

# Combining neurodivergent needs and design : How to create sensory inclusive workspaces for neurodiverse people ?

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<b>Introduction</b>	<b>5</b>
<b>Part 1 : Sensory processing disorder</b>	<b>8</b>
Definition : what is sensory processing disorder ?	9
Examples of sensory regulation/modulation	11
How to create more accessible work environments for adults with SPD ?	12
<b>Part 2 : Sensory rooms</b>	<b>14</b>
Definition : what are sensory rooms ?	15
The history of sensory rooms	16
Can adults benefit from sensory rooms ?	17
Characteristic elements of a sensory room	18
Analysis and comparison of different sensory room designs	22
Examples of neurodiverse design in the workspace	34
<b>Conclusion</b>	<b>41</b>
<b>Bibliography</b>	<b>44</b>

# Introduction

One out of 5 people are estimated to be neurodivergent with conditions such as Autism-Spectrum Disorder (ASD), Attention-deficit/hyperactivity Disorder (ADD/ADHD), Dyslexia or Dyspraxia (Doyle 2020<sup>1</sup>). That is 20% of the adult population who are neurodiverse and hence who have particular sensory needs. Even though neurodivergent individuals are factually considered a minority, it is still important to include them in society and there is a growing understanding of how to create safe inclusive environments. Research on neurodiverse design has mainly been focused on school environments, public spaces and commercial environments (Kravetz 2017<sup>2</sup>). But what about the working adult neurodiverse population and their work environment ? This thesis explores the intersection of neurodivergent needs and design, with a focus on creating sensory inclusive workspaces.

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<sup>1</sup> Doyle, Nancy. "Neurodiversity at Work: A Biopsychosocial Model and the Impact on Working Adults." *British Medical Bulletin* 135, no. 1 (September 1, 2020): p.112.

<sup>2</sup> Kravetz, Lily, David Comberg, and Margaret Souders. "Designing the Environment to Support the Sensory Needs of Individuals with Autism Spectrum Disorder: A Case Study of "The Quiet Room" at the Children's Hospital of Philadelphia." *University of Pennsylvania*, (2017).

Sensory processing disorder (SPD), a condition characterised by difficulties in processing and responding to sensory stimuli, is one aspect of neurodiversity that significantly impacts individuals' experiences in their everyday lives. Understanding SPD and its implications is fundamental to creating more accessible and inclusive work environments. To understand how to achieve this, we will explore the concept of Sensory Rooms, their designs, and how to integrate them in modern workspaces.

The first part of this thesis delves into the notion of sensory processing disorder, providing a comprehensive understanding of what it entails and examples of sensory regulation and modulation techniques used by individuals to manage sensory input. Furthermore, we will explore strategies for creating more accessible work environments for adults with SPD, highlighting the importance of considering sensory needs in workspace design to promote comfort, productivity, and well-being.

The second part focuses on sensory rooms as a design solution to address the sensory needs of adults in workspaces. It includes defining what sensory rooms are,

tracing their historical development, and examining their potential benefits for adults.

Then, we will review various sensory room designs to understand how they started and how they can be modulated. Finally, we will see examples of neurodiverse design initiatives in workspaces that support individuals with diverse sensory profiles.

