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

Inclusive Memory

PR5 A3: MOOC Design

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Introduction

Following the planned activities in the project application, Inclusive Memory partners designed the IM OER and IM MOOC for HEIs students in the fields of education, social care and medical sciences, plus other informal learners, as museum professionals, members of cultural associations, and NGOs. This set of activities were conducted in the framework of PR5 project results. Based on the pilot phase, the created OERs and courses were redesigned into MOOC form to be freely available to a large public of (future) museum professionals, social care givers, schoolteachers and healthcare personnel worldwide. The third activity of PR5 consists of PR5 A3 which describes the process of MOOC design. This document reports on this activity.

Theoretical considerations about MOOCs

A Massive Open Online Course, commonly referred to by the acronym MOOC, is a course offered in a completely virtual model, designed for a very large and potentially unlimited number of participants and made available on the Internet without any access restriction or academic prerequisite, providing a complete learning experience. They are often offered by universities, institutions, or private companies and can be free or paid, with some providing certificates or degrees. These courses are usually provided with learning objectives, are structured around a range of contents, educational activities and resources, and integrate assessment moments that allow the development of specific skills and/or knowledge to be assessed.

In MOOCs, participants can be granted greater or lesser freedom by: (i) allowing participants to access the course content in its entirety from the beginning, and then it is up to the learners to adapt their individual learning path to the desired pace; (ii) establishing a stricter schedule, only allowing access to resources or resources and activities on pre-defined dates; (iii) setting a weekly pace for the presentation of materials and activities but keeping it open for a larger period.

As differentiating characteristics from other online training, a MOOC is therefore defined as an open and scalable (massive) virtual course. Being open means the course has unrestricted access. It should be available to anyone, anywhere as long as they have an internet connection, can enroll in the course without meeting other prerequisites. It also means that the course is free of charge, although some include additional mechanisms for certifying learning that requires payment, and use OER, licensed for (re)use. Being scalable (massive) means that the course: (i) can operate with a large number of participants while maintaining the quality of the educational experience and that (ii) the increase in the number of participants is not directly proportional to the effort required for its follow-up, namely with regard to academic staff, tutoring, and evaluation, amongst others (Brouns et al., 2017).

MOOCs are generally designed in different ways depending on their learning approach and structure. Although the categorization of these courses has become more complex over time, the two most well-known types of design models are the following:

- xMOOCs, which are based on a more directive (instructional) and cognitivist pedagogy, which privileges the interaction of learners with the contents, assume that the dynamics of interaction between participants is not necessary for the dynamics of learning, which is eminently individual. They typically feature video lectures, quizzes, and assignments, as well as automated or peer-graded assessments. xMOOCs also have fixed start and end dates (sometimes self-paced).
- cMOOCs: based on a connectivist pedagogy, which favours networking and interaction between participants, they assume that the dynamics of interaction is necessary for learning, which is eminently social. In these courses participants generate content and share knowledge. Thus, cMOOCs are less structured, more exploratory and encourages critical thinking and creativity.

Scallability in particular raises complex issues which are treated differently by these two types of MOOCs, with major repercussions on the configuration of the Teaching Presence [1] and on evaluation. To ensure scalability, the trend towards greater automation of processes, namely evaluation, was affirmed in the xMOOCs. In the case of cMOOCs, the Teaching Presence is distributed, either through a team of tutors appropriate to the number of participants, or through the other participants, to carry out the evaluation tasks (peer evaluation). Although xMOOCs may also include spaces for interaction between stakeholders, this communication is rarely considered for the purpose of assessing learning.

Although its genesis occurred in Canada and, soon after, in the USA, it was following initiatives from the European Union that a more consolidated conceptual work on MOOCs was developed, allowing the stabilization of a notion inserted in the theoretical framework of distance learning. It was then established that a MOOC should include not only educational content but also facilitation of peer interaction with each other (including some, but limited, with teachers), provide authentic activities and tests, including *feedback* (with rubrics for peer review and AI systems for massive qualitative assessment), provide some kind of competency validation or certification, and provide a course guide (Brouns et al., 2014, 2017).

