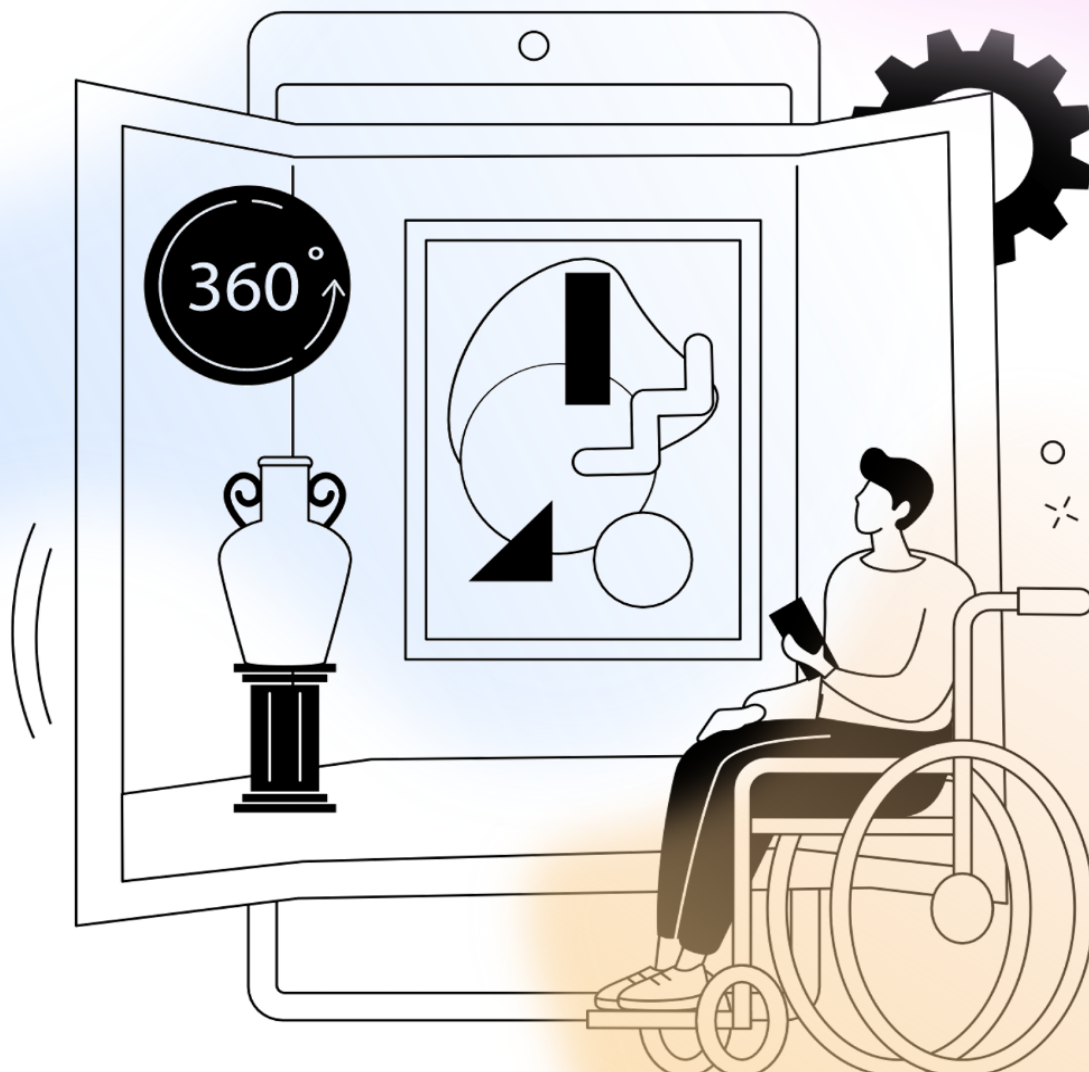


Inclusive Memory

INCLUSIVE MUSEUMS FOR WELL-BEING AND HEALTH THROUGH THE CREATION OF A NEW SHARED MEMORY

PR1.A2

Investigation on inclusive and customized
didactic and teaching practices for people
with health problems



Inclusive Memory

PR1.A2 – Investigation on inclusive and customized didactic and teaching practices for people with health problems

Results 1 Activity two	
Title	
Delivery	July 2022
Leader /Co-Leader	University of Modena and Reggio Emilia and Universidad Abierta
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Introduction

1. Goals and objectives

The document *Investigation on inclusive and customized didactic and teaching practices for people with health problems* aims at presenting the research results conducted within PRI activities in order to define the most effective teaching and learning methodologies and strategies for people with protected characteristics (disability in particular).

These methodologies and learning strategies will provide the theoretical basis on which the pilot courses to train future museum professionals, social care givers, school teachers and healthcare personnel (PR3) will be implemented.

Taking into consideration these characteristics, attention is particularly drawn to the development of key competences for future museum professionals, social care givers, school teachers and healthcare personnel.