# Part 1 : Sensory Processing Disorder

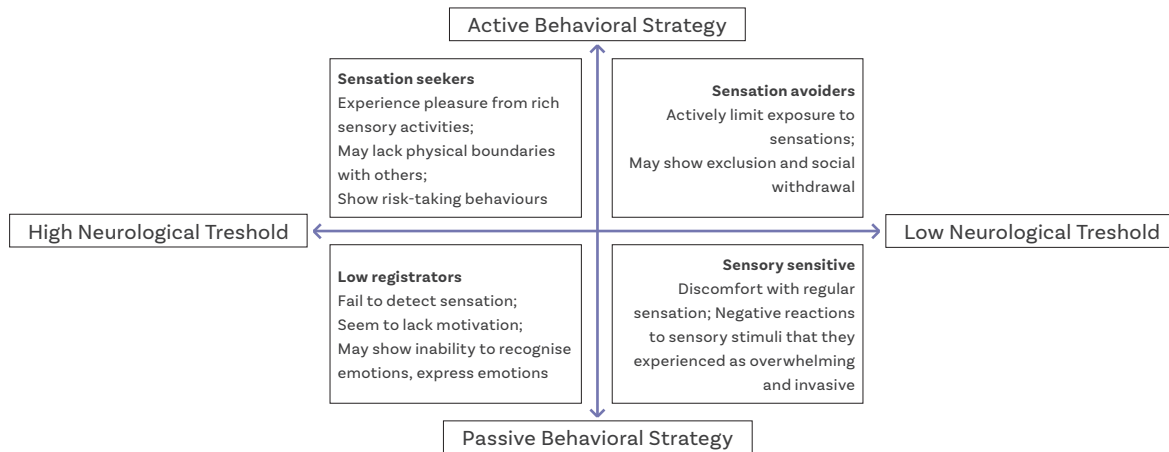
## Definition

Sensory processing disorder (SPD) is a condition where the brain processes sensory input in a different way than neurotypical brains, “*difficulty organising and using sensory information from the external environment*”<sup>1</sup>, and this can affect any of the senses (visual, auditory, tactile, olfactory, gustatory, proprioceptive or vestibular perception). SPD is a spectrum, just like Autism Spectrum Disorder (ASD), which means it can vary a lot between individuals, or even within one individual : “*In ASD, sensory differences are characterised by hypo- and hypersensitivity to stimuli. An individual can exhibit both hyper- and hyposensitivities within and across sensory domains, and can have variations in sensitivity levels on any given day.*”<sup>2</sup> This means that one individual might be hypersensitive to light and seeks dim-lit environments while another person might be hyposensitive and seek brightly lit spaces.

<sup>1</sup> Gomez, Ivan Neil, and Kim Gerald Medallon. “Assessing Sensory Processing in Adults.” *Current Developmental Disorders Reports* 9, no. 3 (June 30, 2022): p.63.

<sup>2</sup> Kravetz, Lily, David Comberg, and Margaret Souders. “Designing the Environment to Support the Sensory Needs of Individuals with Autism Spectrum Disorder: A Case Study of “The Quiet Room” at the Children’s Hospital of Philadelphia.” *University of Pennsylvania*, (2017): p.5.

The graphic below shows Dunn's (1997) model of sensory processing: the horizontal axis is the neurological threshold (the amount of stimuli needed for a neuronal system to respond to sensory input) and the vertical axis is how the person reacts to these thresholds.



**Figure 1:** Model of Sensory Processing Patterns (Dunn, 1997)

It is important to note that not every individual with SPD inherently has other neurodivergent conditions such as ASD, ADHD or other, but they do often overlap.

## ***Example of sensory regulation/modulation***

As we learned above, people with SPD can either seek or avoid certain sensory inputs. How does this apply in day to day life ? First, we can take the example of going grocery shopping, which can be a challenging situation for individuals with SPD, especially those who are sensory avoidant. A supermarket is extremely stimulating, first with the potential crowds of people which can trigger social anxiety. Then, in the space itself, there are fluorescent lights, which emit a humming and clicking noise, and sudden sounds such as announcements on the loudspeaker or ads playing. The metal carts crashing into each other, the sometimes narrow aisles forcing physical contact with others, the music as constant background noise, all of these elements can become extremely debilitating to someone having difficulty processing sensory input. To counter this, one can use sound-cancelling earplugs, light blocking glasses and avoid rush hour when going to the shops.

Second, workspaces or classrooms are also demanding environments, this

time for sensory seeking individuals, because of the constraint of having to sit in the same place for long periods of time, without a lot of stimulation, and all while being quiet. People who need stimulation, and/or relief, often use stimming as an outlet, like tapping on a surface, playing with an object or humming and singing to themselves. These behaviours are not considered to be appropriate for certain contexts and this creates even more restraints and frustrations for people with SPD or other disorders.

### ***How to create more accessible work environments for adults with SPD ?***

First of all, one must start by learning about SPD and neurodiverse conditions to be able to understand their behaviour and accommodate them in a shared environment. This allows neurodiverse individuals to be themselves and use their own sensory modulation techniques without fear of being judged or penalised at work. Design wise, since SPD is such a diverse spectrum, it is essential to offer just as diverse types of workspaces. Everyone has a different way of working and being efficient, for some

a classic cubicle desk and chair is ideal but for others this can be extremely uncomfortable. For this reason, accessible workspace design needs to start at concept level and shouldn't be a detail to be thought of after completion of the space. Weber (2022) states *“the ultimate aim is to design workspaces that are naturally inclusive and don't require adjustments per se as they are born out of an ableist perspective. However, to do so, we need much more and better empirical evidence to enable this ‘evolution’ of workplace design.”*<sup>1</sup>

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<sup>1</sup>“NEURODIVERGENT WORKERS AND THE MODERN WORKPLACE.” *Leader to Leader* 2023, no. 108 (April 1, 2023): p. 64.

## Part 2 : Sensory Rooms

## **Definition**

A sensory room is a space with a controlled environment that enables a safe experience to any user seeking sensory regulation. This can be done through the space in itself thanks to soft surfaces, dimmed lighting, sound isolation, and with the help of sensory objects such as fidget toys, soothing visuals, and weighted blankets for example.

Multisensory Environments (MSE), *“room with equipment designed to stimulate or calm the senses using different sensory modalities”*, need to be adaptable for each user which is why there is often a vast array of equipment for people to choose from and controllable lights.

