

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), 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	Siti Lizzy Maria Brandts	
Student number	4853180	

Studio		
Name / Theme	Resilient Rotterdam Graduation Studio / Veldacademie	
Main mentor	Dr. ir. Leo M. Oorschot	Architecture and the Built Environment
Second mentor	Wing C. Yung	Architecture and the Built Environment
Argumentation of choice of the studio	<p>I chose the Veldacademie studio because of its hands-on approach to research, with a strong focus on fieldwork. This is a method I have not explored extensively during my studies, but I believe it will be valuable in further developing my skills and practical experience.</p> <p>Additionally, the studio's societal focus aligns perfectly with my ambition to contribute positively to society. Addressing relevant social issues through a human-centered approach greatly motivates me and reflects my vision of architecture as a tool for social impact.</p> <p>The decision to join the Veldacademie studio is further strengthened by its focus on Rotterdam, the city I live in and which holds personal significance for me. This connection makes the graduation project not only relevant but also personal and engaging.</p> <p>Lastly, I highly value the freedom the studio offers to shape my graduation project. The opportunity to define the theme, location, and building type myself enables me to develop a project that fully aligns with my ambitions and interests.</p> <p>The Veldacademie studio provides the perfect combination of challenge, relevance, and personal growth, making it the ideal choice for my graduation project.</p>	

Graduation project

Title of the graduation project	Designing for literacy: Architecture as a tool for literacy in Rotterdam-Zuid
Goal	
Location:	Persoonsdam in Feijenoord, Rotterdam-Zuid, The Netherlands
The posed problem,	In Rotterdam-Zuid, low literacy affects 36% of adults in disadvantaged neighborhoods such as Feijenoord, limiting social participation and access to basic resources. Despite ongoing efforts, low literacy remains a persistent and complex challenge, deeply intertwined with issues like poverty, unemployment, and social isolation. Current approaches often fail to address the stigma and accessibility barriers faced by low-literate individuals. There is a need for innovative solutions that go beyond traditional education and leverage the built environment to create inclusive spaces that encourage literacy development, reduce stigma, and foster social cohesion. This research investigates how architectural design can contribute to enhancing literacy and inclusion, in for example Feijenoord.
research questions and	<p>"Can built facilities contribute to improving literacy skills among residents with limited basic skills?"</p> <p>For example, in Feijenoord.</p> <p>Sub-questions:</p> <ol style="list-style-type: none"> 1. Which amenities in Feijenoord and its surroundings are currently contributing to promoting literacy development? 2. How does the target group perceive and experience built facilities, considering the stigma surrounding this issue?

	3. What kind of amenities attract and support the target group in improving their literacy skills?
design assignment in which these result.	The design assignment involves creating a multifunctional community building that aims to enhance literacy among neighborhood residents. Additionally, the project addresses a current and concrete case concerning the redevelopment of public functions at Persoonsdam, initiated by the Municipality of Rotterdam.
Process	
Method description	
<p>The research employs a diverse set of methods to address the main and sub-questions. These methods were not followed in a fixed sequence but were carried out partially simultaneously, often providing input for multiple research questions.</p>	
Literature Review	
<p>A key component of the research is the literature review on illiteracy in general and the specific situation in the Netherlands, with a focus on Rotterdam-Zuid and the Feijenoord district. Academic papers and policy documents from national and local sources, such as publications from the Ministry of Education (2013), the Municipality of Rotterdam (2019, 2022), and the Rijnmond labor market region (2020), were consulted. In addition, international sources from UNESCO (2022) were included. Documents were collected using databases like WorldCat and Google Scholar.</p>	
Demographic Analysis	
<p>To map the characteristics of the target group in Feijenoord, the Neighborhood Profile (Wijkprofiel, Municipality of Rotterdam, 2024), Health Mapped by the GGD Rotterdam Rijnmond (n.d.), and the Onderzoek010 platform (Municipality of Rotterdam, n.d.-b) sources were consulted. Semi-structured interviews with employees from the social development department of the Municipality of Rotterdam and members of the Feijenoord district council provided additional insights into the neighborhood and its target group.</p>	

Observations

For the analysis of existing facilities aiming to improve literacy in Feijenoord, an overview was compiled based on the 'Word beter in Taal' map provided by the Municipality of Rotterdam (n.d.-c). Subsequently, these locations were visited, and unstructured observations were conducted. This method was chosen because of the vulnerable and hard-to-reach nature of the target group. Observations were focused on aspects such as accessibility, reachability, design, and usage of the facilities.

