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Artskills
FOR EMPOWERMENT AND INCLUSION

Co-funded by the European Union

Artistic Exploration for the Development of Soft and Digital Skills
Project Code: 2024-1-IT02-KA220-ADU-000245461

Report on the Impact of Art on the Development of Social and Digital Skills in Adults

(Local Report – Italy)

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1 Introduction

The *ARTSKILLS* project (Artistic Exploration for Development of Soft and Digital Skills) is an initiative funded by the *Erasmus+* programme, under the action *KA220-ADU – Cooperation Partnerships in Adult Education*. It stems from the need to provide adults with innovative tools to develop transversal and digital skills, using artistic and cultural heritage as an educational lever.

In a context where digitalization is transforming the world of work and social inclusion represents an increasing challenge, *ARTSKILLS* proposes an integrated approach that combines critical analysis of artworks with the use of digital technologies. This model aims to enhance key skills such as creativity, communication, empathy, and digital autonomy, within a framework of lifelong and inclusive learning.

The project aims to develop innovative educational modules that combine art and technology, and, to ensure the effectiveness of these tools, it was deemed essential to thoroughly investigate the impact of art on learning and skills development. The objective of this report is, therefore, to analyze how interaction with artistic and cultural heritage can foster the strengthening of soft skills and digital competencies, contributing to more accessible and effective training for the adult population.

The improvement of transversal and digital skills in adults is closely linked to the concept of *lifelong learning*, understood as a continuous process of acquiring knowledge and skills throughout life. This approach is crucial not only for promoting employability and adaptability to change but also for fostering social inclusion, reducing educational inequalities, and strengthening active citizenship.

1.1 Structure of the Report and Case Studies Analyzed

The report is structured into several sections that explore:

- The national Italian framework on adult skill levels, active educational policies, and the role of art in lifelong learning.
- The impact of art on adults' social skills, through studies and best practices showing how artistic experience promotes the development of soft skills such as empathy, effective communication, and collaboration.
- The link between art and digital skills, with examples of digital environments for heritage education and inclusive practices that leverage technology to facilitate access to art.
- Innovative methodological approaches, such as the STEAM model and the use of digital platforms to make artistic learning more participatory and accessible.

To complement the theoretical pathway, the report includes two case studies:

1. **The case of UNITRE in Fondi**, a University of the Third Age that represents a virtuous example of non-formal education. Through artistic, cultural, and creative activities, this initiative has fostered the development of social and digital skills in adults, promoting active participation and personal well-being.
2. **The case of educational services in museums**, analyzed through the study "Educational Services in Museums: Standards and Evaluation" by Intraversato and Scippo. This analysis provides an opportunity to reflect on the methodologies for evaluating museum educational activities and the need to develop rigorous quality standards.

The two cases were selected for their complementarity: on one hand, a practice of non-formal education deeply rooted in the social fabric; on the other, an example of rigorous methodological reflection on the educational impact in museum contexts. Both offer valuable insights into how art can become a tool for cultural, social, and digital empowerment.

2 Overview of the National Context

This chapter aims to provide a broad and structured overview of the policies, structures, and educational practices currently present in Italy, with particular attention to the formative value of art and culture in the personal and professional development of adults. The discussion begins with an analysis of OECD-PIAAC data on the fundamental skills of the adult population in Italy, followed by an in-depth examination of the main national policies in the fields of formal and non-formal education, available economic supports, and the contribution of European programs. It then explores the role of art and cultural heritage as tools for lifelong learning and concludes with examples of best practices and educational projects centered on artistic exploration. This analysis seeks to offer a critical and documented perspective on the opportunities and challenges within the Italian system, while also highlighting the most promising experiences that integrate art, education, and inclusion within the framework of lifelong learning.

2.1 Adult Skills Levels in Italy: OECD-PIAAC Data

The international Survey of Adult Skills (2023), conducted by the OECD as part of the PIAAC programme and published online in the country note dedicated to Italy[1], provides a detailed picture of adults' capabilities in literacy, numeracy, and adaptive problem-solving—essential elements for active participation in today's society and economy. These competencies form the foundation for lifelong learning and innovation, enabling individuals to face contemporary complexity and to contribute to more informed decision-making processes. Italy participated in the Survey of Adult Skills during both the 2011–12 and 2022–23 cycles. The study, conducted on a sample of adults aged 16 to 65 across 31 countries, allows for monitoring the evolution of adult skills over time, identifying challenges in their development and use, and defining strategies to address them.

In Italy, adults recorded an average score of 245 in literacy, 244 in numeracy, and 231 in adaptive problem solving—scores lower than the OECD average. Specifically, 35% of Italian adults scored at or below Level 1 in literacy (compared to 26% OECD average). These individuals are able to understand short, structured texts but struggle with more complex information. Only 5% achieved the highest levels (4 or 5), compared to 12% across OECD countries (Fig. 1a,b).

In numeracy, 35% of Italian adults scored at Level 1 or below, compared to 25% in the OECD average. This group is capable of performing basic operations with whole numbers or money but struggles with more complex problems. Adults at the highest levels represent just 6% in Italy, compared to 14% in the OECD average (Fig. 1a,b).

Regarding adaptive problem solving, 46% of Italian adults scored no higher than Level 1, compared to 29% OECD average. Individuals with this score are able to solve simple problems involving few variables but encounter difficulties in more dynamic situations. Only 1% of Italians reached Level 4, whereas the OECD average stands at 5%. Considering all three assessed areas, 26% of Italian adults scored at or below Level 1, compared to 18% across OECD countries (Fig. 1a,b).

Analyzing the evolution of skills over the past decade, average results in literacy and numeracy remained stable between the 2011–12 and 2022–23 cycles.

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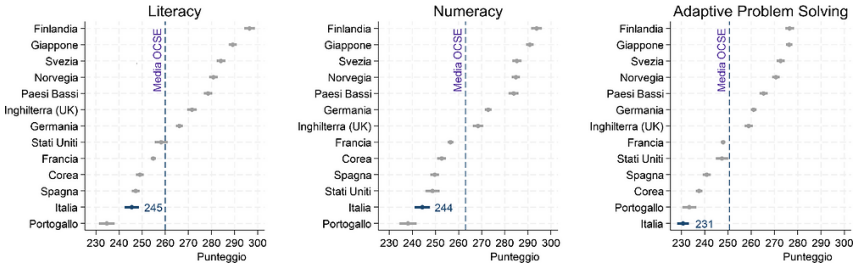
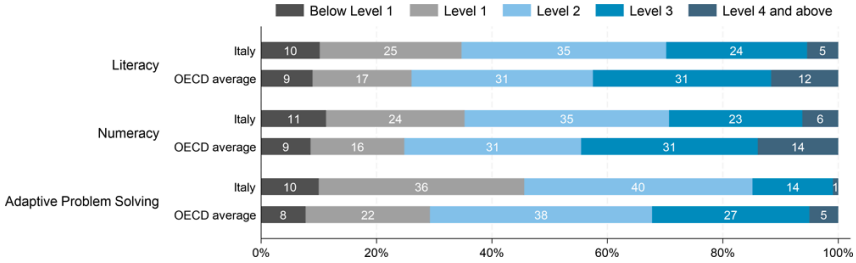
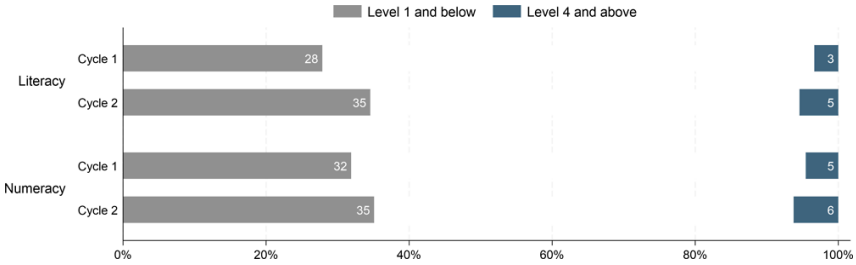


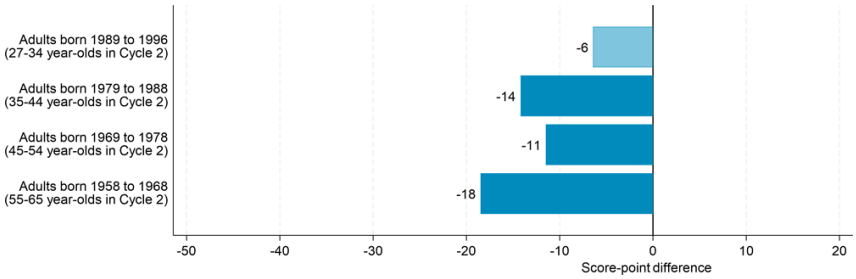
a) Mean performance in literacy, numeracy and adaptive problem solving.



b) Proficiency in literacy, numeracy, and adaptive problem solving among adults.



c) Share of adults scoring at low and high proficiency levels in literacy and numeracy.



d) Effect of ageing on literacy proficiency in Italy: change in literacy proficiency within birth cohorts (2011-12 to 2022-23).

Figure 1: Indagine OECD sulle Competenze degli Adulti 2023: Italia.

However, the gap between individuals with high and low skill levels has widened. In particular, the number of adults with low literacy skills has increased, while the percentage of high performers remained unchanged (Fig. 1c).

Examining changes in skill levels with age reveals a decline after age 35, a phenomenon also observed

in other countries. Young adults born between 1989 and 1996 scored 6 points lower in literacy compared to the previous survey—a decline considered statistically insignificant. Conversely, adults who were aged 44–54 in 2011–12, now aged 55–65 in 2022–23, registered a loss of 18 points in literacy, a statistically significant decline (Fig. 1d).

It is also important to note that Italian adults' participation in lifelong learning remains relatively low compared to other countries. According to the PIAAC survey, only 24% of the Italian population engaged in lifelong learning programs, compared to an OECD average of 52%. Participation tends to decrease with increasing age.

2.2 Policies and Initiatives for Adult Education

After outlining the skill levels of adults in Italy, it is useful to provide an overview of the main policies and initiatives currently in place in the field of adult education. This section aims to offer a comprehensive view of the Italian system, highlighting the institutional, economic, and educational tools available to adult citizens. The goal is to analyze the key educational structures, support mechanisms, and opportunities for professional upskilling and reskilling, also considering the contribution of European policies.

One of the pillars of the adult education system is represented by the Provincial Centers for Adult Education (Centri Provinciali per l'Istruzione degli Adulti, CPIA) [2]. Established starting from the 2014/2015 academic year following the implementation of Presidential Decree No. 263 of October 29, 2012, CPIAs are autonomous educational institutions present throughout the national territory. They offer educational pathways for Italian and foreign citizens over 16 years of age who wish to obtain a qualification, improve basic skills, or strengthen their linguistic, cultural, and professional abilities. Their offerings include literacy and Italian language courses for foreigners; first-level programs for achieving lower secondary school diplomas; second-level programs, in collaboration with technical and professional institutes, aimed at upper secondary school diplomas; and integrative activities related to civic education, digital literacy, and career orientation.

CPIAs evolved from the former Permanent Territorial Centers (CTP), active since the 1990s. Unlike CTPs, which operated as sections within other educational institutions with a limited offering mainly focused on literacy and basic education, CPIAs are independent schools with their own leadership and governance. This change enabled greater customization of pathways, better didactic coordination, and enhanced responsiveness to local needs. However, several challenges remain: in many areas, a lack of resources limits the expansion of offerings; limited institutional visibility reduces access for more vulnerable populations; and difficulties in recognizing prior learning hinder the full effectiveness of personalized pathways.

In the university context, Italy does not have specific policies to encourage adult enrollment in degree programs. However, existing financial aid measures—such as tuition exemptions and reductions, scholarships, and tax deductions—are available to students of all ages, providing adults with opportunities to begin or resume academic studies. In the 2021/2022 academic year, over 8% of university students in Italy were over 35 years old, amounting to about 150,000 individuals out of more than 1.8 million total enrollments [3].