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<sup>1</sup> Giarelli, Ellen and Kathleen M. Fisher. 2016. “The Impact of the Sensory Environment on Care.” In *Integrated Health Care for People with Autism Spectrum Disorder*. Charles C Thomas Publisher, (2016), 69-87.

## ***The history of sensory rooms***

Sensory rooms started in the 1970's thanks to two Dutch therapists; Jan Hulsege and Ad Verheul<sup>1</sup>. They worked with patients with severe disabilities in an institution and created a sensory space, which they called Snoezelen, to allow stimulation in a safe environment. It showed promising results from the beginning.

Starting as a niche therapeutic method in health institutions, it evolved into being integrated into more hospitals, care centres, rehabilitation facilities and schools. Research into SPD and ASD also grew but it remained focused on children (Brown, 2001<sup>2</sup>) which makes it hard to estimate how the adult population is affected and how to provide for their needs as well.

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<sup>1</sup>“History, Snoezelen Multi-Sensory Environments,” consulted on 09.05.2024, n.d. <https://snoezelen.info/history/>.

<sup>2</sup> Brown, Catana, et al. “The adult sensory profile: Measuring patterns of sensory processing.” *The American Journal of Occupational Therapy* 55.1 (2001): 75-82.

## ***Can adults benefit from sensory rooms ?***

When researching sensory rooms, one can find that they look like childish playrooms with toys scattered around and strange whimsical visuals put together. Moreover, most of the individuals showcased on sensory room equipment websites are children. And indeed, they are a main part of the target group: *“Previous research suggests that around 10–20% of children may display SPD-related symptoms.”*<sup>1</sup>. But how about adults ? There is evidence that indicates that *“SPD may also occur in healthy adults and those with neurological and cognitive conditions.”*<sup>2</sup>. It is clear that sensory rooms can be beneficial for adults as well. Since the 70’s, MSE’s have evolved and become more common in many diverse environments. They have however remained centred around children and their design hasn’t changed very much either. It would be essential to have more representation of neurodiverse adults in sensory design.

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<sup>1</sup> Gomez, Ivan Neil, and Kim Gerald Medallon. “Assessing Sensory Processing in Adults.” *Current Developmental Disorders Reports* 9.3 (2022): p.63.

<sup>2</sup> *Ibid.*, p. 64

## **Characteristic elements of a sensory room**

To properly analyse and compare various sensory room designs, here are characteristic elements found in Multi Sensory Environments (Eijgendaal, 2010<sup>1</sup>).

### Seating

Sensory rooms offer a diverse selection of seating arrangements to cater to individual comfort preferences. These may include suspended chairs, massage chairs, rocking chairs, bean bags, waterbeds, and swings, each designed to induce relaxation and ease.

### Auditory equipment

Sensory rooms incorporate auditory devices to enrich the environment with stimulating sounds. These include sound systems, white noise machines, and tactile

1 Eijgendaal, M., A. Eijgendaal, S. Fornes, J. Hulsegge, K. Mertens, P. Pagliano, and L. Vogtle. "Multi Sensory Environment (MSE/ Snoezelen)-A Definition and Guidelines." *Rehabilitation* 24, no. 4 (2010): 175-184.

objects emitting soothing auditory cues, contributing to the immersive sensory experience.

### Visual equipment

An essential aspect of sensory rooms is their visually captivating elements. These include effects projectors, dynamic wall projections, colour-changing room lights, bubble tubes, fibre optic strands, mirror balls, spotlights, acrylic mirrors, infinity panels, and lava lamps.

### Tactile and weighted equipment

Sensory rooms provide proprioceptive stimulation such as weighted blankets and equipment, fidget and tactile toys, hand-held massage devices, and textured walls, facilitating tactile stimulation and a sense of security.

### Olfactory items

Some sensory rooms incorporate aromatherapy to enhance the sensory experience. These may feature essential oil diffusers and scented play dough.

### Gustatory items

Certain sensory rooms may offer a selection of snacks with a variety of textures and flavours, ranging from chewy to crunchy, sour to sweet, providing a pleasurable and stimulating gustatory experience.

### Safety features

Safety is essential in sensory room design. This includes padded floors and walls to cushion impacts, furniture with rounded contours for injury prevention, and materials chosen for easy cleaning to maintain a hygienic environment.



