

# Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



## Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners ([Examencommissie-BK@tudelft.nl](mailto:Examencommissie-BK@tudelft.nl)), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

The graduation plan consists of at least the following data/segments:

Personal information	
Name	Franka du Pau
Student number	4576195

Studio		
Name / Theme	Designing for care – towards an inclusive living environment	
Main mentor	Birgit Jurgenhake	Architecture
Second mentor	Lex van Deudekom	Building Technology
Third mentor	Leo Oorschot	Research
Argumentation of choice of the studio	During my exchange I did an interior architecture design project. The user was the main focus for the design and this made me realize I wanted an user orientated graduation studio. Buildings are made for people, and in this studio, you create valuable architecture by putting the user first and thereby contributing to society.	

Graduation project	
Title of the graduation project	Inclusive primary schools
Goal	
Location:	Titus Brandsmaschool Van Rijslaan 6, 2625 KX Delft
The posed problem, research questions and design assignment in which these result.	
<p>1   Definitions <i>Inclusive primary schools in the Netherlands</i> are 'regular' primary schools where all children can go to. This also includes 'different' children with special needs because of physical or intellectual disabilities, developmental delays, behavioural and emotional problems and/or specific learning difficulties (Bosdriesz &amp; van Veen 2023).</p> <p>The <i>physical educational environment</i> is the classroom and its furnishings, but it also involves the school building and all its contents, including physical structures, materials, infrastructure, various in- and outdoor spaces, furniture and the site on which a school is located and the site conditions which all children come into contact with (Acknah &amp; Danso, 2018).</p> <p>2   Problem statement <i>The Netherlands and inclusive education</i>; we have to come a long way and are late compared to many other countries. We have developed one of the most differentiated school systems</p>	

over the years and this does not make it any easier. A lot of work has been done in recent years to make Dutch education more inclusive and this is showing positive results. Also the Dutch government wants to move towards inclusive education and there are many ways to stimulate and accelerate this. School buildings have an important supporting function to facilitate inclusive education, so that children, teachers and other users do not continuously face obstacles. Little is currently known about housing inclusive education in the Netherlands. Proper buildings and clear design guidelines are needed in order to enable the development in the Netherlands in the field of inclusive education.

### 3 | Research question

What physical educational environment features support inclusive primary schools in the Netherlands?

### 4 | Sub questions

1. What are the needs of children for the physical inclusive educational environment?
2. What are the needs of children for the physical inclusive educational environment?
3. What are the consequences of these needs for the building?

### 5 | Design assignment

The research aim is developing design guidelines for inclusive primary schools in the Netherlands. These design guidelines will be used while renovating the Titus Brandsmaschool in Delft Buitenhof.

## Process

### Method description

Fieldwork is the biggest source of the research. For the fieldwork, 2 schools in the Netherlands that are leaders in inclusive education are visited. To answer the first sub-question, 7 pairs of children (age 9 to 12) are interviewed per school. First, the children are asked what they think makes the school inclusive. After that it is important to know how they perceive and experience their environment. Photovoice is an appropriate method because it asks children to capture images that are important to them, and then describe and explain their choices (Jorgenson & Allan, 2022). Each child has different needs, so participants were asked to capture their personal favourite places in school, 3 pictures per pair. In addition, a school is the place to meet other children and learn from and with each other, so participants were also asked to take photos of places where they enjoy being with other children, 3 photos per duo. And finally, if there were one or more places in school that they did not like, they were allowed to take a picture of that as well. The pictures taken are discussed with the pair to find out why they took the picture and what they do in the captured place.

To answer the second sub-question, 15 staff members per school with different positions in the schools are interviewed about their experiences with inclusive education in their current and former school buildings.

Fieldwork data from the children and staff are collated and analysed, and complemented with literature.

The needs have consequences for the building. From the fieldwork data, spatial qualities are abstracted that support the physically inclusive educational environment. They are substantiated with literature.

After this the main question can be answered what physical educational environment features support inclusive primary schools in the Netherlands. At last, the results are discussed and the research reflected.