The growth of online universities has been particularly significant, offering a flexible solution for those with work or family commitments. In the 2022/2023 academic year, over 251,000 students chose online education, representing 13.1% of total enrollments in Italy. In just five years, the number of online students has quintupled. Enrollment among adults over 31 remains substantial, although the share of younger adults choosing online options is increasing [4].

At the economic support level, a crucial role is played by European programs, particularly the European Social Fund Plus (FSE+), which finances numerous initiatives at national and regional levels. Among these are training vouchers provided by various Italian regions within the FSE+ 2021–2027 Regional Programs [5]. These vouchers are important tools for professional reskilling, covering, partially or entirely, the costs of university courses, continuing education, or professional training programs.

Alongside these instruments, university tuition expenses paid directly by citizens are partially alleviated through tax measures. In particular, Italian legislation provides a 19% IRPEF deduction for

university tuition fees [6]. The deduction applies to the full amount for public universities, while for private institutions, limits are set annually by the competent Ministry.

Beyond CPIA programs, Italy offers many nationally and regionally recognized professional reskilling programs. Higher Technical Institutes (Istituti Tecnici Superiori, ITS) [7], for instance, offer two-year post-secondary programs in strategic technological sectors, developed in close collaboration with the labor market. Regional professional training courses, delivered by accredited institutions, allow the acquisition of skills in key areas such as tourism, craftsmanship, healthcare, and information technology. The list of active courses is available on each Region's official websites; for example, the Lazio Region maintains a dedicated portal for professional training opportunities [8].

Nonetheless, several structural issues persist: in many cases, the educational offerings are not fully updated to match labor market developments, and indirect costs (such as materials, transportation, or lack of stipends for free courses) can pose real barriers for vulnerable individuals.

At the European level, the Erasmus+ program should also be noted for its support of international mobility projects, strategic partnerships, and the exchange of best practices among educational organizations. These projects help spread innovative teaching methodologies, enhance non-formal education, and strengthen European cooperation in lifelong learning.

2.3 Non-Formal Education and the Universities of the Third Age

Finally, the landscape of non-formal education is enriched by the experience of the Universities of the Third Age (UTE). These educational initiatives were created to offer cultural and learning opportunities for adults and older individuals, promoting lifelong learning, psychological well-being, and social participation.

Although their name suggests a link to academic universities, the Universities of the Third Age are not state universities and do not confer legally recognized degrees. Nevertheless, their impact is highly significant: they represent an effective model for granting access to culture to population groups traditionally excluded from formal education.

The Italian landscape of UTEs is broad and diverse, comprising mainly three categories:

1. **Autonomous or Municipal Universities of the Third Age**: Often organized as non-profit cultural associations, promoted by local authorities, libraries, cultural clubs, or cooperatives. They operate at municipal or provincial levels, offering courses, seminars, and cultural activities for adult audiences.

2. **Popular Universities**: Institutions inspired by the 20th-century popular education movement, offering courses accessible to all, regardless of age or educational background. They often provide a broader curriculum, including interdisciplinary courses and workshops.

3. **UNITRE National Association – Universities of the Three Ages**: A national association encompassing over 350 branches across Italy and abroad. Founded in Turin in the 1970s, it promotes intergenerational education for young people, adults, and seniors with an integrated educational and cultural approach.

Universities of the Third Age offer courses and activities across a wide variety of fields:

- General culture (history, philosophy, literature, art, music, humanities);
- Foreign languages;
- Practical and creative activities (drawing, theater, sewing, writing, photography);
- Digital literacy courses (computer skills, smartphone use);
- Health and wellness education.

Access is generally open to all, with no educational prerequisites. Participation is predominantly female and involves individuals aged between 55 and 80 years, although younger adults are increasingly attracted by the cultural and social offerings.

A particularly significant example is UPTER – Università Popolare di Roma, founded in 1987. With its headquarters in Rome and a network throughout the Lazio Region, UPTER is distinguished by its rich educational offerings and its highly inclusive approach. Every year, UPTER offers over 500 courses across more than 20 disciplinary areas, ranging from the humanities to IT, from performing arts to psychology, and from creative writing to civic education. Its mission is to provide personal and cultural growth tools that are accessible, non-hierarchical, and community-oriented. UPTER exemplifies lifelong education that combines individual learning with a strong social and community dimension, offering not only courses but also public seminars, cultural events, exhibitions, and intergenerational activities promoting active citizenship and social inclusion.

The success of Universities of the Third Age in Italy is evidenced by their widespread presence, the variety of their offerings, and the stable, motivated participation they attract. In an era where demographic aging poses a major challenge, these institutions represent an effective social and cultural response, capable of valuing older adults' skills, strengthening community networks, and combating isolation. Moreover, UTEs serve as bridges between formal and non-formal education, and between learning and citizenship: spaces where access to knowledge becomes a right to dignity, active participation, and meaningful relationships.

As a complement to this report, two case studies have been included, offering a qualitative exploration of the impact of artistic approaches within adult education. One of these focuses precisely on a municipal University of the Third Age, chosen as a representative example of non-formal educational realities. Through painting, theater, photography, and cultural activities, it promotes not only lifelong learning but also social cohesion and the development of transversal skills.

This case allows for an in-depth observation of practices, participants' motivations, and perceived benefits, offering concrete insights into how art can become an effective tool for engagement and personal growth among the adult population.

2.4 The Role of Art in Lifelong Learning

In the context of lifelong learning, art and culture play a crucial role. They are not merely tools for enhancing cognitive knowledge but serve as true catalysts for the development of critical thinking, imagination, civic awareness, and social inclusion. Learning through artistic experience fosters transversal skills essential for personal, professional, and community growth.

However, the national data analysis presents a less encouraging picture. In Italy, the educational and formative potential of art and culture remains largely underutilized. Although recognized as fundamental components of both formal and non-formal education, their actual engagement by citizens remains extremely limited, both in terms of participation and investment.

ISTAT data concerning the C10 consumption function—Recreation and Culture—for 2021 offers a clear and alarming picture: only 20.1% of the Italian population participated in at least three cultural activities over the year, such as visiting museums, exhibitions, concerts, or theater performances. This marks a sharp decline from 27.7% in 2019, exacerbated by the pandemic, which intensified a pre-existing trend of cultural disengagement.

Even more critical is the comparison with the European context: the European Union average stands at 42%, more than double Italy's rate. This gap places Italy among the lowest-ranking EU countries, surpassed only by nations with less cultural infrastructure or more fragile socio-economic conditions.

These data reflect not merely individual choices but also structural issues related to accessibility, the territorial distribution of cultural offerings, educational equity, and the lack of systemic policies that promote culture as a formative driver.

Further confirming this situation, household spending on culture was only 5.4% of total expenditures in Italy in 2021, down from 6.8% in 2019. In contrast, the European average ranges between 8% and 10% in Northern European countries.

These figures indicate that culture continues to be perceived as a secondary, non-essential good in Italy. Causes include lower household incomes, limited cultural offerings in peripheral areas, poor integration between educational and cultural policies, and a weak vision of art and creativity as central tools for continuous learning.

Against this backdrop, the European Union has repeatedly emphasized the strategic importance of art and culture. In the 2018 Council Recommendation on Key Competences for Lifelong Learning, "Cultural Awareness and Expression" was explicitly listed among the eight key competences.

This competence goes beyond knowledge of artistic and cultural heritage; it includes the ability to interpret, create, communicate, and engage with various forms of expression critically and reflectively. It is recognized as fundamental for active citizenship, social cohesion, and employability.

2.5 Examples of Educational Practices Integrating Art and Learning

In recent years, Italy has also developed initiatives aligned with this vision, aimed at integrating art, culture, and lifelong learning. Notable examples include:

- Adult education programs focused on artistic and creative languages;
- Training projects combining culture and digital skills;
- Local initiatives involving museums, schools, libraries, and third-sector organizations in intergenerational educational pathways.

However, a national governance structure, systemic vision, and long-term strategy are still lacking. The real risk is that, despite their innovation, good practices will remain confined to local experiences tied to specific grants or temporary funding, without consolidating into structured public policies.

Within the national landscape, certain public initiatives stand out for their ability to combine accessibility, educational quality, and innovation, becoming exemplary models of cultural lifelong learning. Among these are two flagship initiatives: Dicolab — Digital Culture and the Educational Program of the MAXXI Museum in Rome.

2.5.1 Dicolab — Digital Culture

The "Dicolab" project was created to strengthen digital skills in the cultural sector, promoting the technological transformation of Italy's cultural heritage. It is promoted by the Ministry of Culture through the Central Institute for the Digitization of Cultural Heritage (Digital Library) and coordinated by the Fondazione Scuola dei Beni e delle Attività Culturali. The program is funded by the National Recovery and Resilience Plan (PNRR) — Next Generation EU [9].

The educational offering includes:

- MOOC (Massive Open Online Courses), free and accessible to everyone without prerequisites;
- Specialist courses, either in-person or online, delivered at regional hubs in collaboration with universities and centers of excellence (such as the Politecnico di Milano and the University of Tuscia).

Topics range from the digitization of museum collections to digital storytelling, the use of AI in culture, and augmented and virtual reality for heritage valorization.

A distinctive feature of Dicolab is the issuance of certificates or open badges upon completion, officially recognizing acquired skills. The project thus represents a concrete opportunity for professional updating and personal growth, fully aligned with the principles of lifelong and accessible learning.

2.5.2 Educational Program of the MAXXI — National Museum of 21st-Century Arts

The MAXXI Museum in Rome, Italy's foremost national museum for contemporary art and architecture, has over the years established itself as a permanent center for cultural and creative education. Its educational program offers a wide range of activities targeting schools, families, adults, young people, and vulnerable groups, aiming to promote art as a tool for critical, experiential, and participatory learning [10].

Key activities include:

- Guided and interactive exhibition tours;
- Creative workshops and educational pathways;
- Workshops, meetings with artists, and inclusive intergenerational activities.

The MAXXI's approach is based on the principle of "learning by doing": learning through action, exploration, and creation. The museum thus becomes a place of reflection, expression, and social dialogue, where contemporary art is interpreted as a means to understand reality and stimulate critical thinking.

Activities are offered free of charge or at symbolic costs, supported by the Ministry of Culture and the public mission of the Fondazione MAXXI.

Dicolab and the MAXXI Educational Program demonstrate that it is possible in Italy to develop concrete, sustainable models of cultural lifelong learning that are open, inclusive, and innovative. Both initiatives offer free or accessible training opportunities for a wide and diverse audience, basing their success on the integration of education, art, and digital transformation.

In a context still marked by educational inequalities and fragmented cultural participation, these experiences represent virtuous models to be valorized, supported, and replicated, in line with European directives and the challenges of lifelong education.

3 The Impact of Art on Social Skills in Adults

In the contemporary educational landscape, the acquisition and enhancement of social skills emerge as a transversal priority, recognized at both national and European levels. In an increasingly complex and interconnected social and professional context, abilities such as empathy, effective communication, collaboration, and emotional management are essential for promoting inclusion, individual well-being, and active citizenship.

This chapter aims to explore how art and artistic practices can contribute to the development of these skills in the adult population, which is often excluded from traditional educational pathways. The chapter is structured into two main sections, with the objective of investigating the relationship between social skills development and art-based educational practices within the framework of lifelong learning:

- The first section provides a general overview of socio-emotional skills, drawing on the results of the international OECD-SSSE (Social and Emotional Skills Survey) conducted in Italy. The goal is to understand how the enhancement of soft skills is increasingly entering the educational agenda, also from a lifelong learning perspective.
- The second section is entirely dedicated to analyzing the educational potential of art—both as an active practice and cultural engagement—in the development of social skills in adulthood. Scientific research, field experiences, and contemporary theoretical approaches are explored, all of which recognize art as an effective and transversal formative tool. To support this reflection, three key contributions are presented:
    1. An academic thesis focused on art-based methodologies for the development of soft skills;
    2. An essay on museum education, exploring museums as transformative environments for relational learning;

3. A European strategic document redefining the role of museums as central actors in lifelong education.

This analysis aims to demonstrate how the integration of art, education, and personal development can represent one of the most promising pathways for promoting continuous learning and adult empowerment in an accessible, engaging, and inclusive manner.