Universidade Aberta (UAb) played a prominent role in the movement by developing the iMOOC model (Teixeira & Mota, 2013), which was the first model of an institutional nature worldwide. It sought to synthesize a connectivist-based approach with a formal learning context and also enrich it with the integration of theoretical and practical elements of virtual distance learning, adapting the principles of the pedagogical model of the UAb (Pereira et al., 2007) to the organization of open and massive online courses. The name adopted is related to the focus on "individual responsibility, *interaction*, *interpersonal* relationships, *innovation* and *inclusion*" (Teixeira, Mota, Morgado, & Spilker, 2015, p. 7), since independent study and reflection are associated with interactions with other participants in an open social environment (Teixeira & Mota, 2014).

As mentioned in previous sections, seeking to reconcile characteristics of the two main models the iMOOC model is closer to cMOOCs and builds from its foundations. This is due to the emphasis it places on the interaction between participants, while fostering the creation of learning communities and capitalizing on them for teacher support functions. Teacher support must be based on the

[1] Teaching Presence, within the framework of the *Community of Inquiry* model, refers to the design, facilitation, and direction of cognitive and social processes to support the learning process (Garrison, 2016).

learning community, through collaboration, dialogue, peer feedback and the active engagement of participants in the learning process (Teixeira & Mota, 2014).

In addition to these three different approaches to MOOC pedagogical design, in recent years other variations and hybrid designs have emerged, as the following:

- Hybrid or Blended MOOCs, which combine MOOC content with traditional face-to-face or instructor-led sessions.
- Mini-MOOCs or Micro-MOOCs, which are shorter, more focused courses targeting specific skills.
- Adaptive MOOCs, which use AI and data analytics to personalize learning paths for learners.
- Task-Based MOOCs, which focus on problem-solving and real-world applications, often used in technical fields like programming or business.

Course structure and design

Given the context and nature of the course, the IM MOOC was developed as a cMOOC, where learning experience is more supported on the quality of the Materials and Learning Activities than on the interactions between participants. Being self-paced, these MOOCS enable, also, a maximum of flexibility for the participants.

The MOOC kept most of the structure and materials already created for the Pilot Course and adapted the assessment of the activities to make them automatized and not so teacher grading dependent as in the Pilot Course. The feedback of the participants who took the Pilot course was also taken in account, with effects in terms of the number and extent of the activities. Being a self-paced MOOC, participants can freely navigate and complete the Units they want, by the order they want. The tracking of conclusion of the activities is implemented, so participants may regulate their learning in terms of progress. The IM MOOC uses a Creative Commons Licence: CC-BY-NC-SA.

These were the main procedures in the learning design of the IM MOOC:

- Adaptation and streamlining of the Pilot Course syllabus to a more compacts and autonomous learning experience.
- Redesign of some module's activities.
- Evaluation and adaptation of existing resources.
- Design of a bootcamp short module.
- Redesign of the module quizzes.
- Adaptation of the diagnostic and final evaluation surveys

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Course units

The MOOC kept the 5 major units of the Pilot Course, as follows:

Unit I. Introduction to the course and definition of basic concepts on inclusion and wellbeing.

Unit II. Understanding the basis of human well-being applied to positive education and art-health experience.

Unit III. Museum education for wellbeing and inclusion.

Unit IV. Best practices at museum for inclusion and wellbeing based on the use of technology.

Unit V. Plan an inclusive museum experience for wellbeing promotion.