## *Analysis and comparison of different sensory room designs*

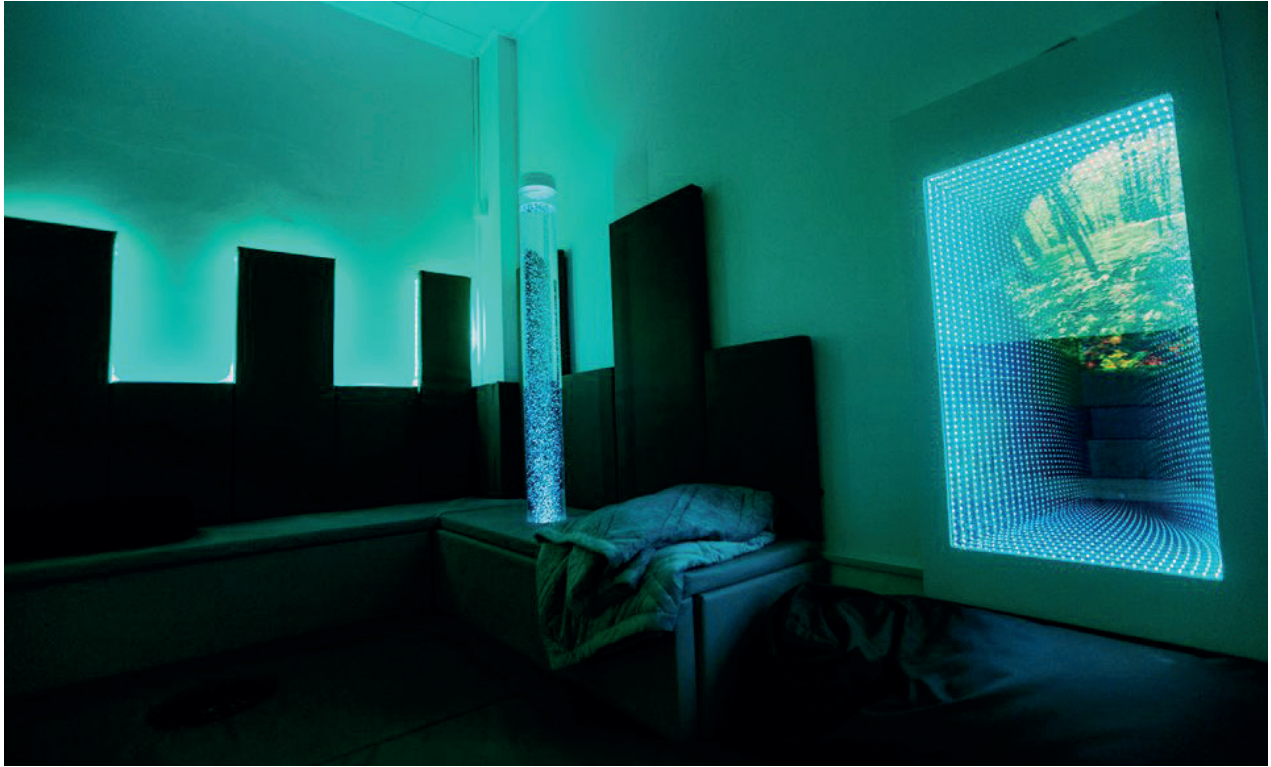


**Figure 2:** Snoezelen room built in 1997

## Sensory rooms 30 years ago, W. Ross Macdonald School

In 1997, W. Ross Macdonald School for deaf and blind children, in Ontario, Canada, renovated a simple alcove into a Snoezelen Room which was revolutionary at the time. These images captured in 2006 offer a glimpse into the room's features, showcasing padded flooring, fibre-optic lighting, suspended chairs, projectors, massage pads, aromatherapy stations, and bubble tubes enhanced by mirrored surfaces.

It is interesting to notice throughout this analysis that this early example of a sensory room already has all the elements that are still now commonly found on sensory equipment websites. One apparently doesn't change a winning team, even if it's been the same for more than 30 years.

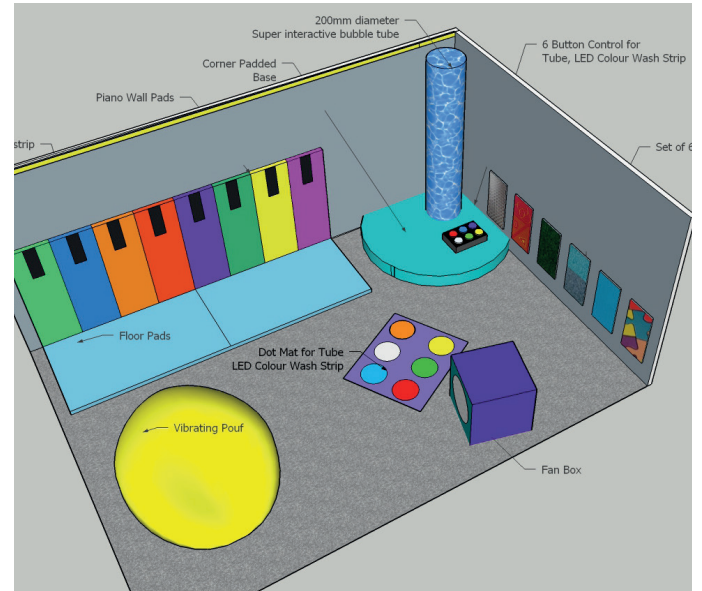
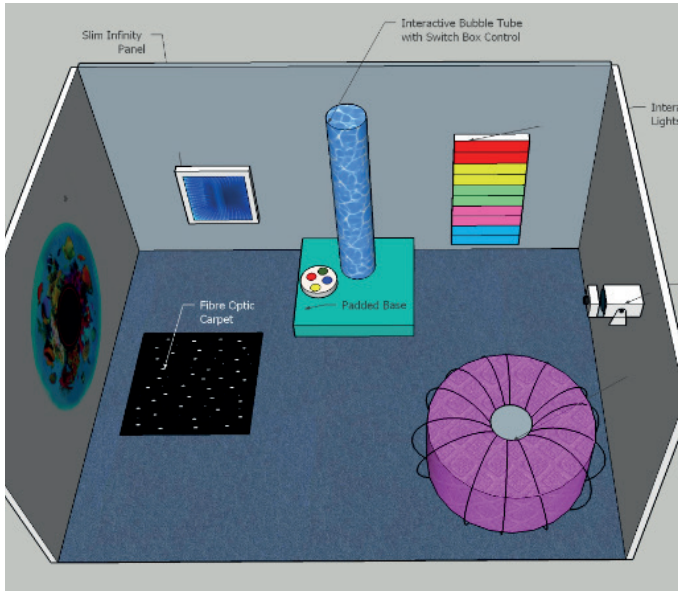


