Profiling the palette of teacher preferences

Utilizing Q-methodology to inform targeted policies in primary education in the Netherlands.



E.H. Insinger

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By

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Student number: 4364368

in partial fulfilment of the requirements for the degree of

Master of Science
in **Engineering and Policy Analysis**

at the Delft University of Technology,
to be defended publicly on Tuesday August 29, 2023 at 11:30 AM.

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Preface

"Education is the most powerful weapon which you can use to change the world." – Nelson Mandela

'Thinking about education' has been a recurring theme throughout my time as a student. What started as student ambassador for the faculty back in 2016, continued with the representation of master students as part of the faculties Education Management Team during the pandemic in the academic year 2020-2021. This led to my participation in the Dutch National ThinkTank, where I had the opportunity to spend four months developing solutions for foundational education in the Netherlands during the fall of 2021. I feel very strong about our education system, and I am extremely privileged to live in a country where such high-quality education is publicly available.

However, as you will read in my thesis, there is currently a shortage of teachers, which poses a challenge to providing all schoolchildren with qualified and ell-equipped educators. This issue threatens the public nature of our high-quality education system. The shortages in schools disproportionately affect students from lower socio-economic backgrounds, leading to unequal opportunities to attend VWO schools or access universities. Although it may be impossible to completely eliminate this advantage, I believe that we must strive for equal opportunities.
Throughout my own educational journey, I have been incredibly fortunate to have received the support of my mother. She has been there every step of the way, sacrificing part of her own career to be with me, and bravely allowing me to study abroad in Norway from the age of 16. I am immensely grateful for her and the support and opportunities she has provided. There are many others that have helped me at different steps along the way and without all those friends and family I would not be finishing this thesis now, you know who you are! I also want to give a special mention to Odilia, who has been of tremendous help throughout this past year whenever I struggled with motivation or doubted my ability to complete this thesis.
I would also like to express my gratitude to The Next School and Quinten Smit, for their guidance and insights into the company, which instantly made me feel at home. Additionally, I would like to thank Haiko van der Voort and Neelke Doorn for their guidance, suggestions, and feedback on this thesis, which helped me through this process. I am even more grateful for all of our 'other' conversations. I have learned at least equal as much from both of you during my year in the Curius board and our conversations since. Your leadership and ability to manage all your duties have taught and inspired me for the paths I will follow in the future. This is also true for the rest of the Education Management Team, with a special mention to Bert Enserink, the former educational director of EPA. He shaped the EPA into what I wanted to study. We shared many laughs during conversations, and he even had me give a presentation about the EPA program in front of 100 potential EPA students without showing me the slides beforehand - a presenting challenge that we spoke about long afterwards. He closely supervised my internship with the ThinkTank and attended our final presentation. I will always remember his dedication to students, kindness, and cheerful spirit.

Finally, I extend my gratitude to the faculty of TPM. The TPM faculty has become a special place for me over the years. Whenever I enter the building, I find myself stuck in conversations in the hallway, recently more with professors and facility staff rather than fellow students. An indication that my time as student at TPM is coming to an end. Who knows, maybe one day I will return.

Goodbye for now!

Emma Insinger
Amsterdam, June 2023

Summary

Introduction

The teacher shortage in primary education in the Netherlands has risen to nearly 10%, meaning every primary school student is confronted with an average of 10% in-class time without a (qualified) teacher. The problem is worse in the five largest cities of the Netherlands, where the shortage rises to nearly 16% on average, and reaches up to 25% in underprivileged neighbourhoods. The situation is affecting the quality and equality of education and threatens the achievement of inclusive and equitable education, a key objective of the United Nations' Sustainable Development Goal 4. This research aims to shed light on this issue, adopting a bottom-up approach using Q-methodology to explore policy refinements from the perspective of different types of teachers.

Knowledge Gap & Research Objectives

When addressing the primary school teacher shortage, teachers are often treated as a homogenous group in both research and policies, neglecting their potential variations. Various research papers have also called for a better inclusion of the teaching population in formulating new policies. However, the education field consists of many stakeholders making it a complex multi-actor setting. The research approach first aims to gain a comprehensive understanding of the multi-actor setting in the specific context of the teacher shortage. Next, it contributes to understanding of teachers as professionals, specifically regarding their preferences and needs within their job as teacher. By doing so, this research will aim to bridge the gap between teachers and policy makers, focusing on identifying different types of teachers based on their preferences within job characteristics. By profiling teachers based on job preferences, the research aims to increase the voice of teachers in the policy debate and to inform targeted strategies to reduce the teacher shortage based on the found profiles and corresponding job preferences by teachers. Based on the identified knowledge gap, the following research question was formulated: *"How can teacher profiles based on job preferences inform targeted policies aimed at reducing the Dutch primary school teacher shortage?"*