3.1 The Contribution of the OECD-SSSE Survey in Italy: Perspectives for Lifelong Education

An important contribution to understanding the state of socio-emotional skills comes from the Survey on Social and Emotional Skills (SESS) promoted by the OECD.

In 2023, Italy participated in the second cycle of the OECD-SSSE international survey, coordinated by the Fondazione per la Scuola della Compagnia di San Paolo in collaboration with the Regional Education Offices of Piedmont and Emilia-Romagna. The survey involved 110 Italian schools and over 6,000 fifteen-year-old students from urban areas in Turin, Bologna, Modena, and Reggio Emilia. It is part of a global project covering 52,000 fifteen-year-old and 18,000 ten-year-old students across 16 participating sites (countries and subnational regions). In Italy, data collection was preceded by a pilot phase in spring 2022 and was completed in March 2023.

The survey aims to describe and measure students' socio-emotional skills, to understand the factors influencing their development (such as family and school contexts), and to study their impact on personal well-being, academic performance, and future aspirations. All participating schools were invited to take part in a training program on socio-emotional skills, and in 2024 they received a personalized feedback report.

The collected data reveal that, compared to the average of other participating sites, Italian students from Turin and Emilia-Romagna display higher levels in several socio-emotional competencies, including optimism, energy, and stress resilience. These competencies are positively associated with psychological well-being, relational satisfaction, a better self-image, and healthier habits. Moreover, emotional regulation and relational abilities (such as assertiveness and sociability) correlate with lower anxiety during lessons and assessments.

A significant correlation was found between soft skills and academic achievement: students demonstrating higher perseverance, responsibility, self-control, and motivation achieve better average grades in mathematics, reading, and arts, regardless of gender or socio-economic background. Curiosity and open-mindedness (including tolerance and creativity) are also positive predictors of academic performance, though with varying intensity across regions.

Regarding future aspirations, 70% of students in Emilia-Romagna and 77% of those in Turin intend to complete tertiary education, although these percentages are lower than the overall survey average (84%). In terms of career ambitions, 48% in Emilia-Romagna and 53% in Turin express a desire to hold managerial or highly qualified positions by the age of 30. These ambitions are strongly linked to competencies such as creativity, empathy, curiosity, assertiveness, and achievement motivation.

The results highlight a positive correlation between socio-emotional competencies—such as self-control, motivation, and responsibility—and academic success, personal satisfaction, and professional aspirations. Particularly, students with more developed socio-emotional profiles tend to demonstrate greater stress resilience, intrinsic motivation, and higher educational ambitions. However, significant disparities related to socio-economic status, gender, and territory also emerge, emphasizing the need for more inclusive and systemic educational policies.

In line with these reflections, in May 2023, the Italian Ministry of Education and Merit endorsed the document "The Socio-Emotional Dimension as a Pillar of the National Education and Training System" [11], signed by numerous institutional stakeholders. The document advocates moving beyond the exclusive centrality of disciplinary skills, recognizing the full educational dignity of relational and emotional dimensions of learning. This implies an evolution toward a more human-centered educational model, oriented toward the holistic development of individuals.

Although the survey focuses on the school-aged population, the growing attention to socio-emotional skills raises an important question: how can the development of these abilities be promoted in adulthood?

In a continually evolving social and economic context, fostering personal growth can no longer be confined to the school years but must extend throughout the entire lifespan, embracing a true vision of lifelong education.

While at the European level the importance of transversal skills has been widely recognized—consider, for instance, the European Skills Agenda 2020–2024 and the 2018 Council Recommendation on Key Competences for Lifelong Learning [12]—Italy still lacks a comprehensive national infrastructure dedicated to soft skills development in adulthood. Existing experiences are often fragmented, tied to local projects or temporary initiatives.

3.2 The Potential of Art in Soft Skills Education: Studies, Relevant Research, and Good Practice Examples

In this scenario, the need to explore non-formal educational methods capable of engaging individuals distant from traditional learning pathways becomes increasingly evident. In particular, artistic and cultural activities are proving to be effective tools for fostering the natural and participatory development of socio-emotional skills. Through the language of art—whether expressive or workshop-based—deep processes are activated, including:

- Interpersonal communication and self-narration;
- Empathy and active listening;
- Emotional expression and management;
- Creative collaboration and lateral thinking.

This report aims to deepen the connection between artistic exploration and the development of transversal skills in adulthood, analyzing research, educational practices, and experimental models at both national and international levels. The goal is to understand how art can become an accessible and inclusive instrument of personal empowerment, capable of meeting adults' educational needs and strengthening social cohesion.

3.2.1 Art and Soft Skills: Art-Based Educational Methodologies for Transversal Competence Development, Zanin [13]

This work explores the educational potential of artistic methodologies within lifelong learning contexts, focusing particularly on the development of transversal competences—commonly known as soft skills or life skills. Art, long a vehicle of meaning and expression, is here investigated as an active and transformative educational methodology that fosters personal, relational, and social growth.

The thesis is based on the assumption that the contemporary educational system must transcend a purely transmissive model focused on disciplinary knowledge, embracing a holistic formation of the individual. Art, considered as a methodology rather than just a content, offers one of the most effective responses to this emerging need.

The author draws inspiration from John Dewey's concepts, according to which aesthetic experience is central to learning processes. When structured within supportive and active educational environments, artistic experience spontaneously activates competences such as critical and creative thinking, empathy, self-awareness, communication skills, emotional regulation, and collaboration.

Each meaningful artistic experience thus becomes an exercise in soft skills, creating a reciprocal relationship between content and method.

Through a systematic review of scientific studies published between 2012 and 2022, Zanin highlights the growing convergence between artistic practices and the development of life skills, both in schools and adult education contexts. Key findings include:

- Effectiveness of art-based methodologies in activating critical thinking, effective communication, stress management, and empathy;
- Centrality of the process over the artistic product, focusing on personal growth and participant expressive freedom;
- Emphasis on valuing error and intuition as integral parts of the learning process.

Many projects target adults in situations of vulnerability or requalification, showing that artistic practices help rebuild professional and personal identities within training or reintegration contexts.

Artistic practices allow for active engagement, both cognitively and physically, facilitating holistic learning experiences:

- Encouraging creativity, reflection, and personal expression;
- Valuing the process over the outcome;
- Stimulating open-ended questioning and a plurality of responses;
- Providing non-judgmental, safe learning environments;
- Embracing inclusivity aligned with Universal Design for Learning (UDL) principles.

Art acts as an expressive and symbolic tool facilitating emotional reworking, critical thinking, and self-awareness, making it highly effective in educational, social, and training contexts.

Despite promising results, the research identifies several challenges limiting the systematic dissemination of art-based methods:

1. Evaluation difficulties: lack of shared and validated tools to rigorously measure educational impact;
2. Absence of detailed descriptions: many studies use generic terminology without clarifying techniques, limiting replicability;
3. Dominance of "making art" over cultural engagement: insufficient synergy with museum spaces and informal cultural environments that could enhance educational impact.

The thesis suggests several promising directions:

- Development of more effective and shared evaluation tools;
- Creation of a documented archive of good practices;
- Strengthening the link between schools and cultural institutions such as museums and libraries;
- Deepening the role of visual and digital languages, increasingly central in contemporary communication.

Art is not only a medium for creative thinking but also a transformative agent connecting knowledge, emotions, relationships, and future visions. The challenge lies in structuring it as an accessible, systemic educational methodology for developing the ten life skills defined by the WHO.

3.2.2 Considerations on the Evaluation of Educational Processes in Museums, Da Milano [14]

In the context of lifelong learning, artistic and cultural exploration takes on a meaning that goes far beyond aesthetic enjoyment. Museums today represent privileged environments for activating transversal competences, especially in adulthood, offering formative experiences engaging the cognitive, emotional, and relational dimensions.

In her essay *"Adult Education in Museums: From Theory to Best Practices"* (2013), Cristina Da Milano reflects on the museum's educational value, presenting it as a dynamic environment capable of addressing contemporary societal educational needs and contributing to social cohesion and individual well-being.

A central insight highlighted by the author is the shift from knowledge transmission to process-centered education, where museums become:

- Non-linear, transformational learning environments;
- Spaces generating unexpected outcomes like self-confidence, learning motivation, communication, and collaboration skills;
- Sites fostering critical thinking, empathy, self-awareness, and emotional regulation.

These competences arise not directly from content but from complex interactions among visitors, objects, narratives, educational mediation, and context.

Another key point is the proposal to move beyond standardized performance-oriented assessment, adopting a qualitative, flexible, and participatory evaluation model that:

- Conducts ex-ante evaluation to understand audience needs;
- Implements formative evaluation during activities;
- Reflects through ex-post evaluation on educational outcomes and transformations.

Evaluation becomes an integral part of learning, engaging educators, participants, and communities, valuing also the positive "side effects" often overlooked by traditional methods.

Examples, such as the social impact documentation by the Museo di Montebelluna, demonstrate that museums investing in education, accessibility, and inclusion can produce tangible social benefits. Da Milano argues for a vision of museums as learning organizations capable of self-reflection, goal redefinition, and adaptation to emerging adult educational needs.

3.2.3 Developing Education and Public Engagement in Museums, NEMO [15]

The document *"Developing Education and Public Engagement in Museums"* by NEMO – Network of European Museum Organisations, in collaboration with the German Museums Association and the German Association for Museum Education, provides a comprehensive practical and theoretical guide to rethinking and strengthening the educational and social role of museums.

Museums must be inclusive, participatory, and person-centered, contributing to the development of:

- Knowledge and understanding;
- Practical and social skills;
- Values and attitudes;
- Behavioral changes;
- Inspiration, creativity, and enjoyment.

The document advocates museums as environments of meaningful, lifelong learning stimulating mind, identity, and active citizenship.

NEMO recommends using diverse, accessible educational formats considering different learning styles (auditory, visual, motor, communicative) and participants' needs, including:

- Playful and sensory activities (e.g., gamification, workshops);
- Digital learning (AR, podcasts, educational apps);

- Personal education (guided tours, artist encounters);
- Participatory and co-creation methodologies.

Attention is given to engaging marginalized audiences, promoting cultural democratization and social justice.

Museums are called to evolve into learning organizations capable of:

- Defining clear educational objectives;
- Creating participatory strategies;
- Adopting narrative and qualitative evaluation methods;
- Embracing change, dialogue, and experimentation.

The NEMO document, curated by Margherita Sani and the LEM (Learning Museum) working group, offers a rich operational and conceptual framework for reimagining museums as spaces for personal growth, social well-being, and sustainable development, aligned with UNESCO and EU goals.

3.3 Conclusions

Through these three examples, we have seen how artistic exploration impacts soft skills, how museums can be reimagined as permanent educational agents evolving with their audiences, and how crucial evaluation, guidelines, and standards are for defining and improving these educational practices. The second case study analyzed will specifically focus on an example of a museum education project, emphasizing the definition of standards and evaluation techniques.

4 The Impact of Art on Adults' Digital Skills

The intersection between art and digital skills is a topic of growing interest, with numerous studies exploring its impact. The digitalization of art not only revolutionizes artistic practices but also fosters the development of digital skills among both artists and audiences. New technologies, on one hand, allow for the dissemination and enhancement of art; on the other hand, art itself becomes an effective means of transmitting and strengthening digital skills.

This chapter aims to explore the intersection of art and digitalization, first offering an overview of digital skills in Italy, with particular focus on literacy levels among the adult population. Subsequently, studies, projects, and best practices will be analyzed to demonstrate how art, integrated with digital tools and languages, can become a privileged channel for fostering digital skills acquisition, encouraging autonomy, creativity, and social inclusion.