**Figure 3 :** Sensory Room built in 2022

## Sensory room today, Bristol SU 2022

This is an example of a modern sensory room in Bristol University, England. It features controllable lights with different settings, a bubble tube, a projector with a variety of calming slides, controllable effects on ceiling tiles, interactive sound features, soft seating, padded floors, weighted blankets and black out blinds.

The main difference with the previous example would be the popularisation of LED lights which made creating a modular light atmosphere easier, more energy-efficient and safer.



**Figure 4 :** “The Complete Sensory Room Package” (left) and “Super Interactive Sensory Room Package” (right)

## Sensory room packages

It is very easy to find online shops specialised in sensory room equipment. On the website Sense Sensory, they offer Multi Sensory Room Packages for anybody looking to create a sensory room. A basic package, “The Complete Sensory Room Package”, starts at approximately 5700 CHF and the most complete package, “Super Interactive Sensory Room Package” is at least 12’000 CHF.

For a basic, and pretty unaesthetic, design it is not very affordable. There are of course cheaper, and more environmentally friendly, options for creating your own sensory space: soundproofing, avoiding harsh fluorescent lighting, getting controllable LED lights, placing rugs, textured pillows and blankets, and crafting a tactile board with different textures and materials.



**Figure 5 :** Child's sensory bedroom in Englewood, New Jersey

## Custom sensory rooms

If one desires a more personalised option, and has the budget for it, this independent designer, Beatrice Tokayer, specialises in sensory design for residential spaces. One can notice the small amount of bright colours, there is mostly beige, whites and browns. It is much more refined, more adult even though it is a child's bedroom, but the textures look soft and cosy.

This sensory space, compared to the first examples, is much more conceptual. The padded flooring is replaced with soft rugs, the soft lighting consists of fairy lights and there is a fidget board made with light switches and door locks.

Another main difference is that the designer was able to create the space in different stages to allow the child to get used to it progressively. With the input of the parents, they removed the swing and the teepee after noticing that the child didn't need them to self-regulate. They took into account the child's unique needs and preferences while making sure to let them adapt slowly to their new environment.



**Figure 6 :** Two variants of the Sensory Nook

## Mobile Sensory Pods

The organisation *Nook* started by designing mobile pods intended for offices to create privacy in open space environments and facilitate interaction. They have launched a new line of products called “Sensory Pods”. To achieve this, they have added to their regular pod design interior padding, vibration seating, a scent system, LED picture light panel and colour spectrum lighting, fibre optic wall carpet, sound system, light tube, fibre optic strings, infinity tunnel. It is intended for workspaces, classrooms or any other public space, designed for neurodiverse people, no matter their age.

While the sensory equipment and style is similar to what is found in a classic sensory room, it is innovative in the way it can be easily integrated to any environment. It is also fully customisable. On their website, they do not primarily target children but include neurodiverse people as a whole.



**Figure 7:** "HUSH" Luxurious biophilic felt pods

## Designer sensory space

This is an example of a sensory space as a unique object by designer and artist Freyja Sewell. It is a luxury sensory tent made out of felt which is naturally noise cancelling. Features include changeable LED lights, sound system, scent pads and soft floor seating.

This design shows how one can appropriate a concept, originally intended for neurodiverse people, and try to present it as something new and trendy by naming them Sensory Concentration Spaces. One pod is sold for more than 5000 CHF.

## *Examples of neurodiverse design in the workspace*



**Figure 8:** “Hubba Bubba Room” in Vipps office in Norway

In the previous chapter we analysed and compared different sensory room designs, now we will see how inclusive sensory environments for neurodivergent people can emerge from a specific room and apply in architecture in general. Here are some examples of neuroarchitecture.