The main objective of this desk research is to identify a conceptual framework of didactic activities in which transverse and professional competences and social inclusion can be promoted, in a way that underscores museums as spaces for health and wellbeing promotion. ***The desk research is conceived in an interdisciplinary manner, drawing upon the arts to make connections to other curricular areas such as language arts, civic education, global citizenship, and even science.***

2. Partners involved in the activity

The Inclusive Memory partners involved in the design and creation of the *Investigation on inclusive and customized didactic and teaching practices for people with health problems* are the following:

- University of Modena and Reggio Emilia, leader of the activity;
- Universidade Aberta, co-leader of the activity;
- Universidad Nacional de Educación a Distancia;
- Haskoli Islands;
- Zètema Progetto Cultura;
- Inter Alia;
- Institut Català de la Salut.

3. Structure of the document

This document includes:

- Investigation on inclusive and customized didactic and teaching practices for people with health problems: main results of the classified by geographical area;
- Discussion on the investigation results.

Investigation on inclusive and customized didactic and teaching practices for people with health problems

1. Methodology

From June to July 2022, the first indications for the realisation of the *Investigation on inclusive and customized didactic and teaching practices for people with health problems* were given to the partners.

All partners had to select papers from PR1.A1 focused on museum users with disability characteristics; then, they had to identify Teaching/learning methodologies/strategies used and Teaching/learning tools described in the selected papers. At the end of the activity, partners were asked to identify which transverse and professional skills are pivotal for future museum professionals.

A devoted form was given to all partners in order to realise the research activity, as described in the following table:

Partner institution	
What case studies have you selected that involve users with health problems?	
What methodologies, strategies, and teaching tools have shown to be effective?	
What soft and professional skills should museum professionals, social care givers, school teachers and/or healthcare personnel have in order to replicate the experience described in the paper/s?	

Table 1 – Form to be filled by the partners in order to realise PR1.A2

Each partner has been assigned to a specific European Geographic area, as described in PR1.A1 report.

After having filled in the form, UNIMORE, as leader of the activity, put together all the research results and realised the present document, identifying the main results of the *Investigation on inclusive and customized didactic and teaching practices for people with health problems*, as summarized in the next chapter.

2. Results

2.1 Geographic area no. 1 (Spain – except Catalonia, Germany, Denmark, Austria)

Partner institution	UNED
What case studies have you selected that involve users with health problems?	<p>Belver, Manuel H.; Ullán, Ana M.; Avila, Noemi; Moreno, Carmen; Hernández, Clara; (2018) Art museums as a source of well-being for people with dementia: An experience in the Prado Museum. <i>Arts & Health: An International Journal of Research, Policy and Practice</i>, Vol 10(3), Oct, 2018 pp. 213-226. Publisher: Taylor & Francis</p> <p>Artistic education activities for people with dementia based on visits to the Prado Museum.</p>
What methodologies, strategies, and teaching tools have shown to be effective?	<ul style="list-style-type: none"> • The development of the conversations about the works did not pose any particular difficulty. • Cordial and relaxed climate of the experience and close relations during the visit to the museum with a very personalized communication between participants and the AEs. • Expressed satisfaction with the activity. The participants showed a relaxed and satisfactory mood while performing the activity. • During the visit itself, whereas mobility or sensory limitations (especially auditory and visual) could condition the development of the activity, their cognitive problems seemed entirely unrelated to the experience in the museum. • Satisfaction with the activities. They seemed to enjoy the art tasks and especially the results obtained with collage techniques. • The tasks of the programme easily promoted social exchanges focused on autobiographical recall. • Supportive attitude toward companions was observed. • Humour with which the participants' situations were treated was also observed. • Reinforcement of feelings of capacity. • The artist folders stimulated their recall of the Works of the Prado Museum (the title of the painting, the name of the painter, etc.), but, above all, seeing their own creations signed with their name was pleasantly surprising and often gave rise to comments reflecting the positive experience of re-encountering the outcome of their work and the satisfaction of having been able to create those works
What soft and professional skills should museum	The role of mediation performed by educators is very important since they are responsible for establishing the link between the

<p>professionals, social care givers, school teachers and/or healthcare personnel have in order to replicate the experience described in the paper/s?</p>	<p>Museum and the public. They must be reflective and encourage the creation of knowledge of new discourses where historians participate. implementing and evaluating programs.</p> <p>The group of educators must have qualities such as patience, kindness, creativity, flexibility and a great sense of humour to impart the visits, since they are not limited to explaining the Museum's collections. The educator starts and maintains the conversation while providing information about the work art at appropriate times; knows how to spin the comments made in the group conversation and weave it properly with the different answers and opinions. They use their knowledge to provide new perspectives on the works and also to validate the responses and ideas of participants.</p>
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2.2 Geographic area no. 2 (Portugal, France, Belgium, Netherlands)