A new Unit (**Unit 0**. Presentation of the MOOC and the Online Environment) was introduced as a BootCamp to introduce participants to the course syllabus and the course environment, so that participants get to know the learning environment if they have less or no experience in the platform. This strategy follows the design principles of the iMOOC pedagogical model (Teixeira & Mota, 2014). According to the iMOOC model, in the initial stage of the course participants should have an opportunity to get acquainted with the spaces, tools and services, as well as with the processes of work and communication that will be used in the course (Teixeira & Mota, 2014). This "familiarization" process has proved to be an essential component in learner success and satisfaction regarding their online learning experience.

Main objective and scope

Introduce (current and future) museum professionals, social caregivers, schoolteachers and healthcare personnel to the idea of museums as inclusive spaces.

- **Hosting platform**: Moodle at AULAbERTA (UAb)
- **Language**: Course description in English. Course material in all partners' languages.
- **Scope**: General
- **End-users** [target lifelong learners]: (current and future) museum professionals, social caregivers, schoolteachers, healthcare personnel, and staff working for NGOs or other associations
- **Main learning outcomes of the MOOC:**

Learning outcomes

By the end of the course, you will be able to:

- Apply acquired knowledge and developed competences to redefine the value of museums through the personal, social, and physical motivating factors (ABCD approach).
- Identify professional and soft skills that make museums more inclusive.

- Recognise projects where benefits of Art-Health-Wellbeing is evident.
- Connect artwork with the visitors' condition/life-story.

Professional skills

By the end of the course, you will be able to:

- Understand the ABCD approach (Asset-based community development).
- Develop knowledge about protected characteristic groups.
- Adopt an approach that bears in mind the social model of disability.
- Know psychological resources and strengths that promote people's well-being and inclusive relationship with a museums' experience.
- Co-design Museum experiences at different local entities.
- Involve social groups with protected characteristics.
- Create assessment tools.

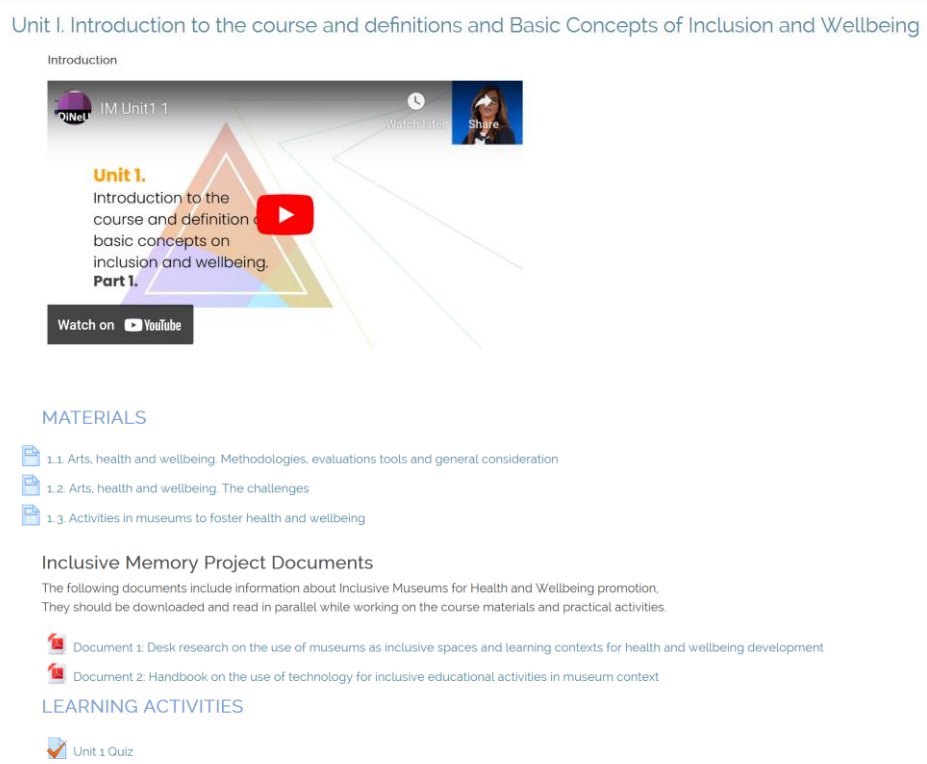
- **Workload**: 25 hours (1 ECTS).
- **Course title**: Inclusive Museum for Health and Wellbeing Promotion.
- **Prior to the course:** participants will answer a survey about their expectations, available at Unit 0. Pre-course survey include the following topics:
  - ✓ Participants characterisation
  - ✓ Expectations about the course
  - ✓ Previous knowledge about the basis of human well-being applied to positive education and art-health experience
  - ✓ Previous knowledge about museum education for wellbeing and inclusion related to target groups with special needs
  - ✓ Previous knowledge about best practices at museum for inclusion and Wellbeing based on the use of technology
  - ✓ Previous knowledge about planning and designing an inclusive museum visit for wellbeing promotion

