

Let's Meet at ANDY's! A journey to designing an ideal study environment for neurodiverse students.

Author: Madeline van der Linden, S2488701

Supervisor: Jelle van Dijk

More and more students with disabilities are enrolling in higher education, but traditional teaching and assessment methods present challenges for neurodiverse students. Students with ASD (short for Autism Spectrum Disorder), AD(H)D (short for Attention Deficit Hyperactivity Disorder), and dyslexia may encounter challenges in managing academic demands due to inadequate support and inflexibility from lecturers. AD(H)D can impact time management, concentration, and teamwork, while ASD may cause difficulties in multitasking and social interactions. Dyslexia affects literacy and organizational skills, posing communication and self-esteem hurdles. Neurodiverse students, especially those with ASD, often confront stigma and higher education obstacles, leading to stress and anxiety for students and parents. This underscores a persistent disability perception gap, with one in three individuals holding negative stereotypes, exacerbating challenges for neurodiverse students.

The University of Twente has implemented several initiatives, both directly and indirectly, aimed at supporting neurodiverse students during their academic years. While these initiatives, the support system and the testing of the digital infrastructure may represent a positive step towards supporting neurodiverse students at University of Twente, the physical needs in terms of workplace design are overlooked. This undergraduate thesis therefore aims to address the central question: "How can we co-create a physical study environment that meets the needs and wishes of neurodiverse students at the University of Twente and stimulates community building?"

A survey, co-design workshop and co-evaluation were conducted with the target audience to gain more knowledge about their needs and wants. The target audience is neurodiverse students who are either officially diagnosed or self-identify as neurodiverse. AD(H)D, dyslexia and ASD emerged as the main areas of focus for the design of the learning environment, although consideration of other neurological conditions is also essential. Their responses provided the basis for a focus on the learning environment, emphasizing the need for a learning environment that promotes motivation, concentration, productivity and minimizes the presence of distractions.

Based on the existing literature, it became clear that the involvement of neurodiverse students from the beginning of the design process is crucial in order to create a study environment that is closely aligned with their needs and design preferences. The results of the literature review, co-design workshop and survey revealed a wide range of preferences and needs of neurodiverse individuals. Finally, a final grid design for the neurodiversity study environment was created. The grid design includes three zones which are inspired by nature, namely the low stimulation zone (The Desert), the medium stimulation zone (The Ocean) and the high stimulation zone (the Rainforest). The high stimulating environment is connected to the breakroom.

Within these zones, there is a variety in workplace design. The final study environment is designed to embrace diversity, offering flexibility, variability and accommodation for different needs and preferences. Figure 1 shows the final design of the neurodiversity study environment. While the final neurodiversity study environment serves as inspiration for efforts to enhance inclusivity at the University of Twente, it's essential to recognize that continued efforts are necessary. These efforts should focus on improving the physical and digital infrastructure of the University of Twente and involving neurodiverse students in the design process to create a more supportive environment.

Public Summary

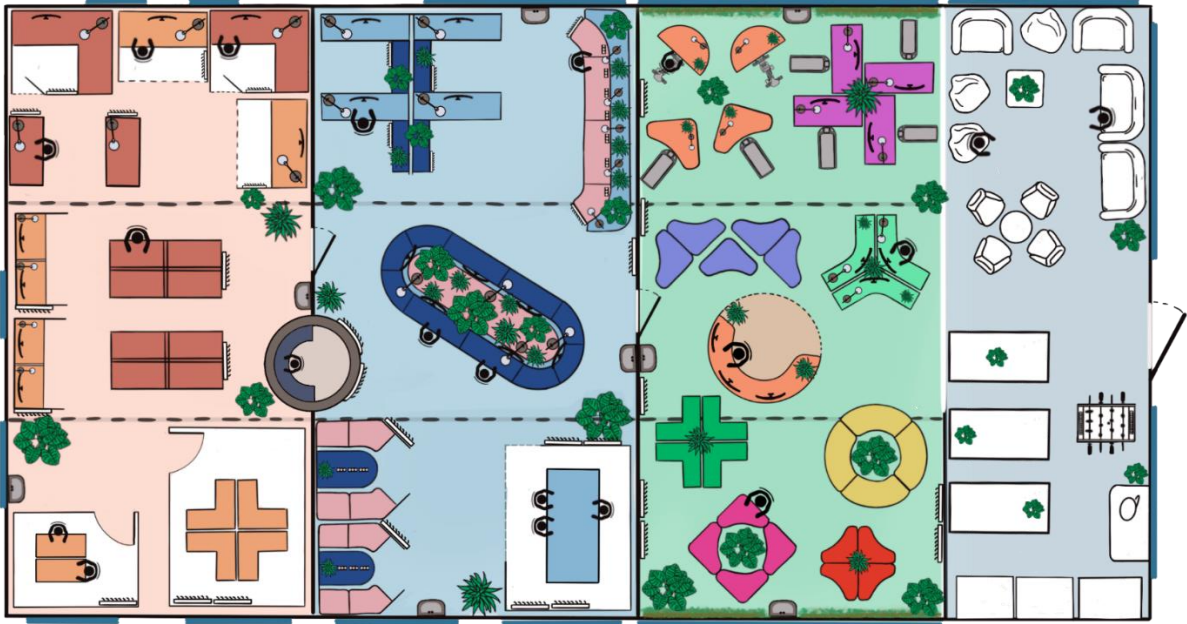


Figure 1, final neurodiversity study environment design