Partner institution	UAb
What case studies have you selected that involve users with health problems?	<p>Martins, P. (2015). MUSEUS (IN)CAPACITANTES Deficiência, Acessibilidades e Inclusão em Museus de Arte [(IN)ENABLING MUSEUMS Disability, Accessibilities and Inclusion in Art Museums] PhD thesis on Art - speciality on Art Sciences. University of Lisbon - Faculty of Arts. http://hdl.handle.net/10451/15959</p> <p>The participants are people with different types of disabilities (intellectual, visual and hearing).</p>
What methodologies, strategies, and teaching tools have shown to be effective?	<ul style="list-style-type: none"> - providing an experience of reflection around some works on display in the museum; - providing the audience with disabilities an experience of 'art making'; - analysing the process of mediation between the work and people with disabilities; - valorizing interdisciplinary work carried out between museum professionals, researchers, or professionals from other areas who operate within the scope of the publics with whom one wants to interact; - using different direct and indirect communication; - making available through the web network specific content for blind or low-vision people (visual descriptions of works, audio resources, and matrices of drawings to be printed in relief by the users of that web page); - providing exposure tables and collection catalogues in Braille; - using the DAISY system (Digital Accessible Information System), which allows the creation of audiobooks through digital technology for people with visual impairments; - offering guided and/or audio-guides in Portuguese Sign language, audio-description visits, teaching materials in different formats, and multisensory didactics; - advocating active participation of people with disabilities in institutional decision-making within the museum;

	<ul style="list-style-type: none"> - including in the exhibitions and in the historical collections of the experiences and voices of the communities of people with disabilities; - setting up an accessibility team
<p>What soft and professional skills should museum professionals, social care givers, school teachers and/or healthcare personnel have in order to replicate the experience described in the paper/s?</p>	<p>The author of the thesis, similarly to the other authors mentioned in the PRI.A1 report who address the same issue, considers that museum professionals have a very poor training of a generalist and short-term nature, not having the necessary skills to deal with users with disability/disability problems, whatever they may be.</p> <p>The awareness of museum employees as well as their training should involve the professionals who relate directly to the public, such as mediators, receptionists or security guards. This is based on the idea that if the person with a disability is well received, he will acquire a positive self-concept. That experience will have an impact on the strengthening of relationships between people with and without disabilities in the museum context.</p> <p>Majewski (1987) found that the more people without disabilities learn about people with disabilities, the more easily they assume positive attitudes towards their presence. Negative attitudes are associated with a lack of knowledge about the different aspects that relate to disability/incapacity.</p> <p>Museum staff will be better able to understand the reality of exclusion if they work with the groups that represent it. Employees must be rigorously informed about both visitors and collections and recognize the ethical obligations involved in the context in which visitors interact with artistic objects (O'Neill, 2002, 39).</p> <p>It is essential that all those dealing with people with disabilities believe in the importance of inclusive provision and that they understand the meaning of a comprehensive and integrated approach.</p> <p>People with visual and/or hearing impairments valued the presence of blind and/or deaf mediators in promoting activities for this community.</p> <p>At the same time, it would be a way for the museum to demonstrate to the deaf public its level of commitment to promoting equal opportunities and full inclusion. Also, hearing museum staff working directly with deaf people will more easily understand Deaf culture and issues related to their communication (Deafworks 2001). Other museum professionals, who have worked with deaf audiences, have considered that this measure may have an influence on the increased presence of deaf people in the activities developed by the institution aimed at this audience.</p>

2.3 Geographic area no. 3 (Catalonia, Poland, Czech Rep., Slovakia, Switzerland)

Partner institution	ICS
<p>What case studies have you selected that involve users with health problems?</p>	<p>The diagnosis of Complex Post-traumatic Stress Disorder (Complex PTSD) has increased in visibility since being incorporated into the psychodiagnostic manuals, especially and officially in the ICD-11, in June 2018 (Olff et al., 2015, 2020; World Health Organization [WHO], 2018).</p> <p>One of these strategies, with strong scientific evidence of its efficacy and efficiency, is the STAIR (Skills Training in Affective and Interpersonal Regulation) Model, by Dr. M. Cloitre (Cloitre et al., 2002; Jain et al., 2020; Landes, Garovoy & Burkman 2013). This psychological intervention has been widely used in several healthcare contexts (Clifford et al., 2018; Cloitre et al., 2011; Jackson, Weiss & Cloitre, 2019). STAIR Modular treatment was initially developed for veteran soldiers from the USA, but developed in different individual and group formats, and integrates the two most core symptomatic blocks of Complex PTSD: manage emotional dysregulation and improve interpersonal relationships.</p> <p>Two programs of our Psychiatry Service, the Transcultural Psychiatry Program and the Traumatic Stress Program, based on a formal invitation from the National Art Museum of Catalonia (MNAC), designed this study, to cover an essential need of this special patient group. In Spain, there are very few initiatives related to the approach to Complex PTSD and according to actual research publications, there is no experience of the application of the STAIR model in our environment.</p> <p>Health and well-being developed in community settings, including not only arts expressions, but also buildings and environment, have an impact on the determinants of ill-health promotions, by changing individuals' attitudes and improving communication, understanding, attitudinal change and clinical outcomes (Frasser & Al Sayah, 2011; Wilson et al., 2015).</p> <p>Trauma Group therapies, focused on traumatic experiences and their emotional repercussions, facilitate addressing the need to make sense of those past traumatic experiences, and promote the development of management and motivation skills to live more fully in the present, and to be able to plan for the future, in a context of security and trust. When applied to women of diverse cultural backgrounds, both internal and external barriers result in poor adherence to treatments (Clifford et al., 2018; Karatzias & Cloitre, 2019). For this reason, it is proposed to carry out a therapeutic treatment based on a manualized and verified treatment (STAIRS), translated and adapted to a health environment and an art in a community environment such as the museum, with the aim of facilitating adherence, helping to resolve symptoms and improving quality of life.</p>
<p>What methodologies, strategies, and teaching tools have shown to be effective?</p>	<p>The aims of the study were: (1) design a pilot study based on a group psychotherapeutic intervention strategy, for women from cultural diversity who present symptoms of post-traumatic and/or affective stress, at a mild-moderate level, (2) translate to Spanish and culturally adapt the STAIR Modular approach for</p>