## Literature and general practical references

Ackah-Jnr, F. R., & Danso, J. B. (2018). Examining the physical environment of Ghanaian inclusive schools: How accessible, suitable and appropriate is such environment for inclusive education? *International Journal of Inclusive Education*, 23(2), 188–208.

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Bosdriesz, M. & van Veen, D. (2023). *Samenwerker voor inclusiever onderwijs*. Retrieved from <https://www.naarinclusieveronderwijs.nl/>

Dudek, M. (2007). *Schools and kindergartens: A Design Manual*. Springer Science & Business Media.

Erklic M. & Durak, S. (2013). Tolerable and Inclusive Learning Spaces: An evaluation of policies and specifications for physical environments that promote inclusion in Turkish primary schools. *International Journal of Inclusive Education*, 17(5), 462-479.

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FNO (2023). *Het Manifest: Voor ons, met ons*. Retrieved from <https://www.fnozorgvoorkansen.nl/jongeren-inc/manifest/>

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Groeneweg, B. (2012). Van segregatie naar integratie naar... inclusie? In *Samen!: Passende huisvesting voor passend onderwijs*. THOTH Bussum.

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Jorgenson, C. R., & Allan, J. (2022). Our School: Our Space – inclusion and young people's experiences of space withing an English secondary free school. *Internaional Journal of Inclusive Education*, 1-21. <https://doi.org/10.1080/13603116.2022.2073059>

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Onderwijsraad (2020). *Steeds inclusiever*. Consulted on 3 november 2023 from <https://www.onderwijsraad.nl/publicaties/adviezen/2020/06/23/steeds-inclusiever>

Schraepen, B. (2023). Architecturale impact op inclusief onderwijs. *Scholen in een inclusieve samenleving*. [https://www.b2build-mediaplatform.be/nl/videos/scholen-een-inclusieve-samenleving-opname-inspiratie-event/download?affiliate=2282&check\\_logged\\_in=1&token=aD5pBn1eoQNTGaZuZrusycFQWm-zt4MaJspyznvht00#vimeo-chapters-3122](https://www.b2build-mediaplatform.be/nl/videos/scholen-een-inclusieve-samenleving-opname-inspiratie-event/download?affiliate=2282&check_logged_in=1&token=aD5pBn1eoQNTGaZuZrusycFQWm-zt4MaJspyznvht00#vimeo-chapters-3122)

Wiersma, D. (2023). *Kamerbrief over contouren werkagenda Route naar inclusief onderwijs 2035*. Retrieved from <https://www.rijksoverheid.nl/documenten/kamerstukken/2023/03/17/contouren-werkagenda-route-naar-inclusief-onderwijs-2035>

## Reflection

What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?

The research focuses on identifying the needs of inclusive education in the physical education environment. From this, design guidelines can be developed to design these environments for inclusive education. The studio, design for health and care, is there for users who are currently not always included as the standard in architecture and the built environment. This is in line with the housing of inclusive education. The architectural is strongly intertwined with the pedagogical in school designs. Primary schools are a foundation for a strong society and should therefore be well designed at all levels.

What is the relevance of your graduation work in the larger social, professional and scientific framework?

The Werkagenda by OCW (2023) states that housing requirements for inclusive education should be set for school buildings so that municipalities can include this in their policies and IHP. For this, more research should be done on designing inclusive school buildings. Little is

currently known on how to design an inclusive school building in the Netherlands. This is confirmed in an interview HEVO on 20 October 2023, one of the leaders in housing advice for inclusive education. Various parties are involved in education housing; government, municipalities, national councils, collaborative associations, foundations, boards, schools, teams, developers and architects, but working on inclusive education is a process that needs to be given meaning and shape from the bottom up, within its own context. Therefore, there is a need to look into practice to learn about housing for inclusive education.

The 2 inclusive primary schools where the fieldwork was done are new built. Currently in the Netherlands, there are many post-war school buildings. Therefore, for the design assignment is chosen to renovate an existing post-war primary school to make visible that and show how inclusive education is also possible in existing buildings.