TROTULA AND THE MEDITERRANEAN DIET: AN EDUCATIONAL TOOLKIT FOR INCLUSIVE AND SUSTAINABLE LEARNING

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ABSTRACT
This paper analyses the pedagogical value of the activity book linked to the volume "Trotula e la dieta mediterranea. Piccoli segreti per crescere felici" (Trotula and the Mediterranean diet. Little secrets for growing up happy), created within the broader "Trotula" educational project. Inspired by the historical figure of Trotula de Ruggiero, the first woman physician of the 11th century, the project builds a bridge between past and future, combining cultural tradition and educational innovation. The activity book, designed for children aged 8 to 10, is a tool for Home Economics education across the life course, promoting the Mediterranean diet as a sustainable lifestyle. Its play-based and narrative activities go beyond nutrition, also addressing environmental protection, conviviality, psychophysical well-being, conscious household management, gender equality and social inclusion. The educational pathway is consistent with the Sustainable Development Goals of the 2030 Agenda (Goals 3, 4, 12, 13, 14) and integrates interdisciplinary approaches, active methods and analogue and digital tools. The Trotula project fits fully within the theoretical and methodological framework of contemporary Home Economics, proposing an educational model that encourages critical thinking, autonomy and a sense of responsibility towards oneself, others and the environment in young people.

KEYWORDS
Mediterranean diet; Home Economics education; Food education; Sustainability; Inclusion.

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Introduction

The contemporary educational landscape is shaped by rapid technological change, environmental crises, and growing sociocultural complexity, and education is increasingly expected to play a deliberate, reflective, and transformative role. These challenges call for educational models to be reconceived not merely as systems for transmitting knowledge, but as spaces in which meaning, agency, and collective responsibility can develop. As Ricoeur (1993) argues, ethics, understood as the aspiration towards "the good life, with and for others, within just institutions" (p. 202), should provide the foundation for educational action. From this perspective, education becomes an act of care that fosters autonomy, critical awareness, and informed decision-making while contributing to the development of more just, inclusive, and sustainable communities. Home Economics Education (Smith et al., 2010) is grounded in this perspective and is now understood as an interdisciplinary pedagogical field that promotes personal and social well-being by integrating nutrition, health, family relationships, resource management, sustainability, and citizenship. It is an educational approach intended to support individuals throughout the life course by equipping them to make informed, ethical, and healthy choices that safeguard individual, collective, and environmental well-being. As Pace et al. (2015) point out, Home Economics education also provides a particularly valuable context for addressing contemporary complexity through simple yet effective teaching strategies that promote cross-cutting competences and individual and collective empowerment. Its experiential focus on everyday life also facilitates the concrete, culturally situated introduction of sustainable values, lifestyles, and practices.

The Trotula educational project was developed inspired by these goals and principles for the Italian context where Home Economics is not offered as a curricular subject, as in other countries (Erjavšek & Kostanjevec, 2026). Nevertheless, the educational community is called to dedicate more attention to these fundamental aspects for holistic growth and sustainable development. This narrative, educational, and cultural initiative is inspired by the historical figure of Trotula de Ruggiero, an eleventh-century female physician associated with the Salerno Medical School. The project is a transmedia and transdisciplinary educational framework that combines the rediscovery of Mediterranean traditions with the educational potential of technology and storytelling. Trotula's symbolic world provides a basis for educational pathways focused on health, biodiversity,

gender identity, and care for living beings. These pathways use accessible digital and analogue activities designed particularly for primary-school children. Together, the tools support experiential, inclusive, and narrative-based teaching that engages diverse ways of knowing and responding and promotes meaningful learning in multicultural contexts (Pastore et al., 2024).

The Trotula project is grounded in a coherent system of values that brings together the heritage of the Mediterranean and the Salerno Medical School, the principles of educational ethics, and global sustainability goals. Slowness, conviviality, care, and balance, core values of the Mediterranean tradition, become key resources for constructing a pedagogy of responsibility that integrates personal, relational, and public dimensions (Cattanei, 1989). In this respect, the project is closely aligned with the United Nations 2030 Agenda and translates its strategic priorities into educational practices: quality education (Goal 4), gender equality (Goal 5), ending hunger and promoting healthy lifestyles (Goal 2), environmental sustainability (Goal 13), and responsible consumption (Goal 12). These goals are not treated as abstract concepts; instead, they are made tangible through symbolic, embodied, and narrative forms of education.