Interviews

Various interviews were conducted with both preselected participants and individuals encountered spontaneously. Semi-structured interviews were held with a language policy and welfare advisors of the municipality, the director of Stichting Proteas, the chairperson of the Feijenoord district council, and a community manager from the Feijenoord district's Vuurplaat neighborhood living room (Huiskamer van de wijk). Additionally, informal conversations were conducted with residents, a community manager of 't Klooster community center, the manager of SOL, and an administrative assistant for Spanish-speaking residents. These conversations provided valuable insights into the effectiveness of existing facilities and challenges related to illiteracy in Rotterdam-Zuid, particularly in Feijenoord.

Two in-depth interviews with individuals from the target group were conducted on the Eindhoven University of Technology (TU/e) campus. These participants were linked to the study via Eindhoven Engine and resided in Eindhoven. Although the study focuses on Feijenoord, finding suitable respondents in Rotterdam proved challenging due to the sensitive nature of the topic. The collected insights are considered broadly representative, as experiences with built facilities are universally applicable not specific to a region.

During the interviews, participants followed a predetermined route under guidance, visiting locations that represented various spatial scales (neighborhood, building, interior). This approach allowed them to focus entirely on sharing their experiences without worrying about navigation. All interviews were conducted in accordance with the ethical guidelines of the Human Research Ethics Committee

(HREC) of TU Delft. Participants were fully informed about the purpose of the study, and their anonymity is guaranteed.

Literature and general practical references

Adriaanse, T. (2024, November 20). Beleidsadviseur Taal Gemeente Rotterdam [Personal communication].

Building Facility Definition. (n.d.). Law Insider. Retrieved 1 November 2024, from <https://www.lawinsider.com/dictionary/building-facility>

Buisman, M., Allen, J., Fouarge, D., Houtkoop, W., & Velden, R. van der. (2013). PIAAC 2012: De belangrijkste resultaten. Expertisecentrum Beroepsonderwijs. <https://ecbo.nl/onderzoekpublicatie/piaac-kernvaardigheden-voor-werk-en-leven/>

Cambridge University Press. (2025, January 8). Amenity. Cambridge Dictionary. <https://dictionary.cambridge.org/dictionary/learner-english/amenity>

CBS. (2025). Startkwalificatie (onderwijs) [Webpagina]. Centraal Bureau voor de Statistiek. <https://www.cbs.nl/nl-nl/onze-diensten/methoden/begrippen/startkwalificatie--onderwijs-->

De Geschiedenis van Feijenoord. (2025). De Magie van Feijenoord. <https://www.magievanfeijenoord.nl/geschiedenis/>

de Vos, E. (2023). Metamorfose van een wijk Welkom in Feijenoord. De Groene Amsterdammer, 42. <https://www.groene.nl/artikel/welkom-in-feijenoord>

Dulk, D. den, Bijlsma, I., & Geffen, N. van. (2023, June). Mate van geletterdheid in de gemeente Rotterdam. CBS.

Gemeente Rotterdam. (n.d.). Laaggeletterdheid en geld. Retrieved 31 October 2024, from <https://www.beterintaal.nu/werkt/geld>

Gemeente Rotterdam. (2016a). Taal, gezondheid en zorg.