- **After the course:** participants will evaluate the course after its completion by completing a final survey. The post-course survey include the following topics:
  - ✓ Global course satisfaction
  - ✓ Activities pertinence (per Unit)
  - ✓ Most and less enjoyed elements of the course
  - ✓ Improvement suggestions
  - ✓ Changes to practice post course
  - ✓ Quality assessment of Materials information
  - ✓ Quality assessment of Videos
  - ✓ Quality assessment of Activities
  - ✓ Knowledge about the basis of human well-being applied to positive education and art-health experience after the course
  - ✓ Knowledge about museum education for wellbeing and inclusion related to target groups with special needs after the course
  - ✓ Knowledge about best practices at museum for inclusion and Wellbeing based on the use of technology after the course

- ✓ Knowledge about planning and designing an inclusive museum visit for wellbeing promotion after the course

MOOC syllabus

Unit I. Introduction to the course and definition of basic concepts on inclusion and wellbeing (3h)



Learning Outcomes

At the end of this unit the participant should be able to explain the concepts: social model of disability, inclusion and protected characteristics groups.

Contents

- Terminology: definitions, concepts (inclusion, disability, wellbeing) and UNESCO's code of ethics).
- Inclusion in museums. Definition of acces4all.
- Triangle arts + health + wellbeing.
- Activities in museums to foster wellbeing.

Materials

- 5 Videos and 2 documents about:
  - 1.1. Arts, health and wellbeing. Methodologies, evaluations tools and general consideration
  - 1.2. Arts, health and wellbeing. The challenges
  - 1.3. Activities in museums to foster health and wellbeing