The pedagogical vision underpinning Trotula thus creates a meeting point between past and future and between the local and the global, framing global citizenship through everyday experience. The project is based on the view that education cannot be limited to the transmission of content; it must also become an act of care and a practice of relational justice in which educators and learners share meanings and values. The ethics of education takes the form of an aspiration towards the good life, with and for others (Ricoeur, 1993). It is grounded in responsibility towards future generations (Jonas, 1990) and in the capacity to direct individual action towards the common good. From this perspective, the school becomes an ethical laboratory in which learners can experience models of coexistence, solidarity, and active citizenship. Education is therefore understood not only as a fundamental human right, but also as an essential condition for building an equitable, informed, and participatory future.

The project seeks to make these goals understandable and actionable from primary school onwards through symbolic and practical forms of learning that foster critical awareness and a sense of global responsibility. More specifically, it offers a narrative and transdisciplinary educational pathway that translates the values of Mediterranean culture into educational practice through both analogue and digital tools.

This paper presents a conceptual and educational-design analysis of the toolkit developed within the Trotula project, with a particular focus on the activity book designed for primary-school children aged 8 to 10. It examines the intersection of educational storytelling, environmental education, and inclusive practice from a pedagogical perspective rooted in the Mediterranean context and aligned with the principles of the 2030 Agenda and Home Economics Education.

The paper does not report empirical outcomes. Instead, it examines the coherence between the toolkit's historical and cultural foundations, its transmedia structure, the design of its activities, and the planned evaluation framework. Its purpose is to clarify the project's educational rationale and its potential contribution as a design model, while distinguishing this conceptual contribution from claims of effectiveness that require future empirical investigation.

1. Who is Trotula de Ruggiero?

The Trotula educational project emerged within this conceptual framework and draws inspiration from the historical figure of Trotula de Ruggiero, a woman associated with the eleventh-century Salerno Medical School and an enduring symbol of women's medical knowledge and Mediterranean medicine. Traditionally believed to have been born into a noble Lombard family and to have lived and worked in Salerno, Trotula is regarded as one of the most prominent figures associated with this secular, multicultural centre of learning, often described as one of the earliest medical schools in medieval Europe. She was probably educated, and may also have taught, within this intellectually vibrant environment, where women and men contributed to the development and transmission of medical knowledge through observation, practical experience, and attention to patients' needs. Trotula has traditionally been credited with, or regarded as the inspiration for, influential medical treatises such as *De passionibus mulierum ante, in et post partum*, commonly known as the *Trotula maior*, which addresses women's health, and *De ornatu mulierum*, or *Trotula minor*, which focuses on cosmetics, bodily care, and well-being. The medical tradition associated with these works is characterised by a pragmatic and humane approach that emphasises prevention, women's dignity, and their physical and psychological well-being, while remaining relatively free of the moralising attitudes that often characterised medieval discussions of the female body. Trotula's historical identity and the authorship of the works attributed to her remain the subject of substantial historiographical debate. Some scholars have questioned whether she existed as a single historical individual or personally

authored the texts traditionally linked to her, whereas others have argued for the historical basis of the figure. Nevertheless, the extensive manuscript circulation of the *Trotula* corpus and references to Trotula in medieval European literature, from Rutebeuf to Chaucer, attest to the considerable and lasting influence of the medical tradition associated with her name (Green, 1996, 2001).

The Salerno Medical School was a centre of cultural and scientific innovation where other women, the *mulieres salernitanae*, also practised and where a shared and accessible body of knowledge developed. Its approach drew on Greek, Arabic, Latin, and Jewish traditions, making Salerno an intellectual and therapeutic crossroads of the Mediterranean.

The celebrated *Regimen Sanitatis Salernitanum*, a didactic poem composed between the eleventh and thirteenth centuries, is emblematic of this tradition. It was conceived as a health and hygiene manual for both physicians and the general population, enabling people to adopt healthy practices in everyday life. The text represents one of the earliest forms of public medical communication: a practical handbook that translates medical knowledge into simple, memorable, and widely applicable rules for preventive health and well-being. Among other recommendations, it advocates moderation, a balance between diet and rest, and attention to mental serenity and social relationships.

Its most famous aphorism, which remains highly relevant today, reads:

"*Si tibi deficiant medici, medici tibi fiant / haec tria: mens laeta, requies, moderata diaeta*." — "If physicians are unavailable to you, let these three things be your physicians: a joyful mind, rest, and a balanced diet" (Harrington, 1990).

This principle, which links health to quality of life, is central to the Salernitan pedagogical tradition and finds a contemporary echo in the Trotula educational project. The project seeks to promote a healthy, sustainable, and joyful way of life grounded in care, knowledge, and awareness. It is precisely this legacy of care, secular knowledge, and inclusion that the Trotula educational project seeks to rediscover and renew from a contemporary perspective.