Gemeente Rotterdam. (2016b). Taal, gezondheid en zorg. <https://www.zorgimpuls.nl/upload/files/Toolkit%20laaggeletterdheid/Gemeente%20Rotterdam%20-%20Factsheet%20Taal,%20gezondheid%20en%20zorg.pdf>

Gemeente Rotterdam. (2019). De Taalspiraal: Beleidskader Taal in Rotterdam 2019 – 2022. https://vng.nl/sites/default/files/Sociaal_Domein/2019/Beleidskader-taal-Rdam.pdf

Gemeente Rotterdam. (2024). Wijkprofiel Rotterdam. <https://wijkprofiel.rotterdam.nl/nl/2024/rotterdam>

Gemeenten arbeidsmarktregio Rijnmond. (2020). Samen verder in de regio Rijnmond: Taal, rekenen en digitale vaardigheden als basis (Regionaal Programma

Basisvaardigheden). https://basisvaardigheden.nl/sites/default/files/2021-11/AMRRijnland_Regioplan_laaggeletterdheid.pdf

Halewijn, E., , Esra van den Aker, Sapulete, S., Varwijk, J., Berg, T. van den, & Schreiber, W. (2021). Begrippenlijst Laaggeletterdheid (No. 1.0). Berenschot en ITTA UvA.

Halewijn, E., Aker, E. van den, Sapulete, S., Varwijk, J., Berg, T. van den, & Schreiber, W. (2021). Begrippenlijst Laaggeletterdheid. 1. <https://basisvaardigheden.nl/sites/default/files/2021-09/Begrippenlijst%20Laaggeletterdheid.pdf>

Hanemann, U. (2023). Promoting Literacy for More Peaceful, Just and Sustainable Societies. UN Chronicle. <https://www.un.org/en/un-chronicle/promoting-literacy-more-peaceful-just-and-sustainable-societies>

Hootsmans, I. (2024). Navigating Through Low Literacy [Final Master project, Eindhoven University of Technology]. <https://research.tue.nl/en/studentTheses/navigation-through-low-literacy>

Hootsmans, I. (2024, October 21). Workshop 'Aahh ik snap het niet' [Personal communication].

Kleffens, C. van K., & Smit, R. (2016). Laaggeletterdheid steeds groter probleem. <https://www.medischcontact.nl/actueel/laatste-nieuws/artikel/laaggeletterdheid-steeds-groter-probleem>

Laaggeletterdheid? Een blinde vlek in het sociaal domein. (2020). <https://www.movisie.nl/artikel/laaggeletterdheid-blinde-vlek-sociaal-domein>

Marco Pastors, Astrid Kroos, Vildan Ekiz, David van Dis, Andrea Stierman, Giovanni Fritschij, Cynthia Blok, Erik Venema, Geerten Graef, Ines Haddoudi, Evronique Smits, Chantal van Amsterdam, & Edwin Cornelisse. (2023). Nationaal Programma Rotterdam Zuid: Uitvoeringsplan 2023-2027. <https://www.nprz.nl/>

Ministerie van Onderwijs, C. en W. (2013, May 14). Home—Tel mee met Taal [Webpagina]. Ministerie van Onderwijs, Cultuur en Wetenschap. <https://www.telmeemettaal.nl/>

Morrisroe, J. (2014). Literacy Changes Lives 2014: A New Perspective on Health, Employment and Crime. National Literacy Trust. <https://eric.ed.gov/?id=ED560667>

National Literacy Trust. (2022). Public Libraries and Literacy Recovery. <https://literacytrust.org.uk/research-services/research-reports/public-libraries-and-literacy-recovery/>

NOS. (2024, September 9). NOS Journaal in Makkelijke Taal van start. <https://nos.nl/artikel/2536458-nos-journaal-in-makkelijke-taal-van-start>

Pointer. (2023, January 15). Waarom laaggeletterdheid een groot probleem is, en voorlopig blijft. KRO-NCRV. <https://pointer.kro-ncrv.nl/waarom-laaggeletterdheid-groot-probleem>

ROA. (2016). Regionale spreiding van geletterdheid in Nederland. Researchcentrum voor Onderwijs en Arbeidsmarkt (ROA).