This office in Norway was created by Radius Design. The goal of the design was to bring employees together from different branches and create diverse work environments in one space. The company's Chief Innovation Officer Narve Hansen explains *"(...) In order to be efficient, you can't sit in just one place, and work like a machine. You need to be able to be laid back, go to other places where you can actually sit down and then go back and be more focused on one task again."*<sup>1</sup>

This design, which they named the "anti-office", is of course intended to increase productivity but it turns out to also be very inclusive for neurodivergent employees. Giving employees the option of various workspaces helps them to not feel constricted to one, possibly ill suited, way of work.

<sup>1</sup> "Exciting office interior design project for Norwegian payment service Vipps," consulted on 09.05.2024, n.d.  
<https://focus.flokk.com/exciting-office-interior-design-project-for-norwegian-payment-service-vipps>



**Figure 9 :** *Private booths and colour coded spaces in the BBC headquarters*

The BBC headquarters in Cardiff were designed by Sheppard Robson and Foster+Partners. The goal was to create a neuro-inclusive design and to achieve this they focused on the concept of wayfinding to help visitors and employees easily map out a safe route to their intended destination in the 26'010 square metre facility. Helen Berresford, a partner in Sheppard Robson's London office and head of the practice's interior design group explains : *“A person entering the Centre can go directly to a building plan, view their objective on a simple graphic complete with landmarks, map out an “open” or “safe” path, and rediscover their route at signposts along the way. Meeting rooms, each with its own colour, are stacked on bridges visible from the entrance, and immediately obvious staircases provide a clear path of travel.”*<sup>1</sup> Like the previous examples, they also offer many different types of spaces employees can choose to work from, from small private booths to open collaboration spaces.

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<sup>1</sup>“Continuing Education: Design for Neurodiversity,” consulted on 09.05.2024, n.d. <https://www.architecturalrecord.com/articles/14931-continuing-education-design-for-neurodiversity>



**Figure 10 :** The “loud room” and the nap cabins in the Grammarly offices

The Grammarly Office in Kiev was designed by Balbek Bureau. Their intention was to have a variety of versatile spaces, from open spaces, to “Skype-booths” and even nap cabins. One particular room is a soundproof “loud room” where one can play musical instruments or watch videos, this is ideal for neurodivergent employees in need of stimulation. The designer explained their concept *“A positive work-life balance for the employees was created by the extensive use of natural wood, including creative reuse of oak throughout the office space, multiple references to the outdoors in the lounge areas, and the abundance of natural light.”*<sup>1</sup>

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<sup>1</sup>“Balbek Bureau, Grammarly” consulted on 09.05.2024, n.d. <https://www.balbek.com/grammarly-kyiv>

Through all these examples, we can understand that currently the acceptance of neurodivergent workers relies on how useful and productive they are for the company. Clara Weber, who co-wrote *Physical workplace adjustments to support neurodivergent workers: A systematic review*, says : “Without wanting to sound too cynical, sometimes it appears ‘trendy’ for businesses to have somehow considered neurodiversity in their equality, diversity, and inclusion (EDI) programs.”<sup>1</sup> However, even though the intentions can be purely capitalistic, it is still a step in the right direction to start having inclusive workspaces, we can only hope it will extend to many other areas in society.

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<sup>1</sup>“NEURODIVERGENT WORKERS AND THE MODERN WORKPLACE.” *Leader to Leader* 2023, no. 108 (April 1, 2023): p. 64.

# Conclusion

Throughout the exploration of neurodivergent needs and design, this thesis has delved into the integration of sensory rooms for adults in workspaces, aiming to create more inclusive and accommodating environments. With around one in five individuals being neurodivergent, it's crucial to understand and cater to their unique sensory needs to foster a truly inclusive society.

Sensory processing disorder (SPD) is a focal point in understanding neurodivergent needs, highlighting the diverse ways individuals process and respond to sensory stimuli in various environments. After examining examples of sensory regulation and modulation, we analysed strategies for creating accessible work environments for adults with SPD.

The concept of sensory rooms appeared as a promising solution to address the sensory needs of adults in workspaces. Tracing the history of sensory rooms, exploring their potential benefits for adults, and analysing various sensory room designs

helped understand the way they can be integrated in a more modern way in design. From traditional sensory rooms to innovative designs, like sensory pods, the spectrum of possibilities proved the versatility and adaptability of sensory rooms in diverse environments.

Furthermore, examples of neurodiverse design in workspaces illustrated how inclusive sensory environments can manifest beyond specialised rooms, permeating architecture and spatial design. From the Vipps office in Norway to the BBC's Cymru Wales Broadcast Centre in Cardiff and the Grammarly office in Kiev, these cases showed how it is possible to offer diverse workspaces and accessible solutions to accommodate neurodivergent individuals.