these group interventions, apply in two different settings and use methodologies appropriate to the context: group therapy following the STAIR model in the hospital and the same therapy adapted to the context of a public art museum (MNAC), and (3) compare the results in the development of the intervention, as a whole group and according to the area and the methodology applied.

Our hypotheses were: (1) the two groups will have an improvement in the traumatic stress symptoms and in the levels of affectivity, but those that develop the therapeutic program at the MNAC will present a better quality of life and more satisfaction with the intervention, and (2) the MNAC is “non-healthcare”, community and open space, where the possibilities of interaction and generating positive stimuli are highly enhanced. This factor is a promoter of health and well-being.

Method: A total of 26 women with cultural diversity and Complex PTSD were evaluated by expert psychologists and randomly assigned to the same psychotherapeutic treatment but in different settings: the hospital context, with the group psychological intervention as usual, and the second developed in the MNAC museum.

The participating women were recruited from the Transcultural Psychiatry Program of Vall d'Hebron University Hospital, where they were previously diagnosed by Complex PTSD criteria, and already in a high percentage (24 of the total group, 93%) undergoing psychopharmacological treatment.

Fifty-one culturally diverse women were evaluated by two expert psychologists and finally 26 were randomly assigned to each psychotherapeutic group. They were incorporated to the two study groups randomly (1:1) by blocks using an Excel file. Each group carried out its group treatment in the two defined areas: museum and health, with the same number and content of sessions.

The ten sessions were structured and developed in parallel for both groups and four follow-ups were planned and designed, to assess the impact and the possibility of improvement. These individual evaluation sessions were held immediately after the group session, in which the evaluation questionnaires and a group satisfaction questionnaire were applied. New evaluation sessions were held 3, 6 and 12 months after the intervention, by a telephonic interview, because of COVID-19 restrictions (Figure 2).

From among the total of 26 patients recruited, 16 finally concluded the study: 10 patients participated in the HUVH group and 6 in the MNAC, considering adherence criteria when the attendance percentage of the sessions was equal to or greater than 60%. There were no statistically significant differences in attendance in terms of the assigned group (HUVH 76.9% vs MNAC 46.2%, $\chi^2 = 2.6$, $p = 0.107$). However, there was a higher percentage of participation in the hospital group. Regarding the number of automatic events throughout life, measured with the

	<p>TQ scale at the beginning of treatment, an average of 4.9 automatic events throughout life is observed (minimum 1 and maximum 10). No statistically significant differences were observed between the groups when comparing the number of these events ($Z = 0.417$; $p = 0.689$).</p>
<p>What soft and professional skills should museum professionals, social care givers, school teachers and/or healthcare personnel have in order to replicate the experience described in the paper/s?</p>	<p>They should be familiar with this interventions:</p> <ul style="list-style-type: none"> - STAIR (Skills Training in Affective and Interpersonal Regulation) Modular and manualized program by Dr. M, Cloitre, currently extended and replicated in various contexts and with various clinical populations, has shown significant scientific evidence on its efficacy (Cloitre et al., 2002, 2011; Karatzias et al., 2018; Schnyder et al., 2015). STAIR is a modular model, focused on the needs that people present after going through borderline, potentially traumatic experiences. The STAIR Therapy philosophy of the therapeutic model holds that recovery from trauma means not only making sense of what happened in the past, but also creating resources to live in the present in a positive and engaged way (Karatzias et al., 2018). - Treatment integrity: The two therapists participating in the study, experts in the field of PTSD and Trauma reactions, were trained to optimize treatment integrity. They took the online course, completing the modules of the STAIR Program, from the website of the United States War Veterans Association (https://www.ptsd.va.gov/professional/continuing_ed/STAIR_online_training.asp), during the last quarter 2018 and the first of 2019. These professionals also translated the modules and the original materials to Spanish and these contents were supervised by an expert bilingual professional. <p>The two clinical psychologists participated in both settings: Hospital and Museum.</p> <p>The diagnosis of Complex PTSD and its severity were previously performed by mental health professionals, psychiatrists and clinical psychologists. The pharmacological treatments throughout the process were also supervised by the psychiatrists of this Unit, the patients of both groups maintaining the usual follow-ups.</p> <p>On the other hand, they should take into account the following measures before starting:</p> <p>In the preliminary assessment, the group applies a data collection protocol through a semi-structured interview that includes socio-demographic data and several instruments.</p>