4.1 The Landscape of Digital Skills in Italy

According to the ISTAT "Statistica Today ICT 2023" report [16], Italy ranks among the lowest in Europe regarding the population's level of digital literacy. In 2023, only 45.9% of individuals aged 16 to 74 possessed at least basic digital skills, placing Italy 23rd out of 27 EU countries, with a gap of about 10 percentage points from the EU average.

The gap is particularly critical among adults and seniors: only 19.4% of those aged 65–74 possess adequate digital skills, compared to 59.1% among young people aged 16–24. Educational attainment is also a decisive factor: among university graduates, 74.1% reach at least basic skills, while levels are much lower among the less educated.

Other concerning data include ICT training in Italian enterprises (54.7% compared to the EU average of 65.3%) and the proportion of ICT graduates, which stood at just 1.5% in 2022 (compared to 4.5% EU

average). Although there has been a slight increase in ICT specialists (+19% since 2019), Italy still lags behind the EU development rate (+24.1%).

This overview confirms that Italy faces major challenges regarding adult digitalization—not only in terms of access and technology use but also concerning transversal digital competences such as problem-solving, online safety, and content creation.

Thus, it becomes urgent to identify alternative, effective tools for digital learning that can overcome the cultural and motivational barriers preventing adult access to digital competences. This is precisely where the role of art and culture in supporting digital skills development becomes central, as explored in the following sections.

4.2 The Link Between Art and Digital Skills: Studies, Research, and Best Practices

The digitalization of art not only revolutionizes artistic practices but also fosters digital skills development, both among creators and audiences. New technologies enhance the dissemination of art while transforming art itself into an effective medium for digital learning.

4.3 Digital Environments for Art and Heritage Education [17]

The volume *Digital Environments for Art and Heritage Education* gathers multidisciplinary contributions presented during a 2017 conference organized by the Department of Educational Sciences at the Free University of Bozen-Bolzano. It investigates how digital technologies can be integrated into artistic educational processes, both in schools and museums, promoting an innovative, inclusive, and participatory approach to cultural heritage.

Several key contributions emphasize the educational value of digitalized art:

- Panciroli and Macauda discuss virtual museums and digital platforms that transform passive viewing into immersive, educational experiences.
- Paola Puma describes the use of augmented reality and 3D printing within the Digital Cultural Heritage (DigitCH) program to bring audiences closer to artworks while promoting both artistic and digital competences.
- Daniele Rossi and collaborators explore the use of VR to make cultural heritage more accessible and engaging, enhancing learning, inclusion, and motivation.

Common themes emerging include the ability of digital environments to promote active public engagement, stimulate digital and transversal skills (such as creativity, collaboration, and curiosity), and enhance inclusivity by overcoming cultural, physical, and cognitive barriers.

4.3.1 Representing Artworks with Digital Technologies: From Augmented Reality to Tactile Experiences [17]

Alberto Sdegno's article *"Representing Artworks with Digital Technologies: From Augmented Reality to Tactile Experiences"* offers an experimental perspective on how digital technologies can transform the viewing, teaching, and understanding of art.

Two case studies are presented:

- **The Wedding at Cana** by Paolo Veronese: a 3D and AR model was created, allowing real-time navigation through the painting's architectural and narrative elements. This immersive exploration stimulates critical thinking, analytical observation, and aesthetic sensitivity.
- **Busts by Franz Xaver Messerschmidt**: High-definition 3D scans were used to create tactile replicas, enhancing accessibility for blind and visually impaired individuals.

Both projects demonstrate that digital technologies can become transformative learning environments, encouraging active engagement, empathy, and reflection.

4.4 Digital Art and Social Inclusion: A Study on Digital Technology Use in Art Therapy with Adults with Developmental Disabilities [18]

The study *"Digital Technology Use in Art Therapy with Adults with Developmental Disabilities"* (Darewych et al., 2015) explores the integration of digital tools in art therapy sessions for adults with developmental disabilities.

Eight adults participated in a five-session program using touchscreen devices and apps like Fresh Paint and Coloring Mandalas. Findings included:

- Development of basic digital and cognitive skills (memory, concentration, problem-solving);
- Rich personal and emotional expression through digital art;
- Effectiveness of traditional artistic directives translated into digital environments.

This study highlights how digital technologies, when properly integrated, expand expressive and therapeutic opportunities, promoting autonomy and inclusion.

4.5 The DICHE Project: Digital Innovation for Heritage Education and 21st Century Skills [19]

The Erasmus+ DICHE project involved six European partners, including Roma Tre University, aiming to integrate digital tools into cultural heritage education and promote 21st-century skills (creativity, communication, collaboration, critical thinking).

Key outcomes:

- Implementation of digital storytelling and Object-Based Learning in schools and museums;
- Development of a "digital menu" of freely accessible, customizable teaching scenarios;
- Involvement of education students in creating MOOCs for museum education using platforms like Orbis Dictus and Powtoon.

The project promotes a "critical technology" approach, emphasizing personal development and conscious citizenship through the integration of art, culture, and technology.

Importantly, the contamination between art and digital skills is mutual: engaging with art using digital tools naturally fosters familiarity and competence with technologies.

4.6 Conclusions

This chapter clearly demonstrates how art and culture, when integrated with digital technologies, can serve as powerful catalysts for developing adults' digital competences. The analyzed case studies—from museum projects to art therapy initiatives, to European programs—show how artistic experiences (immersive, collaborative, tactile, or narrative) can become meaningful and accessible learning experiences.

Particularly, the experiential and participatory nature of art helps break down cultural and motivational barriers that often hinder digital skills acquisition among adults. The inclusive, multisensory, and interactive approaches transform digital learning into a human, creative discovery.

Not only does art embrace digitalization, but digitalization, through art, becomes more accessible, human, and educational. This reciprocal relationship creates a virtuous cycle, promoting informal and natural digital learning.

Thus, the intersection between art and digital technology represents a powerful educational lever, capable of activating transformative processes even in informal and unconventional settings. Promoting policies and projects that integrate culture, creativity, and technological innovation can therefore play a decisive role in bridging the digital divide while reinforcing transversal competences necessary to address the challenges of contemporary society.

5 Innovative Approaches and Methodologies

This chapter explores innovative educational approaches and methodologies that integrate artistic practices and digital tools, contributing to the development of transversal and digital skills in adults.

The first section is dedicated to the STEAM (Science, Technology, Engineering, Arts, Mathematics) approach, an evolution of the STEM model that includes the arts and creativity within scientific and technological training paths. It reconstructs the concept's evolution, analyzes its pedagogical relevance, and discusses its added value regarding contemporary educational challenges. Reflections on the effectiveness of the STEAM approach, based on recent studies and evaluations, will be followed by a presentation of Italian projects demonstrating its applicability in both formal and non-formal contexts.

Next, the chapter delves into digital tools and platforms used in art-based learning. Examples of technologies designed to foster creative interaction, inclusive cultural access, and artistic experimentation through digital means will be presented, highlighting their educational potential for adult learning.

5.1 The STEAM Approach

STEAM—Science, Technology, Engineering, Arts, and Mathematics—is an evolution of the previous STEM model, with the addition of "Arts" to bring creative, expressive, and aesthetic dimensions into scientific-technological education [20]. The inclusion of the arts emphasizes the need to develop not only technical and analytical skills but also transversal competences such as critical thinking, imagination, communication, and empathy.

Georgette Yakman (2008, in [20]) was among the first to provide a structured definition, describing STEAM as a model that organizes traditional disciplines into an integrated framework where science and technology are interpreted through engineering and the arts, based on the universal language of mathematics. The goal is to overcome fragmented teaching and build meaningful connections between fields, offering students real tools to understand the world and solve complex problems. The approach is grounded in constructivist, student-centered pedagogy and emphasizes authentic, project-based learning connected to real-life situations.

Silverstein and Layne (2010, in [20]) also contributed to defining STEAM as an educational approach in which students demonstrate understanding through artistic and creative processes. Art here is not mere decoration but a method that encourages personal expression, experimentation, and the integration of diverse visions. Elliot Eisner (2008) described the arts as stimulating empathy, imagination, emotional awareness, and open-mindedness—qualities indispensable in today's society.

STEAM has ambitious goals: to promote comprehensive education combining scientific rigor and artistic sensitivity, enhance 21st-century skills (creativity, problem-solving, collaboration), and motivate students through engaging learning experiences. According to Setiawan & Saputri (2019, in [20]), STEAM aims to foster cognitive, emotional, and ethical development, preparing students to become responsible citizens and conscious innovators.

International research shows promising results. Park (2016, in [20]) found that South Korean teachers recognized the approach's effectiveness in increasing student interest, autonomy, and understanding. Liao (2016, in [20]) notes that STEAM offers opportunities to transcend traditional disciplinary boundaries, intertwining knowledge with personal and social experiences.

Furthermore, STEAM has proven valuable for educational inclusion. International initiatives show that integrating the arts helps engage disadvantaged students or those with learning difficulties, improving participation, self-esteem, and academic achievement (Clark, 2014; Reddy & Rahman, 2015, in [20]).

Thus, the STEAM model aligns perfectly with the objectives of this report: to enhance the role of art in educational processes, leveraging digital technologies to promote holistic, creative, and person-centered education.

5.1.1 Evidence on the Effectiveness of the STEAM Approach in Education

Scientific literature increasingly confirms the effectiveness of STEAM in promoting engaging, inclusive, and multidimensional learning. Various studies highlight how integrating artistic practices within STEM

disciplines enriches the educational experience and fosters the development of essential 21st-century skills.

A significant example is the study by Wee-Ling Tan et al. [21], investigating the use of the visual programming language Scratch to foster computational thinking. Scratch, developed by the MIT Media Lab, is free and accessible via browser or app [22]. It allows users to create interactive stories, games, animations, and digital art through a visual coding system. Scratch seamlessly blends creativity and programming, making it ideal for STEAM activities.

Key functionalities include:

- **Creation of Visual Content**: Drawing characters, animating graphics, and designing interactive digital art.
- **Storytelling and Narrative Development**: Multimedia storytelling projects that combine drama, music, and visual arts.
- **Music and Sound**: Adding and creating music and sound effects.
- **Interactive Artistic Projects**: Encouraging experimentation, design, and imagination through code.

Tan's study involved 59 Malaysian students in designing educational videogames about electricity, combining scientific concepts with artistic components. The pre- and post-test results showed significant improvements in all five dimensions of computational thinking, with particularly strong gains in creativity and critical reflection. Integrating art helped visualize abstract concepts, improved understanding, and boosted student engagement, without gender-based differences in effectiveness.

Further evidence comes from Gamar et al. [23], who evaluated a STEAM-based Project-Based Learning (PjBL) model's impact on critical thinking among 200 students. The experimental group achieved a post-test score of 74% compared to 64% for the control group, with notable improvements in inference, strategy, communication, and collaboration.

Another study by Helvacı and Yılmaz [24] explored STEAM integration within visual arts education in a Turkish secondary school. The six-week intervention included orbital painting, spaghetti engineering structures, and video art inspired by Jackson Pollock. Quantitative results showed significant improvement, especially in the artistic dimension.

All three studies converge on the idea that art within STEM contexts acts as a catalyst for conceptual understanding, creativity, soft skills development, and inclusive, motivating education.

In recent years, STEAM initiatives have also grown in Italy. Projects like *STEAM4Future* [25], supported by Boeing Italy, and the early childhood *Arte e Scienza* project [26], demonstrate how STEAM can be successfully applied across all educational levels. The platform *STEAMItalia.it* [27] collects best STEAM practices from Italian schools, offering interdisciplinary teaching models.