2. Mediterranean culture as an educational paradigm

Far from being merely a geographical setting, the Mediterranean represents a cultural and pedagogical horizon rich in symbols, narratives, and shared forms of knowledge. Mediterranean identity, understood as a relational and intercultural way of inhabiting the world, is associated with values such as slowness, conviviality,

seasonality, and biodiversity (Pagano, 2019; UNESCO, 2017). The Mediterranean diet itself is not merely a set of dietary practices, but an educational system grounded in respect for time, nature, and others. In this sense, educating according to Mediterranean values means fostering care for oneself, others, and the environment through concrete and symbolic experiences rooted in local contexts.

On a map of the world, the Mediterranean is nothing more than a fissure in the Earth's crust, a narrow spindle stretching from Gibraltar to the Isthmus of Suez and the Red Sea (Braudel, 2018).

Yet the Mediterranean is much more than this, and certainly more than a sea: it is a crossroads of histories, civilisations, religions, and memories. It is a geography of culture and imagination that has long served as a site of encounter and conflict. Braudel (2018) offered an evocative and kaleidoscopic account of the *Mare Nostrum*. This layered history makes the Mediterranean a silent teacher, showing that identities are not monolithic but interwoven, and that cultures are shaped through encounter.

Matvejević's *Mediterranean: A Cultural Landscape* (1987) offers a similarly rigorous yet poetic "philology of the sea," from which a "sea of memories" emerges. The Mediterranean thus becomes a living archive of stories, myths, songs, and everyday practices. This vision is closely connected to pedagogy: educating according to Mediterranean values means educating for plurality, coexistence, and shared memory.

Many developments that underpin contemporary civilisation emerged along its shores, including alphabetic writing, philosophical thought, monotheistic religions, Roman law, secular medicine, and Arabic translations of Greek works. Each people that inhabited this sea left traces, not as static remnants but as elements of new cultural syntheses. The meaning of Mediterranean education can be situated within this web of relationships: not insularity, but cultural intermingling; not fear of the other, but mutual recognition.

Greek culture bequeathed one of its most fertile legacies to the Mediterranean world: *paideia*. This concept referred not merely to instruction, but to a comprehensive educational project that brought together body, mind, and spirit and prepared individuals to participate in community life. *Paideia* encompassed harmony, the pursuit of truth and beauty, and preparation for public life and the common good. It may therefore be understood as the first Mediterranean educational paradigm: a form of holistic education grounded in dialogue and ethical growth.

This vision has resonated across the centuries. Although the Salerno Medical School emerged in a different and later context, it echoed this ideal by combining theory and practice, science and life. Trotula may likewise be interpreted as an embodiment of *paideia* from a woman's perspective: she educated through science, cared for others by transmitting knowledge, and brought different forms of knowledge into dialogue for the benefit of the community.

Mediterranean pedagogy, as defined by Pagano (2019), is rooted precisely in this longue durée:

"To propose a Mediterranean pedagogy, therefore encompassing the values that distinguish the civilization shaped by its sea, is the endeavour of an educational culture that paradigmatically presents value models based on peaceful coexistence among peoples of different ethnicities and religions, united by their being inhabitants of the shores of a sea that gave rise to the dream of journeys and travelling beyond the Pillars of Hercules. Mediterranean humanity is made up of people who love discovery, who wish to know the unknown, who love building cities, who value knowledge and action, and who unite rationality and spirituality. Such individuals require a pedagogy capable of enhancing identity within difference, individuality within community, the tragic dimension of existence alongside the beauty of living, and *arché* together with *telos*" (Pagano, 2019, p. 224, authors' translation).

The Mediterranean thus emerges not as a peripheral region, but as a part of the world with distinctive characteristics and the capacity to generate educational models. This paradigm is nourished by Greek legacies, Roman civilisation, Arab-Islamic science, the intellectual vitality of the Frederickian period, and the modern influences of French rationality and Iberian spirituality. It is a situated pedagogy sustained by collective memory, popular narratives, and everyday life.

It is also a pedagogy of otherness, teaching people to regard others as a resource rather than a threat and grounded in the Mediterranean's own history of migration, exile, and return. As Halbwachs (1987) emphasised, collective memory always arises within a group and a social context. In Mediterranean communities, this memory takes shape in proverbs, songs, rituals, popular festivals, and food practices, all of which serve as informal educational resources.

Folklore, too often relegated to the status of a "minor culture," is instead a living force in shaping collective consciousness. Mediterranean education therefore also takes place beyond school: in public squares, markets, oral narratives, recipes

passed down across generations, and everyday gestures that teach people how to live together.