2.4 Geographic area no. 4 (Iceland, Norway, Sweden, Finland)

Partner institution	Háskóli Íslands
What case studies have you selected that involve users with health problems?	A master thesis Sigríður Örvarsdóttir. 2018. Sófn, list sem meðferð og alzheimer. (English title: Museums, Art as Therapy and Alzheimer's .)
What methodologies, strategies, and teaching tools have shown to be effective?	<p>The purpose of this thesis was to highlight the project Hittumst á Listasafninu and evaluate the results of surveys, conducted with Alzheimer's patients and their caregivers, in eight organized visits during the first 17 months of the project, i.e. from November 2015 to June 2017. In the above-mentioned visits, visual art played a key role as a tool for stimulating emotions and memories, as well as for increasing the well-being of participants. Results that indicate positive experiences in both groups were used to evaluate project activities as a form of treatment. The project „Hittumst á Listasafninu“ is part of a network, formed by the project Art and Culture as Therapy funded in Spain in 2008 and includes visits to MuBAM, The Museum of Fine Arts in Murcia, Spain which has been ongoing since 2008 to the present day.</p> <p>Both qualitative and quantitative methods were used in the research, and results are presented in statistical form and by describing personal responses of survey participants. The results generally indicate that participants had a positive experience and that the project was successful even though its form and set-up can be improved.</p> <p>The author followed an exploratory methodology on finding out answers to the research. Looking at artwork proved effective in evoking emotions and memories, initiating conversation and participation between members of the group of participants, including caregivers. Visits to the Art Museum connected the members even if they did not know each other priorly. They built up a trust as a group, as they became familiar with the museum setting and museum educator. In promoting the activity of looking, listening and responding with a dialogue and narrative, the participants felt themselves in an environment where everyone was on equal level.</p> <p>Creating an atmosphere of welcoming and listening became a determining point for the success of the visit. This was especially important in sharing information about the artwork and putting it in context with the users' lifestories. It improved their participation and encouraged them to view their opinions without fearing a rejection. No comment or answer was considered wrong. That had a positive effect on mental health (self-confidence).</p> <p>Involving and incorporating social service institutions (National Hospital Dementia Unit and Day centres) was also fundamental for all stakeholders, professionals and museum users. Together they improved wellbeing, health and social inclusion while also working against prejudice in society.</p>

<p>What soft and professional skills should museum professionals, social care givers, school teachers and/or healthcare personnel have in order to replicate the experience described in the paper/s?</p>	<p>The knowledge and skills of museum professionals, social care givers, schoolteachers and/or healthcare personnel are different in themselves which must be considered when proposing activities to vulnerable groups in society or those with disabilities. To meet unexpected situations, due to the nature of the groups, these professionals should be trained and familiar with the main characteristics of the mental and physical barriers. In that way, they can respond in a creative way and direct the attention to the strengths of each one, instead of focusing on weaknesses. Intellectual and physical barriers are not always evident and thus they must be flexible and ready to use the skills of adaptability and problem solving without hesitation and without prejudice.</p> <p>This knowledge benefits the professionals and provides them with self confidence in the efforts of building up trust and improving wellbeing and social inclusion.</p>
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2.5 Geographic area no. 5 (UK, Ireland, Estonia, Latvia, Lithuania)

<p>Partner institution</p>	<p>UNIMORE</p>
<p>What case studies have you selected that involve users with health problems?</p>	<p>St. Mungo's Museum of Religious Life and Art: "Curios" project, Glasgow; Open museum, Glasgow; HeART of Stroke' (HoS) community-based arts and health group intervention; The British Museum: "Shared Experience"; The Hove Museum and Art Gallery: "Crafty Ways of Thinking"; The Lightbox Museum: "Way of Seeing"</p>
<p>What methodologies, strategies, and teaching tools have shown to be effective?</p>	<ul style="list-style-type: none"> - Physical care proved to be particularly effective when performed in networks and groups of communities; - promoting activities such as Storytelling, Arts and crafts workshops are also very effective to boost involvement among different people – i. e. "community engagement"; - paying attention to designing spaces in accordance with individuals' needs emerged to be a key point in determining the success of an experience; - involving community in the creation of exhibitions and/or finding new ways to display objects has also shown beneficial effects, especially when people are encouraged in oral discussions (over written text); - simplify knowledge (making it accessible) to diverse social levels increase people involvement, positively benefits on perceived physical conditions; - involving national institutions – such as the NHS – and social services is of great help in supporting initiatives.