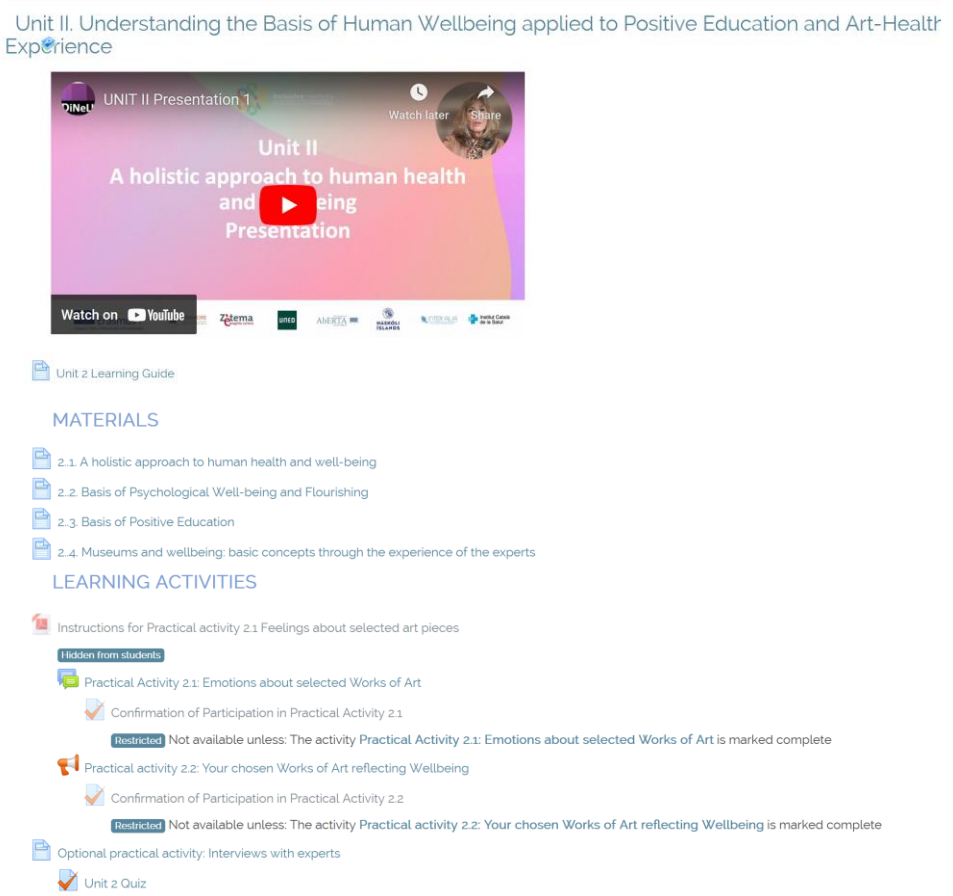
Learning Activities

- Watch the videos and study the Learning Materials.
- Download and refer to the Inclusive Memory Project documents along the course.
- Answer the Unit Quiz.

Assessment

- Unit Quiz (3 tries to get a minimum grade of 10 in 20 points).

Unit II. Understanding the Basis of Human Well-Being applied to Positive Education and Art-health Experience (4h).



Learning Outcomes

At the end of this Unit, participants should be able to understand the relevance of positive emotions and some central human strengths for human well-being, explain the role of human strengths and resources in the development of positive education programs, with a particular focus on empathy and emotional intelligence, and identify the processes and impact of positive emotions and human strengths in art-health-experience as a way of personal and social healing under an individual and social perspective.

Contents

- Health and well-being: a glance to current concepts.
- Positive emotions and well-being.
- The role of human strengths and psychological resources in well-being.
- Understanding others and one's own emotions for empathy-building.
- Basis of positive education.
- Art-health experience in museums for well-being development.

Materials

6 videos about:

2..1. A holistic approach to human health and well-being

2..2. Basis of Psychological Well-being and Flourishing

2..3. Basis of Positive Education

2..4. Museums and wellbeing: basic concepts through the experience of the experts