Conviviality is perhaps its most distinctive feature. The Mediterranean diet, recognised by UNESCO as intangible cultural heritage, is not merely a nutritional model, but an ethos grounded in moderation, balance, slowness, and respect for the cycles of nature.

Reflecting on Mediterranean education today also means recognising its contemporary relevance. Mediterranean contexts, shaped by migration and cultural plurality, require educational models that address diversity as a structural dimension—not as an obstacle, but as a resource. With its heritage of plurality and memory, Mediterranean education can therefore provide a framework for interpreting and transforming the present.

Within this framework, the Salerno Medical School is a paradigmatic institution. Secular, intercultural, and open, it was a place where Greek, Latin, Arabic, and Jewish traditions met and interacted. Science was transmitted as a common good, and teaching itself fostered coexistence.

Within this tradition, Trotula de Ruggiero appears as a female physician who combined scientific rigour with human sensitivity. Her work, ranging from gynaecology and childcare to cosmetics, reveals a body of knowledge attentive to women's bodies and dignity and open to shared transmission. Trotula embodies Mediterranean values: she is portrayed as a woman open to dialogue and exchange who educates through science and makes knowledge accessible to others.

Retelling Trotula's story today through fairy tales, theatre, workshops, and digital media revitalises this legacy. It recovers the memory of a neglected figure and transforms it into a pedagogical resource for the present. From this perspective, the Trotula project becomes an act of Mediterranean education: an experience that unites memory and innovation and fosters care, resilience, and pluralism through inclusive and transmedia approaches.

The Mediterranean can therefore become a universal inclusive educational paradigm. It offers an education grounded in plurality, memory, conviviality, and openness to others, and it teaches learners to navigate complexity without fearing difference. This is what Trotula and the Salerno Medical School continue to offer today: the idea that education should not close people off, but open them to dialogue, discovery, and new journeys.

3. Transmediality and the tools of the Trotula project

Within the Trotula project, transmediality is understood not as the mere multiplication of communication channels, but as a narrative and educational ecosystem that transforms knowledge into experience, memory into storytelling, and participation into learning. According to Jenkins (2006), transmedia storytelling involves expanding a story across multiple media platforms while preserving narrative coherence and encouraging active audience participation. This approach not only enriches the user experience but also engages cognitive and emotional processes that support deeper and more meaningful learning.

In educational contexts, transmediality functions as an inclusive and experiential teaching strategy that engages the mind, body, and emotions. Each medium has distinctive characteristics, but their combined use creates a comprehensive, accessible, and engaging educational experience. As Scolari (2013) points out, students in digital culture are no longer merely passive recipients, but co-producers of meaning and active participants in the educational process.

The Trotula project adopts this approach: children are not simply listeners to a story, but authors, performers, content creators, and active contributors to a shared body of knowledge. The project's narrative structure begins with the fairy tale, an archetypal and accessible genre that conveys complex values and ideas (Bruner, 1996). The illustrated story *Trotula and the Enchanted Garden* stimulates the imagination and supports visual learning (Campagnaro et al., 2013). It is also available in translation and audiobook formats, and an IN-book edition supported by Augmentative and Alternative Communication (AAC) is forthcoming to include readers with complex communication needs (Galdieri & Pastore, 2022).

The narrative framework is extended through podcasts, read-aloud sessions, theatrical performances, musicals, artistic and scientific workshops, outdoor education activities, and learning environments designed according to Malaguzzi's pedagogical vision (2010), which regards the environment as the "third teacher." Social media are also used as platforms for educational interaction, creating links between schools, families, and local communities (Jenkins, 2006). An educational video game and the Trotula AI Ambassador provide immersive, interactive, and personalised experiences aligned with contemporary digital pedagogy (Prensky, 2001).

Every medium and environment, whether physical or digital, is conceived as an affinity space (Gee & Rivoltella, 2013): a context for informal and participatory

learning in which individuals learn through passion, play, and relationships. The Trotula project thus seeks to create a network of diverse, interconnected, and accessible experiences. This network is intended to make learning a cultural adventure and a process of shared growth while promoting personal empowerment, relational well-being, and social participation.

In keeping with the principles of learning by doing (Dewey, 1938), this pedagogical approach is grounded in concrete action, exploration, and experimentation as primary means of learning and participation. Its conception of empowerment extends beyond academic competences to the wider educational community, with the aim of supporting students' autonomy, teachers' motivation, and families' shared responsibility.