Ross Adkins, N., & Ozanne, J. L. (2005). Critical Consumer Education: Empowering the Low-Literate Consumer. *Journal of Macromarketing*, 25(2), 153–162. <https://doi.org/10.1177/0276146705280626>

Stichting Lezen & Schrijven. (2018a). Feiten & Cijfers Laaggeletterdheid: De invloed van lage basisvaardigheden op deelname aan de maatschappij. https://www.lezenenschrijven.nl/sites/default/files/2020-09/2018_SLS_Literatuurstudie_FeitenCijfers_interactief_DEF.pdf

Stichting Lezen & Schrijven. (2018b). Fieten & Cijfers Laaggeletterdheid: De invloed van lage basisvaardigheden op deelname aan de maatschappij. https://www.lezenenschrijven.nl/sites/default/files/2020-09/2018_SLS_Literatuurstudie_FeitenCijfers_interactief_DEF.pdf

Stichting Lezen en Schrijven. (2024, December 16). Kennisblad Laaggeletterdheid in Nederland. <https://www.lezenenschrijven.nl/wat-doen-wij/oplossing-voor-je-vraagstuk/kennisblad-laaggeletterdheid-nederland>

UNESCO Institute for Lifelong Learning. (2013). 2nd global report on adult learning and education: Rethinking literacy (No. 2). <https://unesdoc.unesco.org/ark:/48223/pf0000222407?posInSet=1&queryId=9b700ba3-ff46-4e42-a4c5-7198ad17ccdc>

UNESCO Institute for Lifelong Learning. (2016). 3rd global report on adult learning and education: The impact of adult learning and education on health and well-being, employment and the labour market, and social, civic and community life (No. 3). UIL. <https://unesdoc.unesco.org/ark:/48223/pf0000245913>

UNESCO Institute for Lifelong Learning. (2022). 5th global report on adult learning and education: Citizenship education: Empowering adults for change (No. 5). <https://unesdoc.unesco.org/ark:/48223/pf0000381666>

UNESCO Institute for Statistics. (2020, June 22). Literacy. <https://uis.unesco.org/node/3079547>

van Dun, L. (2023, Oktober). Feitenkaart Opleidingsniveau Rotterdam op gebieds- en buurniveau 2022* (voorlopige cijfers).

van Klei-van Kleffens, C., & Smit, R. (2016). Laaggeletterdheid steeds groter probleem. <https://www.medischcontact.nl/actueel/laatste-nieuws/artikel/laaggeletterdheid-steeds-groter-probleem>

Wong, E. (2023, October 16). What Are Wicked Problems and How Might We Solve Them? The Interaction Design Foundation. <https://www.interaction-design.org/literature/article/wicked-problems-5-steps-to-help-you-tackle-wicked-problems-by-combining-systems-thinking-with-agile-methodology>

Reflection

1. 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)?

My graduation project, which focuses on low literacy, is closely aligned with the theme *Resilient Rotterdam* of the graduation studio Veldacademie. Promoting literacy has a direct impact on the self-sufficiency of individuals, contributing to social cohesion and the resilience of the neighborhood. By addressing low literacy, we can empower residents, which is essential for strengthening the community and enhancing resilience at both the local and even national level.

This project falls within the master track *Architecture* because it not only explores the social impact of literacy but also uses architecture as a tool to address this societal issue. The design provides space for education, interaction, and community development, where the built environment acts as a catalyst for promoting literacy and self-sufficiency. In this way, the project contributes to solving a social issue through spatial and architectural interventions, which is characteristic of the master track *Architecture*.

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

The relevance of my graduation project lies in the unique role architecture can play in reducing low literacy, a social issue that is often overlooked. There has been no research conducted on the relationship between the experience of the built environment by low-literate individuals and its impact on their situation and literacy development, but (preliminary) findings suggest that this experience significantly contributes to the problem. The topic is not only urgent but also constitutes a wicked problem that affects multiple levels of an individual's quality of life. This graduation project is therefore both socially relevant and scientifically important, as it provides new insights into how spatial interventions can contribute to addressing this complex issue.