<p>What soft and professional skills should museum professionals, social care givers, school teachers and/or healthcare personnel have in order to replicate the experience described in the paper/s?</p>	<p>Museum staff must be trained to work with individuals, groups, communities who may be understood to be vulnerable and/or excluded. Also, they must be made aware of intellectual and physical barriers people physically disabled may face. It is crucial to share with museum staff an ethic of care based on obligation, reciprocity and trust. Moreover, museum staff must be trained to work with smaller and bigger groups, as dynamics of different size teams change radically.</p> <p>Psychotherapists, social caregivers and healthcare personnel have to be involved and informed of the important role art museums/initiatives play in preventing psychological decline resulting from physical harm.</p> <p>School teachers, as well as other professionals not strictly related to museums, should understand the importance of OBL as a tool for self-construction. Such professionals must also be trained in systematic observation, understanding their impact as outsiders on the observed phenomena, in order to redesign and implement further activities.</p> <p>Social care givers should be trained to deal with a diverse degree of care, as the deepening of care relationship between professional and patient substantially changes, compared to a more superficial one.</p>
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2.6 Geographic area no. 6 (Italy, Slovenia, Croatia, Hungary, Malta)

Partner institution	Zètema
<p>What case studies have you selected that involve users with health problems?</p>	<p>"Toccare con gli occhi e vedere con le mani. Funzioni cognitive e conoscitive dell'educazione estetica" by L. Secchi in Ocula 19, Percorsi di gioco Ricerca e discorso ludico per la comunità, 2018, see also "Between sense and intellect, Blindness and the strength of inner vision", by L. Secchi in "The Point of Being", curated by Derrick de Kerckhove and Cristina Miranda de Almeida, Cambridge, Cambridge Scholar Publishing, 2014. "Per la visibilità/vivibilità del Museo. Un percorso tattile per la Stele Tadini di Antonio Canova", Marco Albertario, Loretta Secchi, Selene Carboni, https://www.accademiataadini.it/didattica/per-la-visibilita-vivibilita-del-museo/</p> <p>"Per una estetica della tattilità. Ma esistono davvero arti visive?", Aldo Grassini, Armando Editore, 2015; Omero Museum in Ancora</p>
<p>What methodologies, strategies, and teaching tools have shown to be effective?</p>	<p>The Anteros approach is based on hands-on experience and elaboration of symbolic and aesthetic thought.</p> <p>Didactic-rehabilitative method that involves the tactile reading of pictorial works translated into perspective bas-reliefs. Several years of experience has been proved as effective tools: bas-reliefs, three dimensional tables and preparatory tables, descriptive cards of the works that allow a reading on different</p>

	<p>communicative levels (E. Panowsky: formal, iconographic and iconological level).</p> <p>On the other hand, The Omero approach is based on hands on experience on artwork originals and copies, thematic paths on periods of art history, explorable and modular architectural models mainly during visits and workshops. The museum provides original of art works and copies (1:1 scale), explorable and modular architectural models, bas-relief and tactile tables. Light audio pen pen accompanies and guides the visitor along the exhibition path. This audio guide is a way to discover a selection of works in total freedom following the own pace. Designed by the Education Department of the Omero Museum, the audio guide pays particular attention to the description of the works, so as to make communication fully accessible even to blind people. It can be used by everyone and used in various paths indoors and outdoors. The audiopen is an audio pen activated simply by pointing the pen on a paper/map and it is possible to choose the itinerary/contents that best suits the visitor's interest.</p>
<p>What soft and professional skills should museum professionals, social care givers, school teachers and/or healthcare personnel have in order to replicate the experience described in the paper/s?</p>	<p>The skills that a museum professional must have: historical-artistic-archaeological training that allows to decline the contents according to the specific needs of the disabilities. Knowing an artwork and having the ability to contextualise it with narrative elements, with the use of a metaphorical language, with different sensory stimuli, with proprioception and kinaesthetic exercises allows people with disabilities to get in touch with the represented subject, with the material used; reaching an extension of knowledge that is elevated to aesthetic pleasure. The degree of specialisation of the professional, according to the different disabilities, should be compared with the work in teams together with other museum professionals (curators, fitters, cultural mediators), in order to develop truly inclusive didactic proposals, which can be an authentic experience of knowledge of beauty and artworks.</p> <p>The relationship between museum professional, teacher and social caregiver should be synergistic and preparatory to the didactic experience in the museum. Knowing the specific needs of specific disabilities before the visit would allow you to create a dedicated and ideal activity for the learner.</p> <p>To share experiences and to have methodological purposes shared as a team would represent the real success of a museum activity. Teachers have a fundamental role in the preparation of pupils with disabilities included in class groups as having the right elements to not limit the museum experience in the single day of the visit, would mean creating a path between the school, the museum and the territory.</p> <p>The synergy of the professions certainly makes it possible to improve the teaching methodologies in a "museum" environment different from the school one, which inevitably lowers the fear of judgement and allows a freer expression by all the participants.</p>