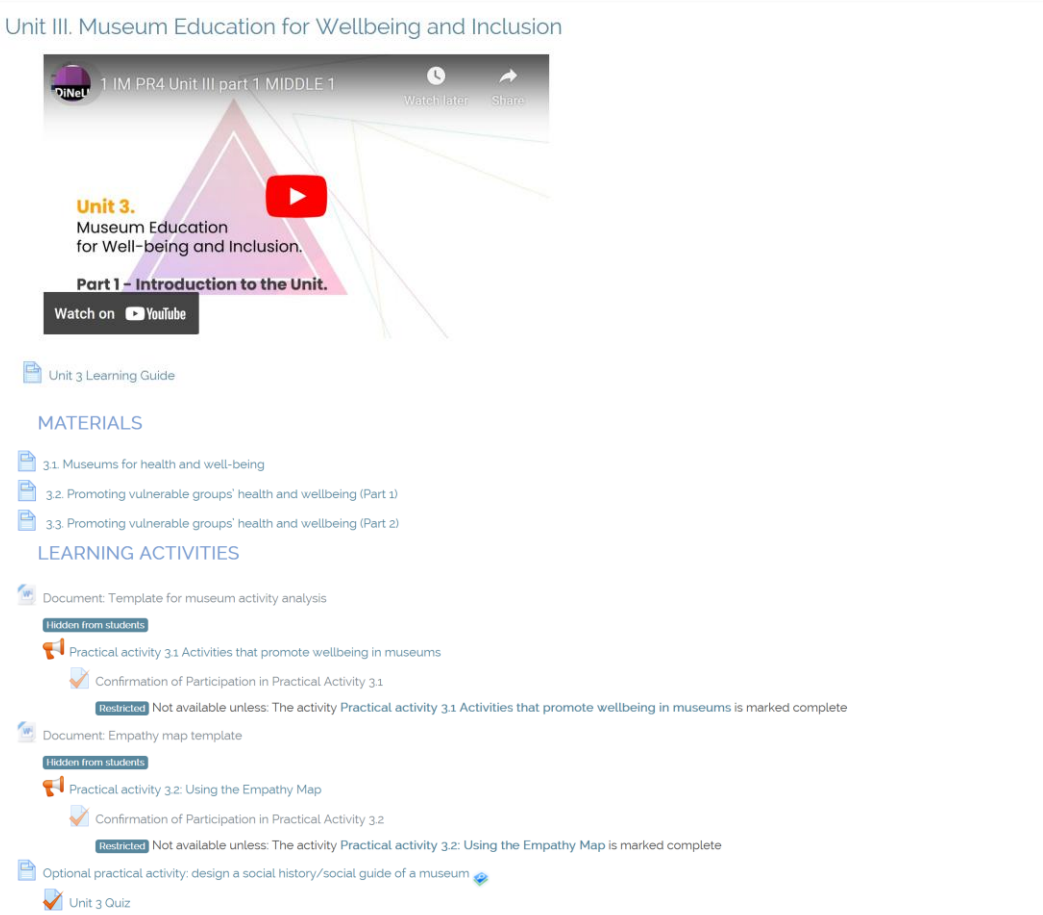
Learning Activities

- Watch the videos and study the Learning Materials.
- 2 Practical activities (PA 2.1 Emotions around selected art pieces; PA 2.2 Your chosen pieces of art reflecting well-being) and 1 optional activity (Interviews with experts); Unit Quiz.

Assessment

- Complete the Practical Activities.
- Unit Quiz (3 tries to get a minimum grade of 10 in 20 points).

Unit III. Museum Education for Wellbeing and Inclusion (5h).



Learning Outcomes

At the end of this Unit you should be able to build empathy with a target group situation according to a code of ethics as well as to compare museums that have barriers and those who have not. You should also be identify barriers and points of inclusion.

Contents

How to help museums be inclusive spaces and promote health and well-being of all audiences and especially of some target audiences:

- users with mobility, physical and sensory impairments,
- users with cognitive disabilities and/or learning difficulties,
- users marginalised due to lower socioeconomic status,
- migrants and refugees,
- users with Alzheimer's or dementia,
- users with Autism Spectrum Disorders (ASD), and
- users with Post-Traumatic Stress Disorder (PTSD).

Materials

3 videos and 1 document about:

3.1. Museums for health and well-being

3.2. Promoting vulnerable groups' health and wellbeing (Part 1)

3.3. Promoting vulnerable groups' health and wellbeing (Part 2)

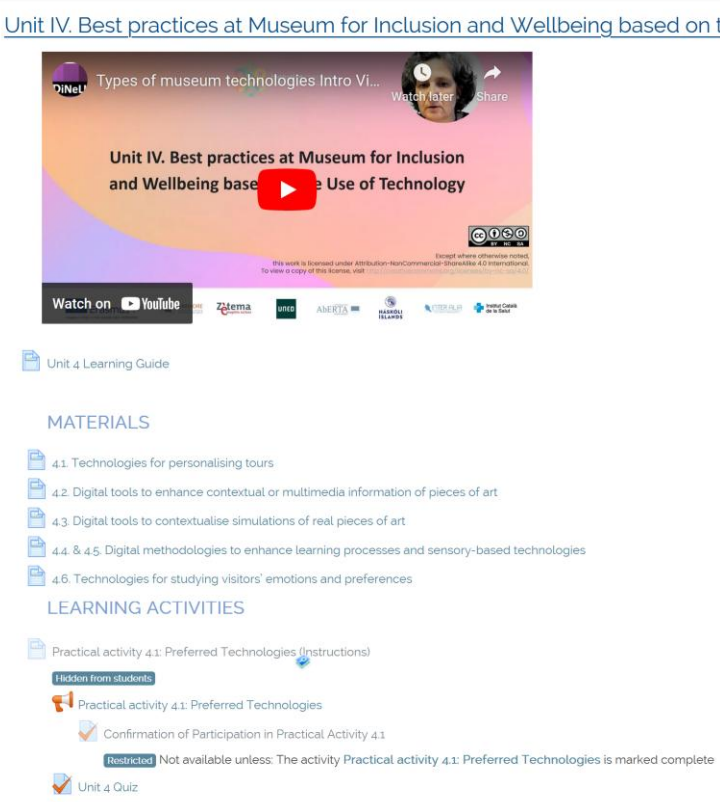
Learning Activities

- Watch the videos and study the Learning Materials.
- 2 Practical activities (PA 3.1 Activities that promote Wellbeing in museums; PA 3.2 Using the Empathy Map.) and 1 optional activity (Design a social history/social guide of a museum). Unit Quiz.

Assessment

- Complete the Practical Activities.
- Unit Quiz (3 tries to get a minimum grade of 10 in 20 points).

Unit IV. Best Practices at Museum for Inclusion and Wellbeing based on the Use of Technology (5h)



Learning Outcomes

At the end of this Unit you should be able to identity museums that include technology innovations to help achieve inclusion and describe technological based activities that promote wellbeing among users with special needs.

Contents

Best Practices to use Museum Technologies:

1. Technologies for personalising tours;
2. Digital tools to enhance contextual or multimedia information of pieces of art;
3. Digital tools to contextualise simulations of real pieces of art;
4. Digital methodologies to enhance learning processes;
5. Sensory-based technologies;
6. Technologies for studying visitors' emotions and preferences.

Materials

5 videos and other resources about:

4.1. Technologies for personalising tours.

4.2. Digital tools to enhance contextual or multimedia information of pieces of art.

4.3. Digital tools to contextualise simulations of real pieces of art.

4.4. & 4.5. Digital methodologies to enhance learning processes and sensory-based technologies.

4.6. Technologies for studying visitors' emotions and preferences.

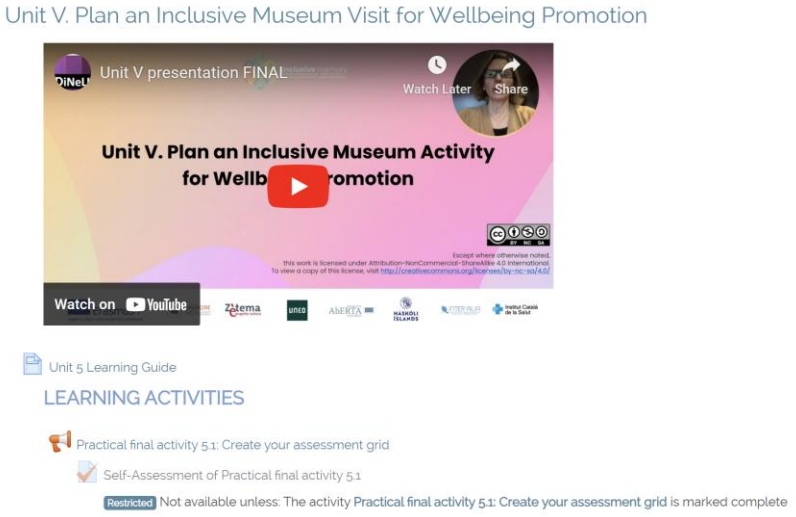
Learning Activities

- Watch the videos and study the Learning Materials.
- Unit 4: PA 4.1 Preferred Technologies.
- Answer the Unit Quiz.