Part 1: Stakeholder Complexity & Characteristics of the teaching profession

The complexity of stakeholder interactions in the Dutch education sector contribute to the problem of the teacher shortage. Centralized and decentralized policies coexist, creating an intricate organisational landscape where policy effects are unpredictable and for the large parts unmonitored (Asscher, 2022; Hooge, 2017; Waslander et al., 2022). Embedded in the landscape of the primary education sector are various actors, each with distinct roles and responsibilities. These include the Ministry of Education, Culture & Science, the education council, and regional alliances, among others. Whilst several initiatives have been launched to address the teacher shortage over the past decade, the problem persists, suggesting a need for more strategic, refined approaches (Asscher, 2022; van Vroonhoven, 2020). The different strategies adopted by cities within the G5 underline this need. The allocation of subsidies, inconsistent across different regions, also poses challenges. Amidst the controlling administrative landscape, teachers often find themselves constricted by an intricate web of regulations, hindering their professional autonomy. The complex interplay of institutions in the multi-actor setting underscores the importance of understanding and strongly representing the needs of different teacher profiles to devise targeted, effective policies to combat the teacher shortage. In order to execute such research, the characteristics of the teaching profession were analysed in the second half of part 1.

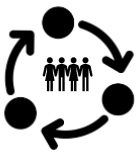
The teaching profession's multifaceted nature, including sociological, pedagogical, and economic dimensions aspects were analysed using a wide array of literature. Chapter 4 discusses the multifaceted nature of teaching as a profession and an occupation, with a focus on the aspects relevant when analysing job preferences within the profession. Predominant perspectives were

drawn from the seminal work of Ingersoll and Perda (2008) and Hendrikx (2019), alongside various other sources, to explore relevant characteristics of the teaching job from a comprehensive standpoint.
Two major insights are highlighted from the analysis. Firstly, current literature exhibits a boxed nature, focusing mainly on sociological, pedagogical, or economical aspects individually, rather than providing an integral understanding of teachers' preferences across all facets of the profession. Many studies focus on a single characteristic, such as years of experience or work ethic, overlooking the variety of intrinsic motivations that different teachers may hold.
Secondly, studies that consider multiple aspects of the teaching profession often overlook the presence of varying teacher types with distinct preferences. Despite extensive research offering a comprehensive outlook on teaching (Allen, 2005; Sims, 2018), there's a lack of understanding about specific teacher types and their distinct preferences. This gap persists even in studies attempting to rank teachers' preferences, such as the Dutch Labour Platform for primary education's study "What drives the mobile teacher" (Arbeidsmarktplatform PO, 2020).
A shift in perspective is proposed to view teaching not just as a sum of its parts, but as an interconnected field where various aspects interact and vary among individuals. The goal is to transition from understanding teachers through isolated preferences or single aspects to a holistic, 3D understanding that recognizes various combinations of preferences and aspects.

Part 2: Empirical Analysis of Teacher Perspectives

The Q-methodology is an explorative approach that allows qualitative information to be analysed quantitatively (Brown, 1980), it is proposed as a means to uncover the preferences among different teachers. This method is particularly useful in a complex actor landscape, making it suitable for the playing field of primary education in the Netherlands as analysed in Part 1. The Q-methodology in this research aims to develop a deeper understanding of the diverse job preferences within the teaching profession. Teachers were asked to rank 21 statements regarding job aspects from not important to very important. Three profiles of teachers were deduced after execution of the Q-analysis.

Profile A - The Service-focussed Teacher



The Service-Focused Teacher profile is characterized by a service-oriented inclination, with significant emphasis placed on assisting underprivileged children, and a high value on leadership and community within their workplace. These teachers appreciate trustworthy school leaders, articulated educational and pedagogical vision, attention to work pressure, and community-oriented features. Material aspects of their position, such as facilities or the opportunity to transition into leadership roles, hold less value for this group. They are motivated by roles that allow them to make a significant social impact, particularly in challenging settings, and are drawn to institutions that showcase ethical leadership and supportive team dynamics.