4. The educational pathway: tools and activities for promoting Mediterranean culture

Recent WHO data indicate high levels of childhood overweight and obesity (WHO, 2022). The Childhood Obesity Surveillance Initiative (COSI) reports that, in Europe, approximately one child in four is overweight and one in ten is living with obesity. Rates are particularly high in Southern Europe, where almost one child in five is affected by obesity (WHO Regional Office for Europe, 2022). Only 46% of children consume fruit every day, and fewer than 5% meet the recommended intake of five daily portions of fruit and vegetables. At the same time, more than 40% consume sweets every day, while 29% drink sugar-sweetened beverages (WHO Europe, 2022). These trends underscore the need for early educational interventions and healthier lifestyles. The Trotula educational project responds to this context by presenting the Mediterranean diet not merely as a dietary regimen, but as a way of life grounded in balance, seasonality, conviviality, and care.

The part of the Trotula project devoted to Mediterranean identity takes the form of a narrative and immersive educational pathway that combines analogue and digital tools, symbolic environments, and physical learning spaces. Each component forms an integral part of an educational ecosystem oriented towards inclusion, sustainability, and connection to local culture.

At the heart of this pathway is the illustrated book *Trotula and the Mediterranean Diet*, which is divided into two sections. The first is narrative and presents a fairy tale that introduces the character and her values through evocative and archetypal

language. The second is informational and introduces food and environmental pyramids while addressing seasonality, food waste, and the trade routes of Mediterranean cuisine. The book thus mediates between children's experiences and the wider world, and between memory and change.

The story begins in Cilento (South of Italy, province of Salerno), a region that exemplifies Mediterranean natural and cultural heritage and is widely associated with the Mediterranean diet and local biodiversity. Here, Trotula witnesses loggerhead sea turtle (*Caretta caretta*) eggs hatching, which launches an exploration of the area's distinctive features. The narrative includes encounters with historical figures such as the philosopher Parmenides and the physician Ancel Keys, as well as the voices of local residents, who discuss biodiversity, seasonality, conviviality, and respect for natural rhythms (Moro, 2016). The fairy tale concludes with a future-oriented vision in which a new generation of informed and responsible guardians protects the Mediterranean's tangible and intangible heritage. Overall, the story uses gentle yet powerful storytelling to cultivate emotional engagement with sustainability.

The main volume is accompanied by an illustrated activity book designed as a hands-on workbook and workshop resource. It invites children to explore the concepts introduced in the story in creative and multisensory ways. Activities range from writing and dramatisation to imaginative cooking activities and ecological reflection, supporting each pupil's expressive and narrative abilities. The workbook is not merely a teaching aid, but a space in which learners individually and collectively reinterpret ideas and connect knowledge with lived experience.

One of the most evocative applications of the project's methodology is the Trotula Playground in Pioppi, a Mediterranean-inspired play area that translates the project's values into spatial form. Here, play becomes embodied storytelling, while the space itself functions as a "third teacher" (Malaguzzi, 2010). Every feature of the playground incorporates symbols, shapes, colours, and materials characteristic of Mediterranean culture. Children can explore, play, and learn through their bodies and senses, in a manner consistent with experiential pedagogy.

The pathway is complemented by workshop activities that promote active, environmentally oriented learning, including identifying wild plants, creating vegetable gardens, preparing personal herbaria, extracting natural pigments, and engaging in artistic experiences inspired by nature. A guided visit to the Living Museum of the Mediterranean Diet, led by science educators, is designed to

connect classroom learning with the local environment and culminates in the symbolic award of a “Defender of Biodiversity” certificate.

Another key component is the Children’s Embassy of the Mediterranean in Pollica. It has a dual structure: an immersive section in which the book *Trotula and the Mediterranean Diet* is brought to life within a narrative and symbolic environment, and a workshop and diplomatic section in which children participate in educational activities, produce materials, share stories, and engage with one another as young ambassadors for sustainability. The Embassy actively promotes conviviality, environmental sustainability, the protection of rights, and educational diplomacy across Mediterranean communities.

The project’s digital component includes the Trotula AI Ambassador, an interactive digital version of the main character. Developed using artificial intelligence tools, the avatar guides students through personalised learning pathways: it tells stories, leads activities, answers questions, and encourages reflection. Fully compatible with classroom interactive whiteboards, the digital Trotula serves as a narrative tutor, a mediator of educational content, and a supportive, dialogic presence in the learning process (Pastore & Pace, 2026).

4.1 Focus on the activity book

The Trotula activity book forms the workshop-based core of the *Trotula and the Mediterranean Diet* toolkit. Designed for children aged 8 to 10, the workbook is an experiential educational resource that uses playful learning activities to help young learners explore Mediterranean culture, environmental sustainability, and personal well-being.