5.2 Digital Tools and Platforms for Art-Based Learning

5.2.1 ArtCentrica — Cloud-Based Art Education

ArtCentrica [28] is a digital platform transforming art education through interactive technology. Developed by Centrica with academic and museum partners, it offers high-definition access to masterpieces from the Uffizi, Brera, and Vatican collections, among others.

Key features:

- Ultra-detailed zoom into brushstrokes, textures, and symbolic elements;
- Contextual descriptions, iconographic analyses, historical references, and interdisciplinary connections;
- Tools for creating thematic connections, storytelling, and personalized learning paths.

ArtCentrica promotes active, exploratory, and critical learning, serving as a flexible tool for both remote and in-person education. It democratizes cultural access and strengthens digital and visual literacy.

5.2.2 Artsteps — Creating Virtual 3D Exhibitions

Artsteps [29] is a web platform enabling the creation, exploration, and sharing of 3D virtual exhibitions. Originally designed for the arts and cultural sectors, it is now widely used in education for experiential learning and visual storytelling.

Functionalities:

- Custom 3D spaces for exhibitions;
- Insertion of images, videos, text, and interactive multimedia content;
- Free navigation online or with VR headsets.

Artsteps promotes critical thinking, visual communication, collaborative design, and media literacy. It is an excellent tool for active, interdisciplinary learning, making aesthetic experience an opportunity for personal expression, collaboration, and innovation.

6 Conclusions

The *ARTSKILLS* project clearly highlighted the educational value of art as a driver for developing transversal and digital skills in adults. Through a review of the state of the art and innovative practices, solid evidence emerged regarding the ability of artistic practices to stimulate creativity, collaboration, critical thinking, empathy, and digital literacy.

6.1 Main Findings

- **Art as a catalyst for soft skills**: Both expressive and critical engagement with artistic practices proved effective in enhancing relational, communicative, and emotional skills, which are fundamental for social inclusion and active participation.
- **Digital tools as an educational bridge**: The integration of digital tools within artistic activities facilitates access, interaction, and learning, breaking down cultural, cognitive, and physical barriers.
- **The value of non-formal learning**: Institutions such as Universities of the Third Age and museum educational services confirm the importance of alternative and inclusive educational spaces for lifelong learning.
- **Evaluation as a transformative practice**: The analyzed experiences emphasize that evaluation should not merely measure outcomes but should become an integral and transformative part of educational design.

6.2 Limitations Identified in the Italian Context

Despite the emerging potential, several critical issues remain:

- **Low average level of digital skills**: OECD and ISTAT data confirm a significant gap in digital skills among the Italian adult population compared to the European average, particularly among those over 50.
- **Limited cultural participation**: Engagement with cultural heritage remains low compared to European standards, hindered by economic, territorial, and cultural barriers.
- **Fragmentation of initiatives**: There is a lack of coordinated and systemic national policies that integrate culture, education, and social inclusion on a large scale.
- **Weak evaluation culture**: In educational services, particularly in museums, evaluation is often perceived as an accessory practice rather than a structurally integrated component.

6.3 Recommendations for Improvement

To enhance the impact of artistic and digital practices in adult education, the report suggests:

- **Develop integrated public policies** that systematically recognize the role of art and culture in lifelong learning pathways.
- **Strengthen the digital infrastructure** of educational programs, ensuring accessibility, continuous training, and adequate tools, particularly for the most vulnerable adult populations.
- **Support innovative pedagogical approaches**, such as the STEAM model and experiential learning, capable of combining creativity, technology, and transversal skills.
- **Promote participatory evaluation methodologies**, focusing not only on quantitative results but also on the qualitative impacts on participants.
- **Further personalize educational pathways**, taking into account differences in initial skills levels and cultural backgrounds.

7 Appendix 1, First Case Study: Educating through Art: the Case of UNITRE Fondi in the Context of Lifelong Learning

As mentioned in Chapter 2 (2.3), Universities of the Third Age represent a valuable resource for non-formal education in Italy, offering accessible, intergenerational, and person-centered educational paths for adults. In this context, local cultural associations inspired by the UTE model play a key role in social inclusion, well-being promotion, and lifelong learning.

This first case study aims to closely examine an example of a University of the Third Age established as an autonomous, locally rooted social promotion association. The objective is to understand the perceived impact of the artistic and cultural activities offered by this organization on the development of transversal, digital, and personal skills among adult participants.

The case study is structured into three parts:

1. An introductory overview presenting the identity, mission, and main activities of the association;
2. A review of demographic data collected to celebrate the tenth anniversary of the association featured in the case study, illustrating the evolution of participation over time;
3. A qualitative analysis based on an original questionnaire designed and administered within the European ARTSKILLS project, referenced by this report, aimed at exploring the effectiveness of artistic educational practices in enhancing soft skills and personal growth in adulthood.

7.1 University of the Third Age of the Municipality of Fondi

The case examined is the University of the Third Age of the Municipality of Fondi, known as UNITRE Fondi, an active institution since 2014 representing a virtuous example of non-formal education embedded in the local social fabric.

Fondi is a town in Lazio, located in the province of Latina along the axis between Rome and Naples. With approximately 39,000 inhabitants, it boasts a significant historical, archaeological, and cultural heritage and plays a strategic role between the inland and coastal areas of southern Lazio. In this culturally rich context, UNITRE acts as a hub for lifelong learning and social participation for adults.

The association was established as a non-profit social promotion organization, founded with the goal of creating an accessible, welcoming, and stimulating space to cultivate knowledge, human relationships, and active citizenship. The commitment of volunteer teachers and organizers underpins the association's ethos of inclusion, sharing, and learning across generations.

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Guiding the mission of UNITRE Fondi is the Latin motto *"Scientia vetustatem coercete"*, meaning "With knowledge, restrain old age." This principle reflects the belief that continuous education and culture are fundamental tools for keeping both mind and body active, as well as for strengthening social belonging and cohesion.

The association's main activities are organized into four areas:

- A wide educational offer encompassing humanities, arts, sciences, and digital disciplines, constantly updated according to participants' needs;
- Initiatives to promote the local cultural heritage, such as art restoration projects and donations of artworks to the city;
- Solidarity and active citizenship initiatives, including charity events, school projects, and fundraising campaigns;
- Collaborations with other local associations, fostering a dynamic and inclusive community network.

Thus, UNITRE Fondi stands as a reference point for the adult population, promoting an approach to learning that goes beyond mere knowledge accumulation and emphasizes relational well-being, creative discovery, and intergenerational encounters.

7.2 Participation and Demographic Profile, Educational Offer and Teacher Involvement

On the occasion of its tenth anniversary, UNITRE Fondi compiled a report collecting data on the profile of all its members over the decade 2014–2024. The following data thus represent the outcome of this ten-year analysis of the entire enrolled population. From 2014 to 2024, UNITRE Fondi involved a total of 2,319 enrolled participants. Attendance remained consistently strong, peaking between 2016 and 2017 (335 enrollments) and experiencing a significant resurgence after the pandemic. The student population is predominantly female, as shown by the annual M/F ratio. The prevalent age range of participants is between 50 and 74 years, with over 1,000 enrollments from the 50–59 age group over ten years.

Regarding education levels, 41.8% of participants hold a high school diploma, 24.1% a middle school diploma, and 16.7% a university degree. Only 2.8% have completed elementary school, while 14.5% did not declare their educational background.

The number of offered subjects grew from 9 in 2014 to 26 in 2023–2024, indicating a progressive expansion of the cultural offer. Similarly, the number of teachers increased from 16 to 35, demonstrating the organization's vitality and ability to adapt to the training needs of the territory.

For the 2024–2025 academic year, during which the ARTSKILLS questionnaire was administered, the curriculum includes the following subjects:

- Philosophy
- Greek and Latin Literature
- Italian Literature
- Psycho-physical Well-being
- Embroidery, Knitting, and Crocheting
- Manual Creativity
- Practical Psychology
- Painting on Canvas
- Art History: Reading Art

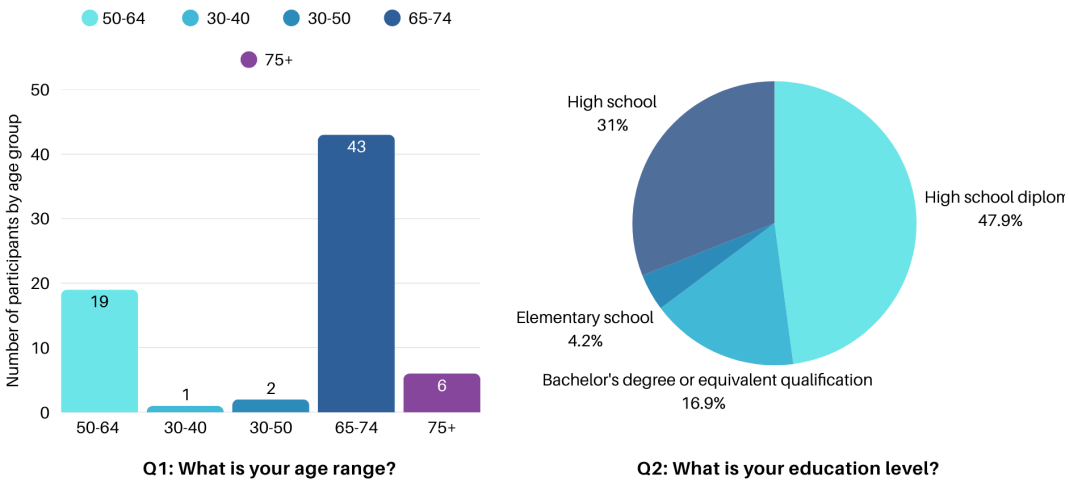
- Territorial Reading: Excursions to Cultural or Natural Sites
- German Language
- Geology
- Computer Science
- Silk Painting
- Cinematography
- Elements of Law
- English Language
- Watercolor Painting
- Music (Guitar)
- Photography
- Nutrition
- Introduction to Artificial Intelligence
- Chemistry Applied to Everyday Life
- Beauty and Self-care

7.3 ARTSKILLS Questionnaire Results

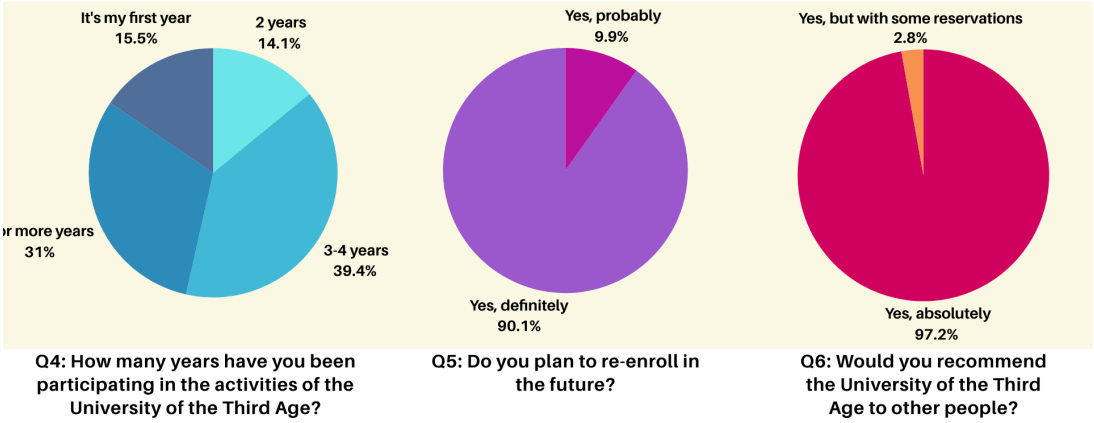
To assess the perceived impact of artistic and cultural activities on participants' personal, social, and digital development, an anonymous questionnaire was designed and administered within the framework of the European ARTSKILLS project, to which this report refers. The instrument aimed to collect qualitative data on the effectiveness of the artistic approach within a non-formal educational context, such as that offered by UNITRE Fondi. The questionnaire was administered in February 2024 and involved 71 participants out of a total of 304 enrolled in the 2024–2025 academic year. Participation was voluntary, anonymous, and fully compliant with privacy regulations (EU Regulation 2016/679 – GDPR). The data collected were used exclusively for research purposes, aligned with the project's objective of evaluating the impact of artistic exploration on adults' social and digital skills development.