2.7 Geographic area no. 7 (Greece, Cyprus, Bulgaria, Romania)

Partner institution	Inter Alia
What case studies have you selected that involve users with health problems?	Educational program titled “Making mosaics with bricks and colors” designed for schoolchildren with disabilities (intellectual disabilities, autism spectrum disorders and deaf children), and implemented at the Rooftile and Brickworks Museum N. & S. Tsalapatas (technological museum in Greece).
What methodologies, strategies, and teaching tools have shown to be effective?	<p>The design of the educational program was based on the STEAM approach and the principles of Differentiated Instruction (DI) and Universal Design for Learning (UDL), such as the focus on essential knowledge and skills based on children’s characteristics; the connection with prior experiences and daily life experiences; the use of multiple and alternative ways for the representation of information such as authentic objects, materials and models; the promotion of the active and multisensory engagement of the children; the hands-on activities; the use of visual patterns; the provision of choices for creative activities in groups or independently; choices to create their own end product; the use of simple and understandable vocabulary; the creation of a safe, welcoming and supportive learning environment; the varied level of children’s support during the activities, etc.</p> <p>The main teaching methodologies and tools used were storytelling, object analysis, creation of artworks with the use of pre-designed patterns (learning by doing).</p> <p>Based on the evaluation of the program, it was observed that not all children used the provided pre-designed patterns, and not all children used the patterns and materials in the same way. In the case of children who chose to use the pre-designed patterns, it was observed that they did not necessarily follow the structure of the initial drawing. What they did, instead, was that they followed their own structural rule. In any case, children came up with interesting aesthetic results through different approaches.</p> <p>The Special Education Teachers (SETs) who were accompanying the children, had visited the museum with their students in the past, to attend educational programs with different topics. But it was the first time that they were attending an educational program based on the STEAM approach. None of the SETs had knowledge about STEAM education, but all of them expressed their interest to learn more about it, and how they can take advantage of this approach for the benefit of their students. Regarding their views about the educational program, all of them found the program interesting for the following reasons:</p>

	<ul style="list-style-type: none"> - Types of activities: Multisensory activities; Understandable activities; Adjusted activities for students with disabilities; Combination of museum resources with art activities; Experiential learning; Individual and group activities. - Structure: Cohesion; Appropriate sequence of activities. - Implementation: Appropriate preparation of the professionals; Supportive environment; Communication; Encouragement - Learning outcomes and benefits for children: Communication skills; Collaboration skills; Social interaction; Fine motor skills; Language skills; Observation; Motivation for participation; Active participation; Enjoyment, enthusiasm; Self-esteem; Creativity; Socialisation; Expanding children's experiences; Knowledge <p>Both members of the museum staff (that were following the process of the educational program) mentioned that they had some general knowledge about the STEAM approach mainly from internet resources. They characterised the educational program as an "excellent", "important" and "very interesting" approach.</p> <p>Children's support by teachers and program instructors is of particular importance for children with diverse needs and abilities and in relation with different educational and developmental domains. During the implementation of this educational program, children with various disabilities obviously needed varied levels of support and guidance but without setting limits to their choices, initiatives and creativity. Since STEAM education benefits all students including those with disabilities, it is important to provide teachers with similar methodologies, to promote awareness about STEAM education, as well as about Museum Education. The provision of resources, time and materials, team working and the adoption of the principles of DI and UDL in order to meet the needs of all students, including those with disabilities, during the implementation of STEAM activities are also considered crucial parameters.</p>
<p>What soft and professional skills should museum professionals, social care givers, school teachers and/or healthcare personnel have in order to replicate the experience described in the paper/s?</p>	<p>The design and implementation of this educational program were inextricably related to the unique and specific collection and resources of the Rooftile and Brickworks Museum N. & S. Tsalapatas (equipment, machinery, miniatures of the factory machines and materials). Hence, it is not possible to repeat an identical educational program in another museum or other organisation. However, this case study reveals the potential dynamic of each museum to take advantage of its own unique resources, expand and implement context-specific activities and programs based on STEAM Education and develop various collaborations.</p>