The workbook is organised around four main themes: identity and storytelling, food education, environmental education, and relational and physical well-being. These areas are consistent with the principal domains of Home Economics Education (Pace et al., 2015). Each section combines text, images, games, colouring activities, quizzes, and guided reflection, drawing on the principles of learning by doing (Dewey, 1938) and inclusive education. The activities are designed to engage multiple forms of intelligence (Gardner, 2006), with particular attention to the affective, relational, and sensory dimensions of learning.

The workbook is intended for use in both school and family settings, thereby strengthening links among schools, homes, and local communities. The introductory section, “Hello, Trotula,” invites children to identify with the main

character and reflect on their own identity and future aspirations. Through autobiographical writing exercises, games, and visual storytelling, it supports self-expression and reflection on personal memories, laying the foundations for narrative-based learning grounded in experience.

The sections devoted to the Mediterranean diet (pp. 11–21) and the environment (pp. 22–26) offer an integrated approach to food literacy (Silva, 2023) and sustainability. The activities invite children to recognise healthy foods and seasonal produce, consider ways of preventing food waste, and reflect on the environmental impact of everyday choices. Food and environmental pyramids, interactive stickers, crosswords, and matching games translate into practice Goals 2 (Zero Hunger), 3 (Good Health and Well-being), 12 (Responsible Consumption and Production), and 13 (Climate Action) of the 2030 Agenda.

A further section, "Conviviality and Well-being" (pp. 31–38), explores the relational and emotional dimensions of living well. Creative exercises, guided reflections, symbolic play scenarios, and worksheets focus on sharing meals, friendship, equitable family roles, and physical and psychological well-being. This section embodies the principles of Home Economics by promoting holistic well-being and the development of life skills. It also promotes awareness in relation to the previously mentioned sustainable development goals such as gender equality.

The concluding section includes a final assessment and the award of a symbolic Mediterranean Diet Ambassador certificate, encouraging children to reflect on what they have learned and recognise the value of personal commitment. This gamified approach, which includes formal recognition and is consistent with motivational methodologies (Gee, 2005), is intended to support self-efficacy and foster a sense of belonging within the Mediterranean educational community.

The workbook was developed in collaboration with two students from the University of Bonn, Céline Coenen and Celina Küppers, under the supervision of Professor Erika Marie Pace, as part of an international mobility project. The illustrated book *Trotula and the Mediterranean Diet* was also translated into American English with support from Duquesne University in the United States. A German version is being prepared in collaboration with the academic team in Bonn. In this sense, the Trotula activity book is not merely a collection of activities, but a narrative-based laboratory for global citizenship. Through simple, multisensory, and accessible forms of communication, its design invites children to engage with an education grounded in care, responsibility, inclusion, and sustainability. The workbook provides an example of how contemporary Home Economics Education

can draw on a historical figure while embedding the values of the 2030 Agenda in everyday life in a transversal manner across subject curricula.

5. Conceptual and educational-design synthesis

Taken together, the components described above show how the project connects elements already developed throughout the manuscript. Trotula and the Salerno Medical School provide the historical and narrative frame; Mediterranean culture supplies the ethical themes of care, conviviality, balance, plurality, and responsibility; Home Economics Education relates these themes to everyday choices and well-being; and the transmedia structure extends the educational proposal across stories, activities, physical environments, and digital tools. This synthesis constitutes the project's educational-design rationale.

The activity book is the component in which these elements are translated most directly into educational practice. Its sequence moves from identity and storytelling to food literacy, environmental awareness, relational well-being, and reflection on personal commitment. Conceptually, this progression links knowledge with action and individual learning with family, community, and environmental contexts. Inclusion is treated not as a separate component but as a design principle expressed through varied modes of participation, multisensory activities, accessible formats, and links among schools, families, and local communities.

At this stage, the project's contribution is conceptual and design-based. The manuscript can examine the coherence of its aims, content, and proposed activities, but it cannot establish their educational effectiveness. Claims concerning learner engagement, learning, behavioural change, experienced accessibility, or transferability must remain provisional until the planned evaluation has been completed. This distinction clarifies both the contribution of the present paper and the questions that future empirical work must address.

6. Planned evaluation framework

The implementation of the Trotula and the Mediterranean Diet educational project began with an initial phase focused intensively on developing, producing, and disseminating teaching and narrative materials, as well as establishing a local and international network of stakeholders. This phase required substantial investment in project design, the co-creation of educational tools, teacher training, and the

logistical organisation of transmedia activities. Because of these operational demands, systematic empirical data collection on the project's implementation in schools has not yet been possible.

