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Interaction Seeds

Dowel innovation

Inclusive Museums: Addressing Neurodivergence in Cultural Spaces

Domain: Health

Place: Nice, France

Duration: 2 months

Target audience: Designer and General public

Mission

Museums are often considered safe, inspiring spaces where people can learn, explore, and engage with culture in meaningful ways. While this holds true for many, it is not the case for all. For some neurodivergent people with dyslexia, dyspraxia, ADHD, autism, or sensory processing differences, museums can be an overwhelming environment. Crowds, noise, lighting, textures, and traditional educational formats may create significant barriers to access, comfort, and learning.

The Inclusive Museums initiative aims to foster inclusive cultural spaces by integrating neurodiversity into space design education and by raising awareness of cultural institutions.

Engagement activities

This interaction was structured around the following main activities:

- An awareness-raising and training session for design students aimed to help them understand neuroatypical experiences before starting their projects.
- A space design challenge where 1st year space design bachelor students developed inclusive scenographic solutions adapted to an ocean themed exhibition.
- A scientific conference mediated by an artist, transforming complex content into an engaging, imaginative performance.
- Virtual reality experiences simulating dyslexia.

Artistic activities

Art was at the heart of the initiative: artist Janna Zhiri's space-themed storytelling and planetary decor, an inclusive space design exhibition by the students, and a VR immersion all offered creative, accessible ways to experience neurodiversity.

IMPACT

- Emotional trigger
- Engaging interactions with a broad audience on complex topic
- Explore various scenography towards more inclusivity
- Put participants in the shoes of neuroatypical children

WHAT HAPPENED?

Developed in collaboration with a design and applied arts school (École de Condé Nice), a cultural institution (Villa Arson), special education counsellors (POP06), a biomedical start-up specializing in neurodevelopmental diagnostics (O-KIDIA) and an artist (Janna Zhiri), the project introduces a multidisciplinary and participatory model for inclusive museum design.

It began with an awareness workshop at the École de Condé, where O-KIDIA cognitive scientists introduced students and teachers to neurodiversity and its societal challenges. POP06 counsellors then guided first-year space design students through the realities of ADHD, DYS disorders, and sensory differences, complemented by a VR simulation of dyslexia provided by Smile & Learn, an EdTech platform specialised in inclusive learning tools, in collaboration with NaturDive.
Over five weeks, students developed scenographic solutions for an ocean-themed exhibition at Villa Arson, combining creativity, functionality, and inclusivity with regular feedback from their tutors and experts.

The collaboration culminated in a public event held two months after the project began, featuring VR simulations, a scientific talk by O-KIDIA enriched with artistic mediation by Janna Zhiri. The evening closed with six students pitching their projects during a dinner cocktail to soften the ambiance and encourage exchanges and interactions.

PARTICIPANTS ENGAGEMENT

Inclusive design space sprint

Students from École de Condé engaged in a **five-week** design sprint to create scenographic solutions for an ocean-themed exhibition at Villa Arson. Guided by their coordinator, POP06 experts, and the facilitators of the initiative, the students worked independently while receiving targeted feedback during intermediate reviews. They also carried out interviews with people living with ADHD, DYS disorders, and sensory differences, including some participants directly involved in the process. The process balanced creativity and empathy, allowing students to test ideas, refine them, and integrate accessibility as a core design principle. The sprint resulted in **six projects** presented at the public event, where students pitched their concepts to a jury and received direct feedback from experts and the community.

Scientific Conference and artistic facilitation

The scientific conference, led by O-KIDIA researchers, was designed to make complex knowledge accessible and engaging. With the support of artist **Janna Zhiri**, scientific insights were transformed into an imaginative, outer space-themed experience. The artist's mediation brought warmth and creativity to the discussion, blending facts with **storytelling** to highlight neurodivergence not only as a challenge but also as a source of strength. This unique format encouraged the public to connect **emotionally** with scientific knowledge and to reflect on inclusivity in a new way.

Artistic activities

The artistic activities carried out across the phases of the project were central in fostering empathy, understanding, and creative engagement with neurodiversity. These activities combined immersive technology, sensory experiences, artistic facilitation, and public dialogue to deepen awareness and inspire inclusive design.

Immersive VR Video as an Artistic Medium

A groundbreaking component was the use of immersive virtual reality (VR) videos, which allowed participants to experience the sensory and emotional world of neurodivergent individuals firsthand. This VR experience, provided by Smile and Learn, offered a powerful first-person perspective, vividly portraying the challenges faced by a child with dyslexia in a classroom setting. Through the gradual distortion of text and emotional layering–the impatience of teachers, peer mockery, and rising anxiety–the video bridged abstract knowledge and emotional empathy. Participants could viscerally feel what sensory overload and academic struggle mean, thus deepening their emotional connection to neurodivergent experiences. The immersive storytelling elevated the learning process beyond traditional methods, making neurodivergence tangible and relatable.