	<p>Soft and professional skills needed:</p> <p>Collaboration skills: Given the fact that the design of a museum educational program should take into account the qualitative characteristics of the museums as non formal learning environments, the target groups, the museum space and experience, and the social dimension of the educational activities, the museum professionals, social care givers, school teachers and/or healthcare personnel need to collaborate with each other, and discuss about the profile, the characteristics and the needs of the participating schoolchildren with disabilities.</p> <p>Communication skills: Given the fact that the participating schoolchildren with disabilities need to feel familiar with and comfortable within the museum space as soon as possible, the museum professionals, social care givers, school teachers and/or healthcare personnel need to implement introductory acquaintance activities to create a friendly, safe and playful atmosphere, and communicate with simple and understandable vocabulary based on the prior knowledge of the children. Also, with simple questions, they need to encourage the children's active participation, as well as the interaction among them and with the adults (with their teachers and the persons who conduct the program).</p> <p>Cultural awareness and expression skills: Given the fact that (a) the materials for the art activities of the educational program (e.g. pre-designed patterns for colouring miniature bricks, cardboards and visual patterns for creative exploitation) need to be prepared beforehand, and (b) the participating children need to be encouraged to create their own artworks (in collaboration with their peers or independently) during the program, the museum professionals, social care givers, school teachers and/or healthcare personnel need to have an understanding of and respect of how ideas and meaning are creatively expressed and communicated by children with disabilities, and through a range of arts and other cultural forms. This set of skills includes (a) the ability to express and interpret figurative and abstract ideas, experiences and emotions with empathy, (b) the ability to do so in a range of arts and other cultural forms, (c) the ability to identify and realise opportunities for individual and collective expression, and (d) the ability to engage in creative processes. Also, it is important to have an open attitude towards, and respect for, diversity of cultural expression together with an ethical and responsible approach to intellectual and cultural ownership. A positive attitude also includes a curiosity about the world, an openness to imagine new possibilities and a willingness to participate in cultural experiences.</p>
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Skills in science, technology and engineering: Given the fact that this case study is based on the STEAM approach, the museum professionals, social care givers, school teachers and/or healthcare personnel need to have the ability and willingness to explain the world by making use of observation and experimentation, in order to identify questions and to draw evidence-based conclusions. This set of skills includes the understanding of science as a process for the investigation of the world through observations and controlled experiments, and the readiness to discard one's own convictions when they contradict new experimental findings. It also includes the ability to use and handle technological tools and machines, as well as scientific data to achieve a goal or to reach an evidence-based decision or conclusion. Professionals should also be able to recognise the essential features of scientific inquiry, and have the ability to communicate the conclusions and reasoning that led to them. Lastly, this set of skills includes an attitude of critical appreciation and curiosity, a concern for ethical issues and support for both safety and environmental sustainability, in particular as regards scientific and technological progress in relation to oneself, family, community, and global issues.

Personal, social and learning skills: Given the fact that children's support by teachers and program instructors is of particular importance for children with disabilities, the museum professionals, social care givers, school teachers and/or healthcare personnel need to have the ability to reflect upon themselves, to effectively manage time and information, to work with others in constructive ways, to remain resilient and manage their own learning and careers. This set of skills includes the ability to cope with uncertainty and complexity, learn to learn, support one's physical and emotional well-being, to maintain physical and mental health, and to be able to lead a health-conscious life, empathise and manage conflicts in an inclusive and supportive context. For successful interpersonal relations and social participation, it is essential to understand the codes of conduct and rules of communication generally accepted in different environments and groups. This set of skills includes the ability to identify one's capacities, to focus, to deal with complexity, to critically reflect and to make decisions. This includes the ability to learn and work both collaboratively and autonomously, and to organise and persevere with one's learning, evaluate and share it, seek support when appropriate, and effectively manage one's career and social interactions. Professionals should be resilient and able to cope with uncertainty and stress. They should be able to communicate constructively in different environments, collaborate in teams and negotiate. This includes showing tolerance, expressing and understanding different viewpoints, as well as the ability to create confidence and feel empathy. This set of skills is based on a positive attitude toward one's personal, social and physical well-being and learning throughout one's life. It is based on an

attitude of collaboration, assertiveness and integrity. This includes respecting diversity of others and their needs and being prepared both to overcome prejudices and to compromise. Professionals should be able to identify and set goals, motivate themselves, and develop resilience and confidence to pursue and succeed at learning throughout their lives. A problem-solving attitude supports both the learning process and the professional's ability to handle obstacles and change. It includes the desire to apply prior learning and life experiences and the curiosity to look for opportunities to learn and develop in a variety of life contexts.

Discussion

1. Teaching/learning methodologies/strategies for health and well-being development

Taking into account the results of the *Investigation on inclusive and customized didactic and teaching practices for people with health problems*, this paragraph aims to present the most effective teaching and learning strategies and methodologies for protected characteristics of museum users, in particular users with physical and cognitive disabilities.



Figure 1 – Wordcloud of teaching/learning methodologies and strategies

Storytelling and narration are the most effective strategies to engage users in museum heritage experiences, followed by manipulative and artistic activities such as object-based learning. Such methodologies are often accompanied by other activities such as collaborative discussion and co-creation of interpretations and meanings of the works analysed. Learning methodologies involving the analysis of cultural objects adopt methodologies typical of STEAM disciplines, such as Inquiry-based learning.

2. Professional and transverse skills for museum professionals

Museum professionals involved in the design of experiences for the promotion of well-being and health in groups with special characteristics must be provided with specific professional and transversal skills in order to realise effective educational and social inclusion activities.

The following table summarises the results of the Inclusive Memory project.

Professional skills	Transverse skills
Evaluating educational experiences in the museum	4C skills (Creativity, Communication, Collaboration, Critical thinking)
Creating different evaluation tools	Problem solving
Co-designing experiences with different local entities (schools, families, associations, social-care and health-care institutions)	Empathy
Involving social groups with protected characteristics	Cultural awareness
Protected characteristics knowledge	Digital skills

Table 2 – Identified professional and transverse skills for museum professionals

The identification of these competences will be useful for the project partners in order to design the *Pilot-courses to train future museum professionals, social care givers, school teachers and healthcare personnel into the idea of Museums as Inclusive Spaces (PR3)* and to pilot Inclusive Memory blended course in the partners' countries (PR4).