A process evaluation is planned as the next phase. It will use a qualitative approach suited to exploring educational processes in their experiential, relational, and emotional dimensions. In line with the pedagogical principles underpinning the intervention, the proposed data-collection methods include participant observation during classroom and workshop activities; narrative and semi-structured interviews with teachers and pupils; and analysis of student-produced materials, such as visual and written work, audiovisual materials, and digital and narrative artefacts.

The evaluation will explore pupil engagement, the appropriateness of the proposed tools, the accessibility and inclusiveness of the narrative language, and possible changes in behaviours, representations, and cross-cutting competences. The data will be interpreted through a phenomenological-narrative approach (Batini & Del Sarto, 2005) designed to capture the plurality of perspectives, the situated nature of the educational experience, and the processes through which participants attribute meaning to that experience.

From this perspective, evaluation will not be treated solely as a means of measuring outcomes; rather, it will serve as a reflective practice capable of capturing and representing the complexity of the educational dynamics generated by the project. The proposed methodology comprises four components:

1. Participant observation in participating classes, with narrative and descriptive field notes on behaviours, interactions, and learning dynamics.

2. Focus groups with teachers and parents to explore their perceptions of the project, any changes observed in children, and its potential for inclusion.

3. Qualitative analysis of student work, such as drawings, written texts, and completed workbook activities, to explore processes of internalisation, creative reinterpretation, and life-skills development.

4. Narrative self-assessment tools for students, appropriately adapted to their age and communication skills, to foster reflective expression and awareness of their own learning.

The methodological design draws on the principles of qualitative research (Mortari & Ghirotto, 2019) and narrative documentation as a reflective and transformative practice (Schön, 1983; Striano, 2006). The evaluation will not simply measure results; it will also seek to understand the meanings participants attach to the processes implemented, with a focus on the relational, symbolic, and transformative dimensions of the educational experience. The evaluation phase is therefore intended to refine the model, assess its educational potential, and systematically document its implementation and participants' experiences. The aim is to develop an authentic form of evaluation that is itself an integral part of the educational process and that promotes awareness, learning, and continuous improvement.

Conclusion

The *Trotula and the Mediterranean Diet* educational project offers a distinctive pedagogical design that combines cultural tradition, sustainability, and inclusion through a transdisciplinary and transmedia perspective. Within this framework, Trotula de Ruggiero serves a symbolic and narrative function that supports education centred on care, well-being, and collective responsibility, while positioning Mediterranean cultural heritage as a contemporary and accessible educational resource.

The conceptual analysis of the toolkit, particularly the activity book, shows how experiential and multisensory teaching tools can be organised around meaningful learning, active participation, and the development of cross-cutting competences (OECD, 2018) in accordance with the goals of the 2030 Agenda. The project also illustrates how Home Economics Education can provide a framework for addressing contemporary challenges through active citizenship and sustainable lifestyles beginning in childhood.

From this perspective, the Mediterranean diet is presented not merely as a dietary model, but as a pedagogy of conviviality (Xodo, 2021), slowness, care, and balance. The project's transmedia dimension broadens the settings and modes through which learning is proposed, accommodates multiple forms of intelligence, and seeks to improve accessibility and participation across the educational community. The integration of analogue tools, immersive environments, digital technologies, and narrative practices is designed to connect schools, families, and local communities within a shared educational process.

Because empirical data are not yet available, the present paper does not make claims about the toolkit's effectiveness or impact. Its contribution lies in articulating a coherent educational-design framework that links historical and cultural heritage,

Home Economics Education, sustainability, inclusion, and transmedia learning. The planned qualitative evaluation will provide the basis for examining how this framework operates in practice, including its relationship to learning processes, life skills, and children's everyday behaviours.

At this stage, Trotula can therefore be understood as a conceptually grounded example of narrative and sustainability-oriented education in which memory, local heritage, and innovation are brought together to support the development of informed and responsible citizenship.

References

Bayon, H. P. (1940). *Trotula e le dame di Salerno: un contributo alla conoscenza della transizione tra la fisica antica e quella medievale*. Cambridge: St. Catharine's College.

Batini, F., & Del Sarto, G. (2005). *Narrazioni di narrazioni. Orientamento narrativo e progetto di vita* (Vol. 1, pp. 1-130). Erickson.

Beccegato, L. S. (Ed.). (1989). *Il bisogno di valori*. Brescia: La Scuola.

Braudel, F. (2018). *Il Mediterraneo. Lo spazio, la storia, gli uomini, le tradizioni*. Milano: Bompiani.