In conclusion, the integration of sensory rooms and neurodiverse design principles in workspaces represents a crucial step towards creating inclusive, supportive, and empowering environments for all individuals. While the motivations for incorporating neurodiversity in workplace design may vary, the ultimate goal remains the same: to foster a culture of acceptance, understanding, and inclusion where neurodivergent

individuals can thrive and contribute their unique perspectives and talents.

As society continues to evolve, it is imperative that the principles of neurodiversity and inclusive design continue to inform and shape our built environment, ensuring that workspaces and other environments are accessible and accommodating to individuals of all neurotypes. Through ongoing research, advocacy, and implementation of inclusive design practices, we can strive towards a more equitable and inclusive society where everyone has the opportunity to reach their full potential. Most importantly, we must listen and give a voice to those affected by these issues and allow them to give their input. As James Charlton states : “*Nothing About Us Without Us*”<sup>1</sup>.

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<sup>1</sup> Charlton, James I. “*Nothing About Us Without Us: Disability Oppression and Empowerment.*” 1st ed., University of California Press, (1998).

# Bibliography

## *Academic journals*

Adams-Leask, Karen, et al. "The benefits of sensory modulation on levels of distress for consumers in a mental health emergency setting." *Australasian Psychiatry* 26, no. 5 (2018): 514-519.

Brown, Catana, et al. "The adult sensory profile: Measuring patterns of sensory processing." *The American Journal of Occupational Therapy* 55, no. 1 (2001): 75-82.

Brown, Stephen, Rohit Shankar, and Kathryn Smith. "Borderline personality disorder and sensory processing impairment." *Progress in Neurology and Psychiatry* 13, no. 4 (2009): 10-16.

Crane, Laura, Lorna Goddard, and Linda Pring. "Sensory processing in adults with autism spectrum disorders." *Autism* 13, no. 3 (2009): 215-228.

Doyle, Nancy. “Neurodiversity at Work: A Biopsychosocial Model and the Impact on Working Adults.” *British Medical Bulletin* 135, no. 1 (September 1, 2020): 108-25.

Eijgendaal, M., A. Eijgendaal, S. Fornes, J. Hulsegge, K. Mertens, P. Pagliano, and L. Vogtle. “Multi Sensory Environment (MSE/Snoezelen)–A Definition and Guidelines.” *Rehabilitation* 24, no. 4 (2010): 175-184.

Giarelli, Ellen and Kathleen M. Fisher. “The Impact of the Sensory Environment on Care.” In *Integrated Health Care for People with Autism Spectrum Disorder*. Charles C Thomas Publisher, (2016): 69-87.

Gomez, Ivan Neil, and Kim Gerald Medallon. “Assessing Sensory Processing in Adults.” *Current Developmental Disorders Reports* 9, no. 3 (June 30, 2022): 63–67.

Kravetz, Lily, David Comberg, and Margaret Souders. “Designing the Environment to Support the Sensory Needs of Individuals with Autism Spectrum Disorder: A Case Study of ‘The Quiet Room’ at the Children’s Hospital of Philadelphia.” University of Pennsylvania, (2017).

Marwati, Annisa, et al. “Visual-sensory-based quiet room: A study of visual comfort, lighting, and safe space in reducing maladaptive behaviour and emotion for autistic users.” *Journal of Accessibility and Design for All* 13, no. 1 (2023): 69-93.

Mills, Caroline J., et al. “Evaluating a virtual reality sensory room for adults with disabilities.” *Scientific Reports* 13, no. 1 (2023): 495.

“NEURODIVERGENT WORKERS AND THE MODERN WORKPLACE.” *Leader to Leader* 2023, no. 108 (April 1, 2023): 62-64.

## **Books**

Böhme, Gernot et al. “Architectural Atmospheres: On the Experience and Politics of Architecture.”  
Basel: Birkhäuser, 2014.

Boys, Jos. “Disability, Space, Architecture: A Reader.” London: Routledge, 2017.

Charlton, James I. “Nothing About Us Without Us: Disability Oppression and Empowerment.” 1st ed.,  
University of California Press, 1998.

Roe, Jenny, and Layla McCay. “Restorative Cities: Urban Design for Mental Health and Wellbeing.”  
London: Bloomsbury Visual Arts, 2021.

## **Webpages**

“Balbek Bureau, Grammarly.” Consulted on the 9th May 2024.

<https://www.balbek.com/grammarly-kyiv>

Ferris, R. April 29th, 2019. “Exciting office interior design project for Norwegian payment service Vipps.” Consulted on the 9th May 2024.

<https://focus.flokk.com/exciting-office-interior-design-project-for-norwegian-payment-service-vipps>

Heinz, A. August 24th, 2021. “Sensory Room Ideas for Children With Autism.” Consulted on the 9th May 2024.