Experiential and Sensory Activities

Complementing the VR experience, specialised counsellors led hands-on sensory exercises designed to simulate the perceptual differences common among neurodivergent individuals, such as hypersensitivity to sounds, light, and textures. These experiential activities allowed participants to embody altered sensory realities, enhancing their understanding of how neurodivergent visitors perceive space differently. Such insights were critical for students studying space design, equipping them to create more inclusive environments that respond thoughtfully to diverse sensory needs.

Artistic Facilitation in Scientific Communication and Public Engagement

The artist collaborated with researchers during a live conference, using expressive gestures and poetic storytelling to animate scientific content. For example, the poetic reading of “Mia's Magical World and the Imagination Notebook”, a therapeutic tale about a girl channeling ADHD into creativity, helped humanise and celebrate neurodivergence as a source of strength.

The inclusive atmosphere was supported by thoughtful measures like self-soothing kits and clear program guidance, ensuring comfort for all participants.

Attendees experienced the VR installation, viewed student-designed inclusive space projects, and engaged in open conversations about neurodiversity, co-creation, and destigmatising language.

A particularly moving moment was when a young autistic man spontaneously joined the stage during the poetic performance, communicating through movement and gesture, an unplanned but powerful demonstration of inclusion in practice. The event ended with a reception fostering exchange among stakeholders, reinforcing ongoing commitment to neuroinclusive design and collaboration.

Check out artist Janna Zhiri’s portfolio

The VR experience helped me understand what my dyslexic brother feels like.
A student

Impact of the interaction

The Inclusive Museums initiative has created meaningful and lasting change by empowering individuals, transforming institutions, and fostering inclusive cultural ecosystems. For students in space design and scenography, the project provided hands-on experience addressing real-world challenges faced by neurodivergent visitors. During the design sprint, **48 students** explored inclusive scenographic solutions, learning to make accessibility a core principle rather than an afterthought. This approach is shaping how future cultural spaces will be imagined and built.

For museums and cultural institutions, the initiative served as a catalyst for change. Encouraged to move beyond basic compliance, museums are beginning to create environments that truly welcome neuroatypical children and their families. This shift is supported by a local taskforce led by Villa Arson, which brings together museums and cultural institutions to collaborate and sustain inclusive practices at the local and regional levels. After the event, Villa Arson organised a private visit to an ongoing exhibition for a local autism association whose members had attended the event.

The public also benefited significantly from the project. Approximately **80 participants** engaged with immersive VR and interactive experiences that raised awareness of the everyday challenges neurodivergent children face. These encounters encouraged more inclusive attitudes and behaviors in community spaces, educational settings, and personal relationships.

Additionally, the initiative supported research by facilitating new participant engagement for O-KIDIA, strengthening the connection between clinical advancements and community benefits.

Ultimately, the Inclusive Museums initiative bridges design, science, education, and the arts. It encourages empathy, inclusion, and a sustained commitment to accessibility among students, professionals, and the wider public alike.

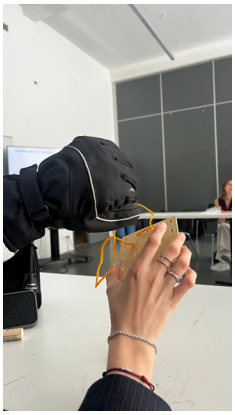
I now feel more informed and open to others, and I would like to explore how this initiative could grow beyond its current scope.
Director of Villa Arson's art centre

Good practices for replication

For successful replication, DOWEL provides the following tips:

- **Encourage interdisciplinary collaboration**. Bringing together experts from multiple domains fosters innovative, human-centered solutions by combining unique insights for more holistic accessibility approaches. Then, start with small objectives, allow time for trust-building, and involve all partners equally in co-creation and decision-making so their expertise and perspectives shape the project. It will also ensure they feel central to the project's success.

- **Leverage local networks and institutions**. Partnering with established regional organisations like Villa Arson builds trust and mobilises resources.



- **Incorporate immersive, empathy-building tools**. Using virtual reality and similar experiences creates emotional connections to the challenge, deepening understanding among the stakeholders. A facilitator should guide the VR experience, explain its purpose, and host the debrief - fostering dialogue and shared reflection while helping participants feel comfortable and confident engaging with the technology.

- **Bridge science and sensory learning**. Hands-on workshops led by special education professionals complement theory, enabling students to physically experience perceptual differences and encouraging reflective design.

Resources

The total budget for the initiative was **€7,200**, covering various essential components. Key expenses included workshop interventions and experts involvement (€2,500), artist mediation (€2,000), VR headset rental (€1,500) to deliver immersive experiences and student rewards (€250) to recognize outstanding contributions. Additional costs encompassed catering (€935) for the public event. This breakdown offers a practical overview for those looking to replicate the project within a similar financial framework.

Contact for more information:
yassamin.kouraichi@dowel.eu

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