Bruner, J. (1996). *The culture of education*. Cambridge, MA: Harvard University Press.

Campagnaro, M., & Dallari, M. (2013). *Incanto e racconto nel labirinto delle figure: Albi illustrati e relazione educativa*. Trento: Erickson.

Cattanei, G. (1989). Cultura dei bisogni, cultura dei valori. In L. S. Beccegato (Ed.), *Il bisogno di valori* (pp. 11–51). Brescia: La Scuola.

Dewey, J. (1938). *Experience and education*. New York: Macmillan.

Gardner, H. (2006). *Multiple Intelligences: New Horizons. In Theory and Practice*. New York: Basic Books.

Gee, J. P. (2005). *Situated language and learning: A critique of traditional schooling*. New York: Routledge.

Gee, J. P., & Rivoltella, P. C. (2013). *Come un videogioco: insegnare e apprendere nella scuola digitale*. Milano: Raffaello Cortina.

Green, M. H. (1996). *The Development of the Trotula*. *Revue d'Histoire des Textes*, 26, 119–203.

Green, M. H. (2001). *The Trotula: A Medieval Compendium of Women's Medicine*. Philadelphia: University of Pennsylvania Press.

Halbwachs, M. (1987). *La memoria collettiva*. Milano: Unicopli. (Originariamente pubblicato nel 1950).

Harrington, J. (1990, November). The School of Salernum, *Regimen Sanitatis Salernitanum*. In *Allergy and Asthma Proceedings* (Vol. 11, No. 6, p. 319). OceanSide Publications.

Jenkins, H. (2006). *Convergence culture: Where old and new media collide*. New York: New York University Press.

Jonas, H. (1990). Il principio responsabilità. Un'etica per la civiltà tecnologica. Torino: Einaudi. (Originariamente pubblicato nel 1979)jenk

Malaguzzi, L. (2010). *I cento linguaggi dei bambini*. Bergamo: Edizioni Junior.

Matvejević, P. (1987). *Breviario mediterraneo*. Milano: Garzanti.

Moro, E. (2016). The Mediterranean diet from Ancel Keys to the UNESCO cultural heritage. A pattern of sustainable development between myth and reality. *Procedia-Social and Behavioral Sciences*, *223*, 655-661.

Mortari, L., & Ghirotto, L. (2019). *Metodi per la ricerca educativa* (pp. 7-291). Carocci.

OECD. (s.d.). *PISA 2018 Global Competence*. Organisation for Economic Co-operation and Development. https://www.oecd.org/en/topics/sub-issues/global-competence/pisa-2018-global-competence.html

Organizzazione Mondiale della Sanità. (2022). *World mental health report: Transforming mental health for all*. https://www.who.int/

Pace, E. M., Aiello, P., Piscopo, S., & Sibilio, M. (2015). Applying the theory of simplexity in home economics education for the acquisition of transversal competencies to face complexity. *International Journal of Learning, Teaching and Educational Research, 11*(2).

Pagano, R. (2019). *Pedagogia mediterranea*. Brescia: Scholé.

Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon, 9*(5), 1–6. https://doi.org/10.1108/10748120110424816

Ricoeur, P. (1993). *Sé come un altro* (Vol. 325). Editoriale Jaca Book.

Scolari, C. A. (2013). *Narrativas transmedia*. Bilbao: Ediciones Deusto.

Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. New York, NY: Basic Books.

Silva, P. (2023). Food and nutrition literacy: exploring the divide between research and practice. *Foods*, *12*(14), 2751.

Smith, G., & de Zwart, M. L. (2010). A contextual study of the subject and Home Economics teacher education. *Teacher Inquirer*.

Striano, M. (2006). La pratica riflessiva nei contesti educativi e formativi. In *Progetti di vita come progetti di formazione* (Vol. 66, pp. 35-50). ETS.

UNESCO. (2017). *Education for Sustainable Development Goals: Learning objectives*. Paris: UNESCO Publishing.

United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development*. United Nations. https://sdgs.un.org/2030agenda

World Health Organization. (2022). *WHO European regional obesity report 2022*. World Health Organization. Regional Office for Europe.

World Health Organization Regional Office for Europe. (2022). *Report of the Regional Director: The work of WHO Regional Office for Europe in 2021–2022*. Copenhagen: WHO Regional Office for Europe. Retrieved from https://iris.who.int/server/api/core/bitstreams/d4e68c96-ce5c-41d0-b5a3-abda871a0468/content

Xodo, C. (2021). La pedagogia della convivialità di Mario Ferracuti. *PAMPAEDIA-BOLLETTINO As. Pe. I*, (191), 015-026.