Profile B - The Classroom focussed Teacher



The Classroom Focused Teacher profile values maintaining the integrity of their classroom environment and pedagogical autonomy. This group shows significant importance for trustworthy school leaders and the freedom to determine their teaching methodologies. They also exhibit a keen awareness of work-related stressors and an interest in mitigating them. This profile appreciates the value of a good salary and small classes but shows little interest in advancing to other positions within the educational institution. To attract and retain these teachers, job offers should guarantee autonomy, trustworthy leadership, and supportive team environments.



Profile C - The Career focussed Teacher

The Career Focused Teacher profile prioritizes personal growth and leadership within the educational environment, showing significant interest in policy engagement and career progression. These teachers value school leaders who effectively manage teams, clear educational and pedagogical vision, autonomy in their teaching methods, and the presence of growth within their current role. They show less concern for geographical proximity to the school or administrative tasks. Schools that provide clear pathways for career advancement, policy engagement, and effective leadership can attract and retain these teachers.

The three profiles display distinct preferences, with Service-Focused Teachers and Classroom Focused Teachers sharing a strong emphasis on trust in school leadership. Yet, they diverge in other priorities like assisting underprivileged children or teaching method autonomy. Differences between Service-Focused Teachers and Career-Focused Teachers are pronounced, particularly around career progression and policy involvement. Classroom Focused Teachers and Career Focused Teachers share some common ground but show differing interests in career progression. All profiles show minimal importance to geographical proximity to the school but appreciate trustworthy school leaders and effective team management to varying degrees, see also the two figures below.

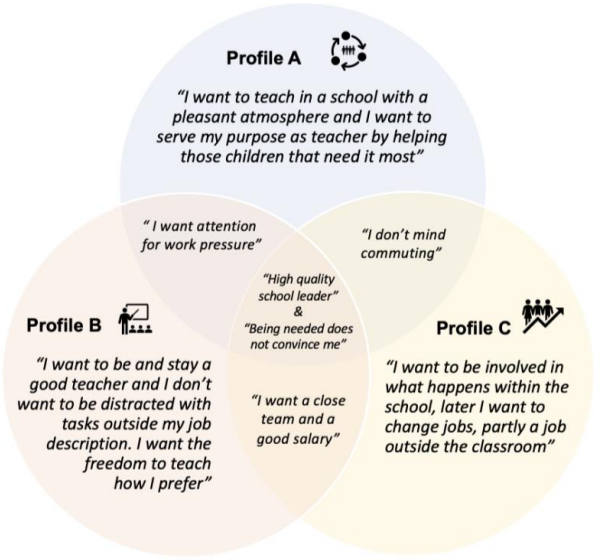




Figure 1. Similarities and differences across the three teacher profiles (left) and Figure 2. Possible windows of opportunities for each teacher profile (right).

Part 3: Informing Policies Targeting Primary School Teachers

Part 3 of this research sought to leverage insights from the obtained and detailed teacher profiles to inform policies targeting primary school teachers in the Netherlands. Recognizing the distinct values, priorities, and needs of Service-Focused, Classroom-Focused, and Career-Focused Teachers, a policy framework was proposed guided by the principles of equity, teacher empowerment, and job satisfaction. This framework, supported by strategic mechanisms such as funding, legislation, and institutional support, aims to create an infrastructure to inform policies tailored to each teacher profile.

By aligning the nuanced characteristics and needs of each profile with specific policy interventions, tailored policies could be derived. For Service-Focused Teachers, tailored policies can focus on leaving room for differentiation in local subsidies, stimulating the service oriented and collaboration seeking nature of this teacher. Classroom-Focused Teachers would benefit from tailored policies enhancing pedagogical autonomy and empowering school leaders to decide on time spend by

teachers within their school. For Career-Focused Teachers, tailored policies should offer clear career advancement paths, set out nationally so that teachers are not relying on the possibilities available at their individual school. This strategic, differentiated policy approach holds potential for a more informed and effective response to the primary school teacher shortage in the Netherlands.