7.3.1 Respondent Profile

The respondents were predominantly aged between 65 and 74 years (43 individuals, representing 60.5%), followed by those aged 50–64 years (19 individuals), with only a few respondents belonging to younger or older age groups (Fig. 2a). This distribution reflects the typical demographic involved in non-formal adult education programs. Regarding educational background, 47.8% of respondents hold a high school diploma, 30.9% have completed lower secondary education, and 16.9% possess a university degree (Fig. 2a). These data suggest a reasonably diverse educational profile, confirming the association's inclusive mission. A noteworthy finding concerns participant loyalty: 62% of respondents have been attending for more than three years, whereas only 11% were in their first year. The level of satisfaction is very high: 88% expressed their intention to continue attending UNITRE, and 97% stated they would recommend the experience to others, confirming the strong sense of belonging and the positive perceived impact (Fig. 2b).



(a) A, Question 1

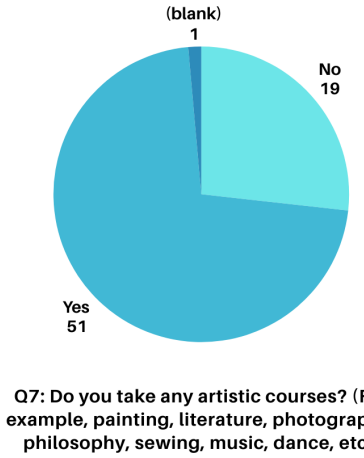


(b) B, Question 2

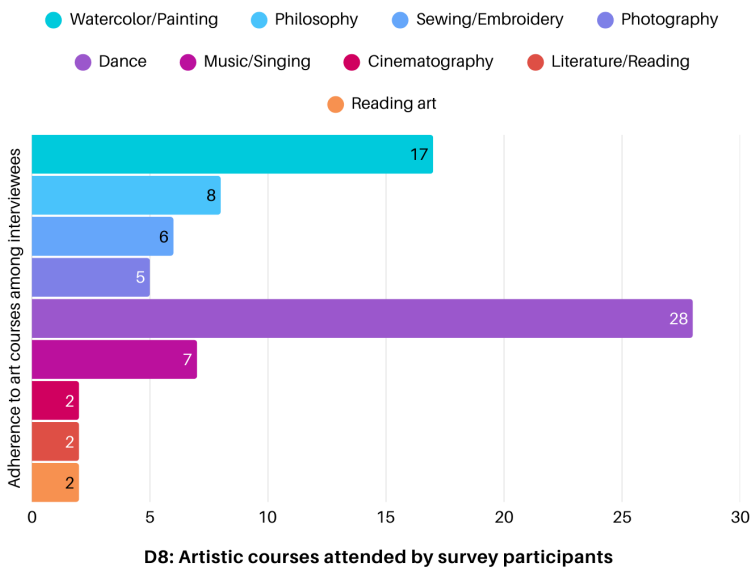
Figure 2: Respondent Profile and Program Loyalty

7.3.2 Participation in Artistic Activities

Seventy-two percent of participants reported attending artistic courses, corresponding to 51 out of 71 respondents (Fig. 3a). Among the most frequently mentioned courses were Watercolor and Painting (17 responses), Dance (28), Philosophy (8), Sewing and Embroidery (6), Photography (5), Music and Singing (7), as well as Cinema and Literature (Fig. 3b). This variety reflects the strong emphasis of the educational offering on creativity and individual expression, which are key aspects for the development of transversal skills.



(a) Participation in Artistic Activities, Question 7



(b) Participation in Artistic Activities, Question 8

7.3.3 Digital Skills

In the administered questionnaire, Question 10 was addressed exclusively to those attending courses with artistic content: out of a total of 71 participants, 51 declared that they were enrolled in such courses and thus constitute the reference group for this analysis. These respondents were asked whether, thanks to the artistic activities undertaken, they had acquired or improved skills related to the use of digital tools. The results show that 20 out of 51 participants (39.2%) reported no improvement, selecting the "None" option. Consequently, 60.8% (31 out of 51 participants) indicated at least one area in which they felt they had enhanced their digital skills. Specifically, 16 individuals reported improvements in computer use, Internet navigation, and the use of social media for cultural purposes; 5 participants also

developed skills in the use of artistic creation software, such as photo editing, video editing, or digital drawing programs. This suggests that, although a significant portion did not perceive any progress, the majority of those enrolled in artistic courses recognize a positive impact of the activities undertaken on their digital literacy.

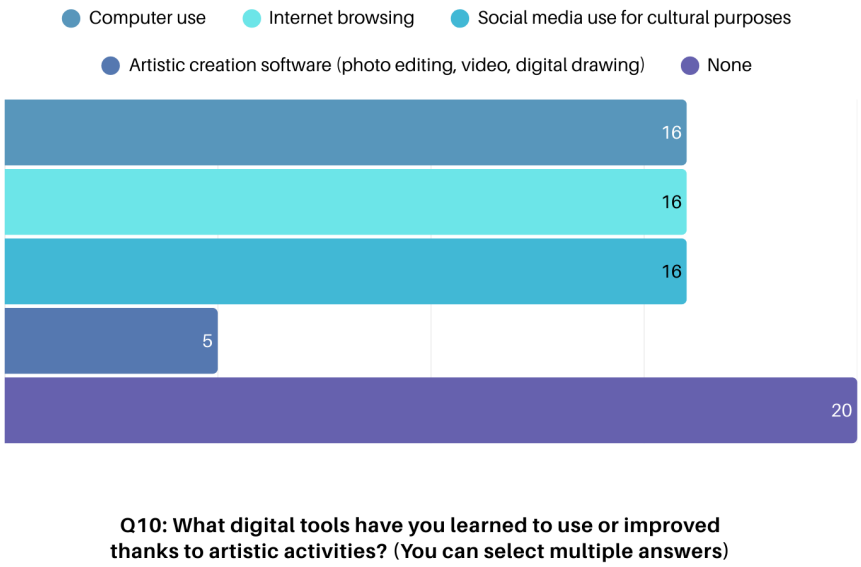
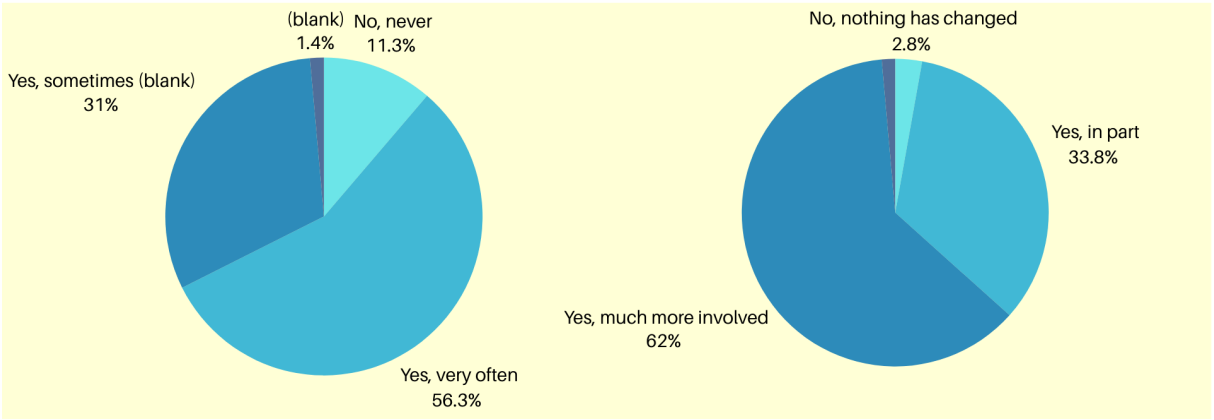


Figure 4: Participation in Artistic Activities, Question 10

7.3.4 Social Skills

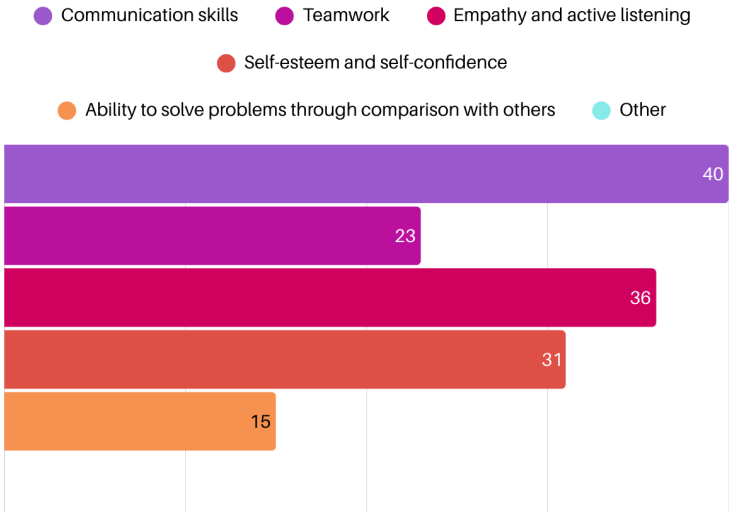
The analysis of the responses highlights a significant impact on relational skills. Eighty percent of participants reported frequently collaborating with others during the courses (Fig. 5), emphasizing the participatory nature of the activities. In terms of social skills, 56% indicated an improvement in communication, 51% in empathy and active listening, and 43% reported gains in self-esteem and self-confidence. Furthermore, 15% acknowledged developing problem-solving skills through interaction with others 6.



Q11: During your participation in the courses at the University of the Third Age, did you have the opportunity to collaborate with other participants?

Q13: Do you feel more involved in social/community life after participating in the courses at the University of the Third Age?

Figure 5: Social Skills, Questions 11 and 13



Q12: What social skills do you think you have improved thanks to participation in the University of the Third Age? (You can select multiple answers)

Figure 6: Social Skills, Question 12

7.3.5 Interest in Culture and Lifelong Learning

Participation in UNITRE activities fostered a greater openness towards culture and continuous learning. Fifty-nine percent of respondents stated that they now attend cultural events (such as museums, exhibitions, and conferences) more frequently, while 42% reported feeling more curious about learning and equally more open to new educational experiences. Additionally, 19% increased their interest in artistic and cultural topics, and 11% began reading more on these subjects. Only 2% reported no significant changes (Fig. 9).

