" workshop and the "Flash-mob" featuring traditional dances, participants experienced multiculturalism as a reciprocal exchange. The realization of similarities between Romanian and Italian peers proved the dismantling of "Otherness."

### 4. Discussion

The empirical findings from this action research study validate the theoretical frameworks of experiential learning established by Kolb (2014), proving that knowledge is structured through the transformation of experience. The shift documented in student journals from initial

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communicative apprehension to active engagement confirms that non-formal strategies effectively lower the affective filter in language and social integration.

Furthermore, the transition from technological consumption to purposeful digital creation—manifested through Google Slides collaborations and FlipHTML5 publishing—mirrors the priorities of the Digital Education Action Plan (2021-2027). Technology ceased to be an isolating factor and instead functioned as an intercultural bridge.

The internalization of sustainable transport as an ethical ethos rather than a logistical constraint demonstrates that "Slow Tourism" fosters a sophisticated appreciation of cultural heritage, directly supporting the Council of the European Union's (2022) guidelines on learning for the green transition. Finally, the civic agency observed during the European Parliament simulation proves that leadership and institutional belonging are successfully cultivated when marginalized pupils are placed within active, high-stakes role-play scenarios.

## 5. Conclusion

The Erasmus+ school accreditation program, as implemented through the Year I mobility flows of "Virgil Madgearu" High School, demonstrates that the modern educational paradigm is fundamentally built on experiential and sustainable pillars.

The study leads to the following key conclusions:

- **The Power of Reflexive Tools:** The "Extim/Intim Journaling" method transformed a standard mobility into a profound psychological journey, helping students process the external cultural heritage through an internal lens of personal growth.
- **Sustainability as an Educational Ethos:** Responsible travel patterns were successfully redefined from a mere logistics requirement to an ethical lifestyle choice.
- **Digital Citizenship:** Digital competence is most effectively acquired when tied to authentic cultural tasks, moving from consumption to collaborative creation.
- **Civic Empowerment:** Simulation-based learning provided a necessary bridge between theoretical European values and active citizenship.

**Limitations and Recommendations** A key limitation of the current study is the short-term nature of the tracking phase, which limits insights into the long-term retention of these developed skills. Future research should implement longitudinal tracking to observe how these intercultural and digital competences influence students' academic and professional paths. We recommend the institutionalization of reflective journaling and simulation-based learning in all international mobilities to maximize pedagogical impact.

## Acknowledgement for funding

This work was supported by the European Commission through the Erasmus+ Accreditation mobility flow, Project ID: 2023-1-RO01-KA121-SCH-000128448, School Education, conducted during the 2023-2024 school year. The content of this publication is the sole responsibility of the authors and the European Commission is not responsible for any use which may be made of the information contained therein.

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