<https://www.apartmentguide.com/blog/sensory-room-ideas/>

“History, Snoezelen Multi-Sensory Environments.” Consulted on the 9th May 2024.

<https://snoezelen.info/history/>

Ingram, T. May 5th, 2021. “Mental Wellness: The places changing how we think and feel.” Frame.

Consulted on the 1st May 2024.

<https://frameweb.com/article/mental-wellness-the-places-changing-how-we-think-and-feel>

John, L. March 17th, 2017. “Multi-sensory environments and their use by people with autism.”

Altogether Autism Journal Issue 1. Consulted on the 29th February 2024.

<https://www.altogetherautism.org.nz/multi-sensory-environments-use-people-autism/>

Logan, K. January 1st, 2021. “Continuing Education: Design for Neurodiversity.” Consulted on the 9th

May 2024.

<https://www.architecturalrecord.com/articles/14931-continuing-education-design-for-neurodiversity>

Morris, A. August 3rd, 2023. “It’s a busy, noisy, bright world. For some, going out is hard.” Washington Post. Consulted on the 29th February 2024.

<https://www.washingtonpost.com/wellness/2023/08/03/sensory-friendly-store-hours-disorders/>

Poletto, C. February 17th, 2023. “Is Designing for Neurodiversity a Part of Your Practice Yet? Here’s Why It Should Be.” Architectural Digest. Consulted on the 1st May 2024.

<https://www.architecturaldigest.com/story/is-designing-for-neurodiversity-a-part-of-your-practice>

Sithamparanathan, M. April 30th, 2022. “How to Make a Music Festival Sensory-Friendly.” Sensory Friendly Solutions. Consulted on the 29th February 2024.

<https://www.sensoryfriendly.net/how-to-make-a-music-festival-sensory-friendly/>

Vershbow, S. September 24th, 2021. “Let’s Ignore Each Other in the Same Room, Why parallel play is good for grown-ups, too.” New York Times. Consulted on the 29th February 2024.

<https://www.nytimes.com/2021/09/24/well/live/parallel-play-for-adults.html>

## **List of Figures**

**Figure 1:** Model of Sensory Processing Patterns (Dunn, 1997)

“Movement Matters: Developing School Based Occupational Therapy Practice in Irish Post Primary Schools.”, Scientific Figure on ResearchGate. Consulted on the 10th May 2024.

[https://www.researchgate.net/figure/Model-of-Sensory-Processing-Patterns-Dunn-1997\\_fig4\\_360082452](https://www.researchgate.net/figure/Model-of-Sensory-Processing-Patterns-Dunn-1997_fig4_360082452)

**Figure 2:** Snoezelen room built in 1997

Fleur-Ange Lamothe, Flickr. Consulted on the 10th May 2024.

<https://flic.kr/p/ugtrF>

**Figure 3:** Sensory Room built in 2022

Bristol SU | Sensory Room. Consulted on the 10th May 2024.

<https://www.bristolsu.org.uk/venues-and-shops/sensory-room>

**Figure 4 :** “The Complete Sensory Room Package” (left) and “Super Interactive Sensory Room Package” (right)

Sense Sensory, Sensory Room Packages. Consulted on the 10th May 2024.

<https://www.sensesensory.co.uk/product-category/sensory-room-packages/>

**Figure 5 :** Child’s sensory bedroom in Englewood, New Jersey

BRT Interior Design. Consulted on the 10th May 2024.

<https://brtinteriordesign.com/sensory-bedroom/>

**Figure 6 :** Two variants of the Sensory Nook

“Sensory Nook acoustic pods by Nook”, Dezeen. Consulted on the 10th May 2024.

<https://www.dezeen.com/2022/10/20/sensory-nook-acoustic-pods-nook-dezeen-showroom/>

**Figure 7 :** “HUSH” Luxurious biophilic felt pods

“Pods have quietly become a standard part of our open-plan interior landscape”, Freyja Sewell, Dezeen. Consulted on the 10th May 2024.

<https://www.dezeen.com/2023/12/07/freyja-sewell-pods-opinion/>

**Figure 8 :** “Hubba Bubba Room” in Vipps office in Norway

Ferris, R. April 29th, 2019. “Exciting office interior design project for Norwegian payment service Vipps.” Consulted on the 9th May 2024.

<https://focus.flokk.com/exciting-office-interior-design-project-for-norwegian-payment-service-vipps>

**Figure 9 :** Private booths and colour coded spaces in the BBC headquarters

Logan, K. January 1st, 2021. “Continuing Education: Design for Neurodiversity.” Consulted on the 9th May 2024.

<https://www.architecturalrecord.com/articles/14931-continuing-education-design-for-neurodiversity>

**Figure 10 :** The “loud room” and the nap cabins in the Grammarly offices

“Balbek Bureau, Grammarly.” Consulted on the 9th May 2024.

<https://www.balbek.com/grammarly-kyiv>





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