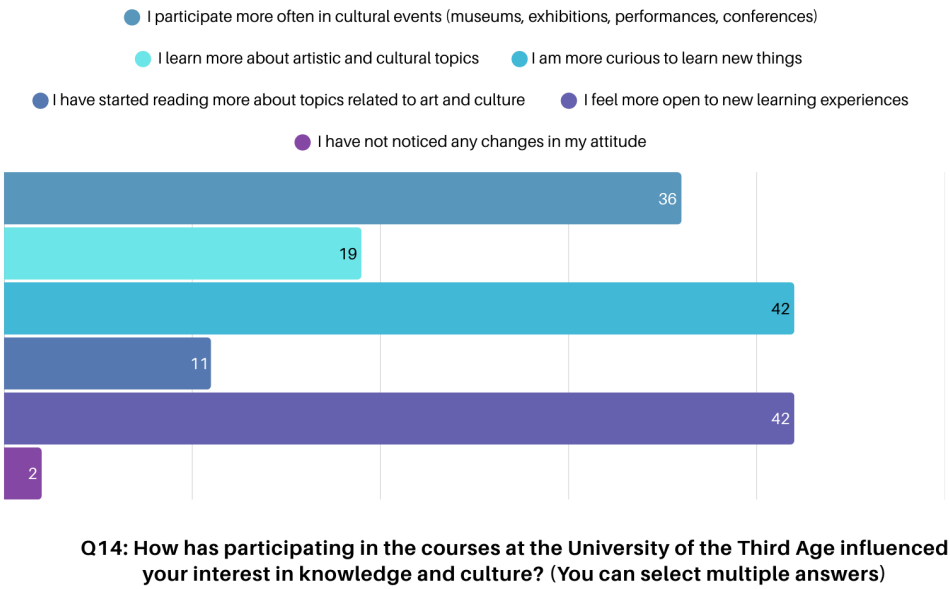
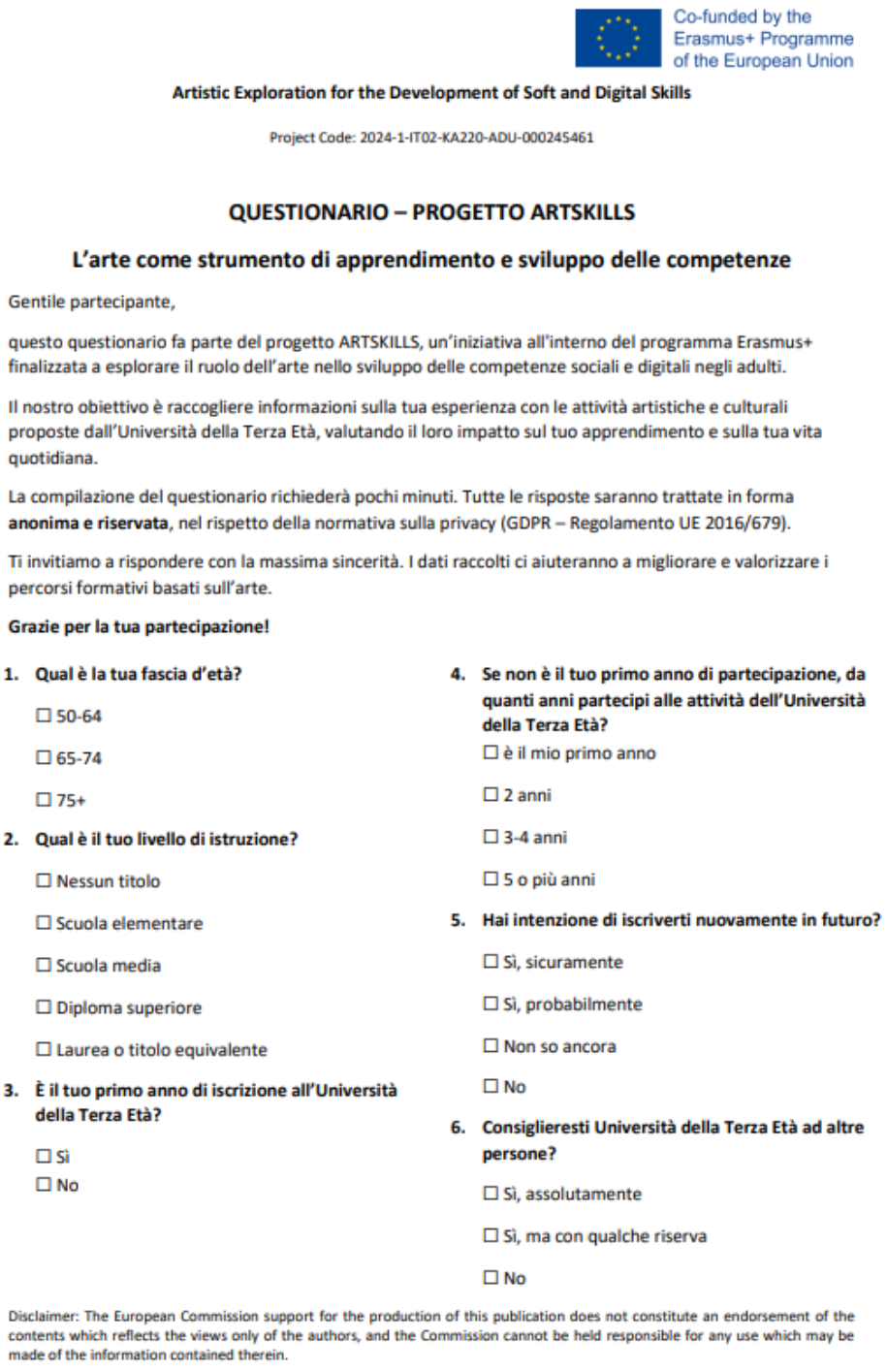


Figure 7: Interest in Culture and Lifelong Learning, Question 14

7.3.6 Conclusions

The collected data confirm the effectiveness of the approach adopted by UNITRE Fondi in fostering the development of transversal skills, strengthening the sense of community, and promoting interest in culture. The combination of artistic, relational, and educational activities has proven particularly effective in generating well-being, self-esteem, and active participation. The added value of this experience lies not only in the educational offering but also in the inclusive environment and the recognition of adults' potential as active agents in lifelong learning.

7.4 ARTSKILLS Questionnaire



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Artistic Exploration for the Development of Soft and Digital Skills

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QUESTIONARIO – PROGETTO ARTSKILLS

L'arte come strumento di apprendimento e sviluppo delle competenze

Gentile partecipante,

questo questionario fa parte del progetto ARTSKILLS, un'iniziativa all'interno del programma Erasmus+ finalizzata a esplorare il ruolo dell'arte nello sviluppo delle competenze sociali e digitali negli adulti.

Il nostro obiettivo è raccogliere informazioni sulla tua esperienza con le attività artistiche e culturali proposte dall'Università della Terza Età, valutando il loro impatto sul tuo apprendimento e sulla tua vita quotidiana.

La compilazione del questionario richiederà pochi minuti. Tutte le risposte saranno trattate in forma **anonima e riservata**, nel rispetto della normativa sulla privacy (GDPR – Regolamento UE 2016/679).

Ti invitiamo a rispondere con la massima sincerità. I dati raccolti ci aiuteranno a migliorare e valorizzare i percorsi formativi basati sull'arte.

Grazie per la tua partecipazione!

1. **Qual è la tua fascia d'età?**
   - ☐ 50-64
   - ☐ 65-74
   - ☐ 75+
2. **Qual è il tuo livello di istruzione?**
   - ☐ Nessun titolo
   - ☐ Scuola elementare
   - ☐ Scuola media
   - ☐ Diploma superiore
   - ☐ Laurea o titolo equivalente
3. **È il tuo primo anno di iscrizione all'Università della Terza Età?**
   - ☐ Sì
   - ☐ No
4. **Se non è il tuo primo anno di partecipazione, da quanti anni partecipi alle attività dell'Università della Terza Età?**
   - ☐ è il mio primo anno
   - ☐ 2 anni
   - ☐ 3-4 anni
   - ☐ 5 o più anni
5. **Hai intenzione di iscriverti nuovamente in futuro?**
   - ☐ Sì, sicuramente
   - ☐ Sì, probabilmente
   - ☐ Non so ancora
   - ☐ No
6. **Consiglieresti Università della Terza Età ad altre persone?**
   - ☐ Sì, assolutamente
   - ☐ Sì, ma con qualche riserva
   - ☐ No

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Figure 8: ARTSKILLS Questionnaire administered at UNITRE Fondi, page 1

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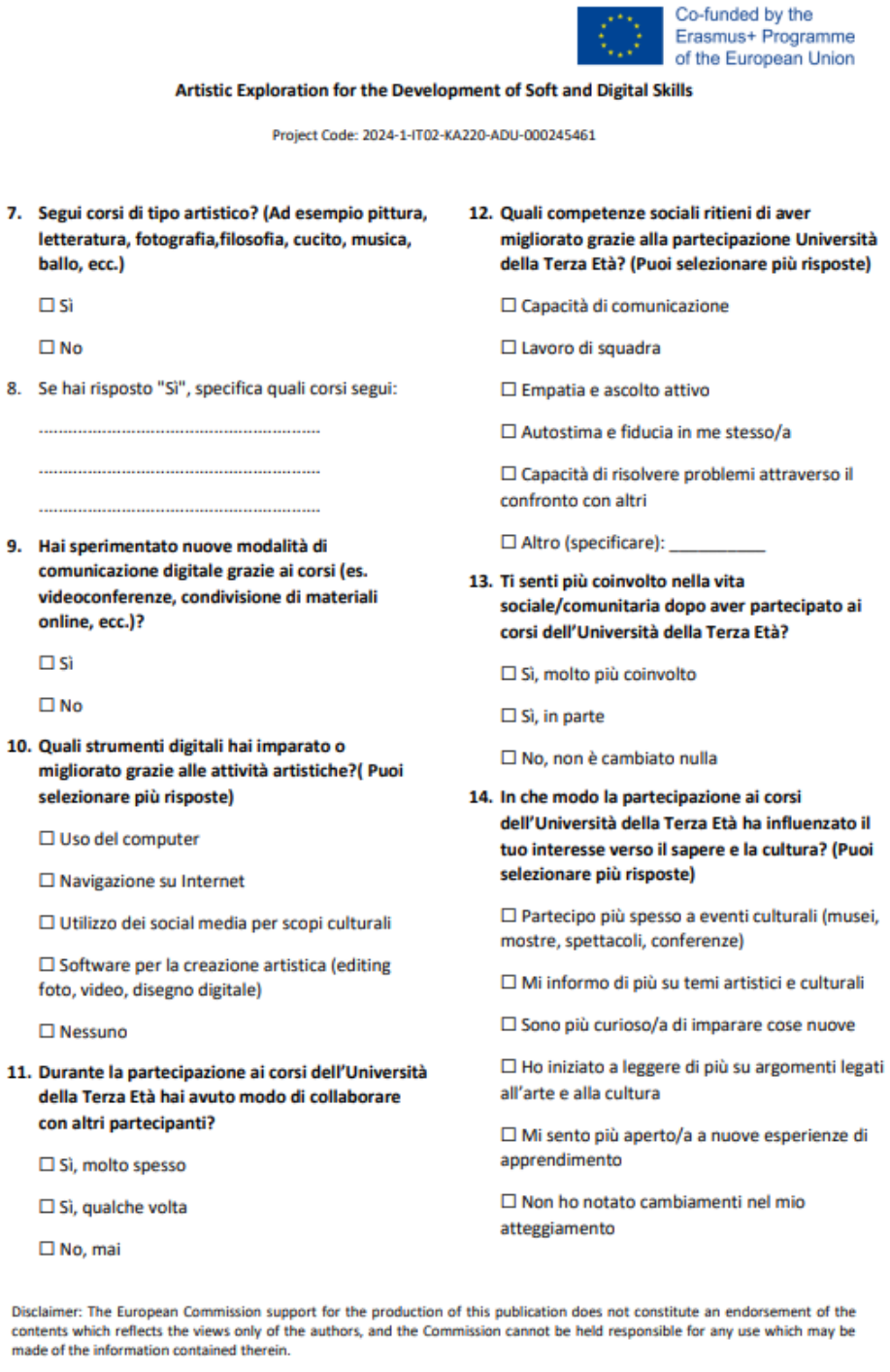

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7. **Segui corsi di tipo artistico? (Ad esempio pittura, letteratura, fotografia,filosofia, cucito, musica, ballo, ecc.)**

☐ Sì

☐ No

8. Se hai risposto "Sì", specifica quali corsi segui:

.....

.....

.....