Assessment

- Unit Quiz (3 tries to get a minimum grade of 10 in 20 points).

Unit V. Plan an inclusive Museum Experience for Well-being promotion. (8h)



Learning Outcomes

At the end of this Unit you should be able to plan an inclusive activity in a museum following the social model of disability and the design 4all approach, with special focus on the protected characteristics groups. By using soft skill, participants should be able to do so by applying the terminology of wellbeing, positive emotions, and human growth in the template for the museum activity, as well as identifying strengths in order to promote wellbeing in the museum.

Contents

- Design of an inclusive activity to an identified target group/museum context based on participants' acquired knowledge about wellbeing and technological possibilities (Asset based methodology)
- Measuring wellbeing in the inclusive activity

Materials

1 video and a document (template to design an inclusive Museum Experience for Well-being promotion)

Learning Activities

PA 5.1. Create your assessment grid.

Assessment

Self-assessment with a provided rubric.

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Assessment

To finish the MOOC and receive a certificate of completion, participants must complete the following activities:

- Pre- and post-course surveys
- All Unit Quizzes (1-4).
- The following Practical Activities (PA)
    - Unit 2: PA 2.1 Emotions around selected art pieces; PA 2.2 Your chosen pieces of art reflecting well-being.
    - Unit 3: PA 3.1 Activities that promote Wellbeing in museums; PA 3.2 Using the Empathy Map.
    - Unit 4: PA 4.1 Preferred Technologies.
    - Unit 5: PA 5.1. Create your assessment grid.

Certification

Upon successful completion of the MOOC, all digital artifacts produced by each participant is assessed so that if validated the participant gets a Certificate of Completion (automatic based on evidence of completing all units).

Apart from typical assessment activities, like quizzes, the IM MOOC implemented a procedure to enable the participation on activities to be automatically inserted into the grading system, without the need of human intervention.

Implementation of the MOOC in the platform

These were the main procedures to implement the course in the MOOC platform:

- Upload of the content and resources from the Blended Learning (bL) course in the MOOC platform
- Web design of the MOOC content and resources
- Upload of the new content and resources in the MOOC platform
- Usability testing and final course evaluation

IM MOOC quality assurance

The MOOC was assessed with OpenupEd Quality Benchmarks (Kear et al., 2016) (see PR7 A3), ensuring that it aligns with European values of equity, quality, and diversity: openness to learners,

digital openness, learner-centred approach, independent learning, media-supported interaction, recognition options, quality focus, and spectrum of diversity. At course level it includes benchmarks such as:

- **Learning outcomes**. Clear statements of intended knowledge and skills.
- **Coherence**. Alignment between learning outcomes, content, teaching strategy, and assessment methods.
- **Interactivity**. Sufficient opportunities for learner engagement and feedback.
- **Relevance and currency**. Up-to-date and accurate course content.
- **Staff competence**. Qualified staff for course development and delivery.
- **Open licensing**. Proper attribution and use of open licenses.
- **Consistency**. Adherence to institutional guidelines for layout and presentation.
- **Assessment**. Balanced and fair formative and summative assessments.
- **Feedback mechanisms**. Regular updates based on stakeholder feedback.

Conclusions

Building up from the experience of the pilot blended course, the IM MOOC design process was based in an enriched xMOOC learning design approach. The MOOC features a self-paced learning path and is task-based. Content delivery combines videos and complementary text-based and multimedia resources. However, attention was given to learner feedback, but solutions use non-human elements in order not to compromise the sustainability of the course initiative. Assessment is included and official certification as well for participants who successfully complete all tasks. A bootcamp autonomous module has been inserted, designed based on the principles of the iMOOC pedagogical model aiming at better integrating participants in the learning environment and dynamics.

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