9. **Hai sperimentato nuove modalità di comunicazione digitale grazie ai corsi (es. videoconferenze, condivisione di materiali online, ecc.)?**

☐ Sì

☐ No

10. **Quali strumenti digitali hai imparato o migliorato grazie alle attività artistiche?(Puoi selezionare più risposte)**

☐ Uso del computer

☐ Navigazione su Internet

☐ Utilizzo dei social media per scopi culturali

☐ Software per la creazione artistica (editing foto, video, disegno digitale)

☐ Nessuno

11. **Durante la partecipazione ai corsi dell'Università della Terza Età hai avuto modo di collaborare con altri partecipanti?**

☐ Sì, molto spesso

☐ Sì, qualche volta

☐ No, mai

12. **Quali competenze sociali ritieni di aver migliorato grazie alla partecipazione Università della Terza Età? (Puoi selezionare più risposte)**

☐ Capacità di comunicazione

☐ Lavoro di squadra

☐ Empatia e ascolto attivo

☐ Autostima e fiducia in me stesso/a

☐ Capacità di risolvere problemi attraverso il confronto con altri

☐ Altro (specificare): _____

13. **Ti senti più coinvolto nella vita sociale/comunitaria dopo aver partecipato ai corsi dell'Università della Terza Età?**

☐ Sì, molto più coinvolto

☐ Sì, in parte

☐ No, non è cambiato nulla

14. **In che modo la partecipazione ai corsi dell'Università della Terza Età ha influenzato il tuo interesse verso il sapere e la cultura? (Puoi selezionare più risposte)**

☐ Partecipo più spesso a eventi culturali (musei, mostre, spettacoli, conferenze)

☐ Mi informo di più su temi artistici e culturali

☐ Sono più curioso/a di imparare cose nuove

☐ Ho iniziato a leggere di più su argomenti legati all'arte e alla cultura

☐ Mi sento più aperto/a a nuove esperienze di apprendimento

☐ Non ho notato cambiamenti nel mio atteggiamento

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Figure 9: ARTSKILLS Questionnaire administered at UNITRE Fondi, page 2

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8 Appendix 2, Second Case Study: Educational Services in Museums — Evaluation and Standards

This chapter aims to provide an in-depth analysis of the work entitled "Educational Services in Museums: Standards and Evaluation," authored by Alessandra Intraversato and Stefano Scippo [30]. This case study was selected for its focus on educational activities within museums, particularly regarding the promotion of art and cultural heritage in a non-formal learning context.

The authors present a structured reflection that goes beyond the mere description of operational experiences, addressing with rigor the issue of evaluation—an area whose importance was already highlighted in previous chapters 3.3, along with the need for guidelines and standards to define such activities. The work offers a systematic investigation of the methods used to evaluate educational services, providing both a solid theoretical framework and concrete practical tools.

The volume "Educational Services in Museums: Standards and Evaluation" (2004) addresses, in a pioneering way, one of the most delicate and still highly relevant issues in the Italian museum landscape: the need to integrate effective educational services within museums and to develop rigorous evaluation tools to measure the impact of educational activities on the public. Although written over twenty years ago, the work remains highly relevant due to its precise methodology, international comparative perspective, and the authors' commitment to moving beyond theoretical reflection by proposing practical measurement tools.

The research, conducted at the Museums of the Imperial Fora – Trajan's Market in Rome, involved 369 students from seven upper secondary schools. The study had a dual objective: to verify the educational effectiveness of museum activities and to produce valid and replicable tools for the future evaluation of educational services.

8.1 The Challenge of Educational Quality in Museums

The first chapter presents a broad comparative overview. While in Anglo-Saxon countries—particularly in the United Kingdom—attention to educational evaluation in museums has been developing since the 1980s with tools such as the Registration Scheme and the Generic Learning Outcomes (GLOs), Italy has struggled to attribute central importance to educational services. The Italian approach, strongly tied to the protection of cultural heritage, has often regarded educational services as secondary to conservation, relegating them to a marginal role.

The first attempts to define minimum standards date back to the Ministerial Decree of May 10, 2001, which introduced the obligation for museums to establish an educational service. However, it was only with the Ministerial Decree of February 21, 2018, No. 113 that a further step forward was made, albeit with a still cautious approach: the decree merely establishes general requirements without mandating practices for compulsory monitoring and evaluation. Evaluation emerges in the text as the beating heart of the museum educational process: it is through evaluation that not only user satisfaction but, more importantly, the actual achievement of educational objectives is verified.

Thus, to evaluate means to pose critical questions: "To what extent has the museum experience changed visitors' knowledge, attitudes, and skills?" Without these analytical tools, educational services risk becoming a mere sequence of activities without real impact.

8.1.1 Minimum Standards for Museum Education: The Contribution of Ministerial Decree 113/2018

As early as 2004, the authors had clearly highlighted one of the major shortcomings of the Italian museum system: the absence of national standards regulating the educational activities of museums in a structured way. This gap, over the years, has begun to be filled through the introduction of more updated regulatory instruments. In particular, the Ministerial Decree of February 21, 2018, No. 113 represented an important step in recognizing the central role of educational activities in museums, although further improvements and refinements are still needed.

The DM 113/2018 is part of the broader process of establishing the National Museum System (Sistema Museale Nazionale, SMN) and stipulates that, in order to join the National Museum System, each museum must meet specific Uniform Levels of Quality (Livelli Uniformi di Qualità, LUQ). Joining the SMN is voluntary but contingent upon full compliance with these minimum requirements, which cover various functional areas, including educational activities.

Specifically, within Area 3: Communication and Public Relations, the decree requires that:

- Museums must implement educational and didactic activities aimed at a wide range of audiences (children, schools, adults, elderly, and people with special needs).
- Activities must be systematically and continuously planned, documented, and monitored, rather than carried out sporadically.
- Museums must employ internal staff or external collaborators with adequate skills to deliver high-quality educational activities.
- The quality of activities must be evaluated through the collection of participation data, feedback surveys, and the drafting of self-assessment reports.
- Educational programs must ensure accessibility and inclusion, both physical and cognitive, encouraging the active participation of all visitors.

However, although marking clear progress compared to the past, the decree still lacks detailed guidelines regarding:

- How educational activities should be concretely designed (e.g., workshops, thematic tours).
- Which educational methodologies should be adopted (e.g., storytelling, gamification, etc.).
- The specific competencies required of educators, limiting itself to stating that they must be "adequate" for the activities conducted.

In summary, DM 113/2018 represents a fundamental step of institutional awareness:

- It mandates that both public and private museums wishing to join the National Museum System must offer regular, accessible, and evaluable educational programs.
- It defines a minimum standard for the existence, quality, and monitoring of educational activities.
- It leaves flexibility in the choice of methodologies and teaching tools, assigning the project responsibility to the scientific direction of each museum.

Thus, although clear progress has been made compared to the situation denounced in 2004, the challenge of developing more articulated and shared models of educational design and evaluation remains open.

8.2 Objectives and Structure of the Evaluation

The approach adopted in the educational project is inspired by the methodology proposed by Hein, which emphasizes the need for full integration between instructional design and evaluation activities. According to this perspective, evaluation is not a separate or subsequent phase, but a structural element of the educational process, based on continuous collaboration between the museum team and evaluation experts.

Within this methodological framework, five key objectives were explicitly identified for the educational project:

1. Increase students' knowledge about the Forum and Trajan's Markets.

2. Improve their emotional and cognitive engagement with the archaeological site.
3. Strengthen their observation and interpretation skills concerning the visited spaces.
4. Foster positive attitudes toward cultural heritage.
5. Assess active participation and satisfaction with the experience.

For each objective, operational and behavioral hypotheses were defined to guide the construction of the assessment tools. The verification of these hypotheses was mainly based on research designs classified as quasi-experimental (Campbell, Cook, Peracchio, 1990). Although these designs allow for recording outcomes and confirming the achievement of project goals, they do not permit the establishment of a definitive causal relationship between participation in educational activities and student learning. A more rigorous causal verification would have required adopting classical experimental designs, involving randomized samples and comparable control groups. However, in this case, the educational project was not designed as a true experiment but rather as a monitored and evaluated educational experience involving a pre-assigned population, without the possibility of implementing a control group.

Once the objectives, research hypotheses, and research designs were defined, the monitoring variables were identified and classified using Stufflebeam's CIPP Model (1980). This model distinguishes variables into four main categories:

- **Context variables**: data relating to parents' educational backgrounds, the geographic origin of the schools (Rome or surrounding areas), student demographics, and certain cultural habits.
- **Input variables**: individual perceptions of archaeological and everyday spaces, prior knowledge about the Forum and Trajan's Markets, expectations regarding the educational event, and attitudes and opinions toward cultural heritage.
- **Process variables**: levels of active student participation during the first meeting and the quality of activated cognitive and perceptual processes.
- **Output variables**: post-experience perceptions of spaces, acquired knowledge, satisfaction with the covered topics, and final attitudes toward heritage.

8.2.1 Association between Variables and Data Collection Tools

Specific tools were employed to collect data corresponding to each type of variable:

- For context variables: pre-test questionnaire.
- For input variables: pre-test questionnaire.
- For process variables: observation grid.
- For output variables: final post-test questionnaire.

The evaluation tools were structured at multiple levels to collect both quantitative and qualitative data. Specifically, they included:

- Closed-ended questionnaires, administered both as pre-tests and post-tests, to measure knowledge and attitudes.
- Open-ended questions within the questionnaires, designed to collect students' comments, impressions, and personal reflections.
- Observation grids, used to record levels of participation and the activation of cognitive and perceptual processes during the activities.

- Analysis of students' products, such as drawings and personal elaborations, to assess more creative and spontaneous learning modalities.

The construction of the assessment tools included a preliminary try-out phase involving 121 students. This phase was crucial to refine the quality of the tools through a statistical analysis of the items based on indicators of ease, discriminative power, and point-biserial correlation. Thanks to this process, good content validity and high statistical reliability were achieved, ensuring that the tools were suitable to support a multidimensional evaluation of the educational intervention.

8.3 Results

The collected data reveal the following outcomes:

- A significant average increase in knowledge post-activity, with a mean score of 6.25 out of 10 in the final test.
- 66.2% of students achieved or exceeded a passing grade.
- The learning process proved to be more effective when student participation and engagement in the activities were higher.

However, several limitations emerged from the data analysis:

- Uneven distribution of scores among students.
- Certain thematic areas, such as spatial orientation and understanding the historical functions of the Fora, showed weaker learning outcomes.
- It was not possible to establish a definitive causal relationship between the educational activities and the improvement in knowledge, due to the absence of a structured control group.

8.4 Conclusions: Strengths, Limitations, and Areas for Improvement

In conclusion, the volume honestly acknowledges that it is not possible to establish a definitive causal relationship between the proposed educational experience and the observed results. Although an overall improvement in students' knowledge and attitudes was recorded, the absence of a structured control group prevents attributing the improvements solely to the educational intervention.

The main methodological limitations identified are:

- The lack of a control group, which would have allowed for the isolation of specific effects attributable to the educational activity versus external factors.
- The potential influence of external variables, such as prior school experiences and individual differences in student motivation.
- Heterogeneity in students' initial knowledge levels, which affected the final outcomes and their interpretation.

An additional complexity noted concerned performance differences between students from technical institutes and those from art institutes. Students from art institutes demonstrated greater observation skills and creative reworking abilities, while students from technical institutes showed more difficulty in approaching historical-artistic content. This finding suggests the importance of tailoring educational tools and pathways more carefully in future interventions to better align with participants' diverse characteristics, prior competencies, and cognitive styles.

Several positive aspects emerged from the project:

- The effectiveness of maieutic and active teaching techniques, which foster participatory learning and the autonomous construction of knowledge.
- The commitment to developing validated and replicable evaluation tools, such as questionnaires, observation grids, and analysis of students' products.
- The pioneering value of the experience, which offered, for the first time in the Italian context, a comprehensive reflection on the definition of evaluation standards applicable to museum educational services.

Regarding areas for improvement, the volume suggests:

- Future adoption of more rigorous experimental designs, including the use of control groups, to scientifically validate the effectiveness of educational activities.
- Development of more precise process indicators capable of closely monitoring student engagement and learning during educational experiences.
- Expansion of evaluation competencies within museum services, promoting a systematic and stable integration of evaluation into educational planning processes.

Ultimately, the analyzed work, through its rigorous methodology, attention to various levels of learning, and critical approach to evaluation, continues to offer valuable insights for enhancing the educational effectiveness of contemporary museums.

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