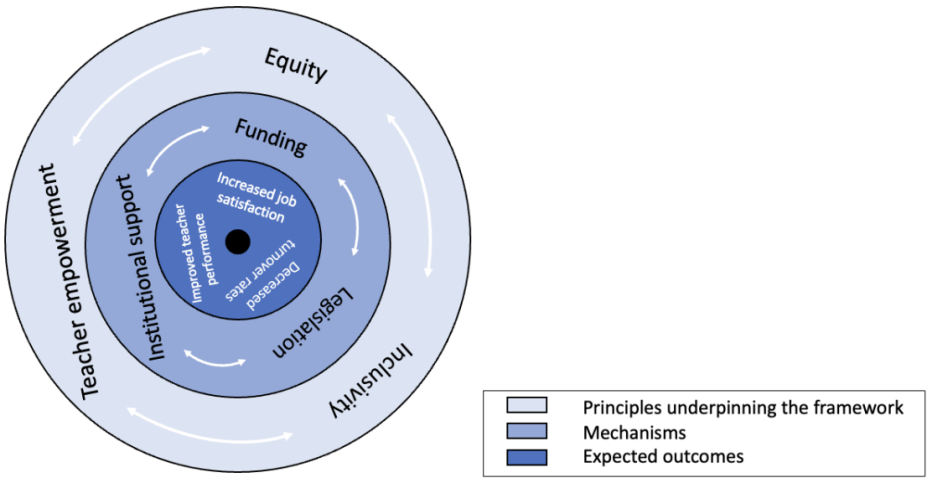


Figure 3. Policy framework targeting teacher attract & retain policy.

Conclusion

The primary research question of this study sought to explore if profiling teachers based on job preferences could inform targeted strategies to mitigate the primary school teacher shortage in the Netherlands. The study's results underscore the potential for tailored policies, given the difference in professional and personal needs of types of teachers. The research identified three distinct teacher profiles: Service-Focused, Classroom-Focused, and Career-Focused, and provided tailored policies to meet the needs and motivations of these specific groups.

However, effectively addressing the teacher shortage in the Dutch primary education system, given its multi-actor setting and the diversity of teacher profiles, presents numerous challenges. This includes balancing central and local responsibilities and autonomy, deliberating between general and tailored policies.

The study also highlights limitations of the applied methodology, such as potential biases in the questionnaire statements and the representativeness of the respondents. Moreover, the suggested policy interventions based on teacher profiles are informative, and implementing these still requires careful verification and validation of the results of this research.

Recommendations for future research include exploring the needs of other key stakeholders, such as school leaders and school boards using a similar Q-methodology study. Further conducting a Q-study of job preferences among primary school teachers within disadvantaged neighbourhoods could provide additional insides targeting the schools where the need for more teachers is on average the highest. Finally, going into more depth based on the findings of this research, refining the target groups within primary school teachers, and testing potential policies using stated choice experiments would provide valuable insights for potential policies targeting these specific groups.

Table of contents

Preface **3**

Summary **4**

1. Introduction 13

1.1 Teacher shortage in The Netherlands 13

1.2 Problem statement 13

1.2.1 Stakeholder complexity within the Dutch Education sector 14

1.2.2 Complexity of targeting 'a profession' 14

1.3 Knowledge gap 14

1.4 Research question 15

1.5 Research objective 15

1.6 Scope 15

1.7 Linkage to the EPA program 16

1.8 Structure of the report 16

2. Research approach 17

2.1 Part 1: The Multi-Actor Setting & Characteristics of the teaching profession 17

2.2 Part 2: Empirical analysis of teacher perspectives 17

2.3 Part 3: Evaluate Policies Targeting Primary School Teachers 18

Part 1: The Multi-Actor Setting & Characteristics of the teaching profession **20**

3. The multi-actor setting and its policies. 20

3.1 Context of the teacher shortage in the Netherlands 20

3.2 The roles and responsibilities of stakeholders 22

3.3 Policies targeting the teacher shortage 24

3.3.1 Historical overview of policies and their impact 24

3.3.2 Present scenario: Current actions and initiatives 26

3.3.3 Regional Initiatives 27

3.3.4 Recommended Policies by External Parties 29

3.4 Concluding remarks on the policies within the multi-actor setting. 30

4. Characteristics of the teaching profession 32

4.1 Teaching as profession 32

4.1.1. Professional development & Specialisation 35

4.1.2. Authority over decision-making 36

4.1.3. Compensation levels 37

4.1.4. Service to others 38

4.2 Teaching as occupation 39

4.3 Concluding remarks on the characteristics of teaching 41

Part 2: Empirical analysis of teacher perspectives **43**

5. Exploring perspectives of teachers through Q-methodology 43
5.1 The Q-methodology 43
5.1.1 Choice of Q-methodology 43
5.1.2 Use of Q-methodology 43
5.1.3 Steps of the Q-methodology 44
5.1.4. Implications and limitations of Q-methodology in this research 48
5.2 Results - Interpretation of dominant perspectives 48
5.2.1. Profile A - The Service-focussed Teacher 49
5.2.2. Profile B - The Classroom focussed Teacher 50
5.2.3. Profile C - The Career focussed Teacher 50
5.3 Concluding remarks 52
Part 3: Informing Policies Targeting Primary School Teachers 54
6. Exploring policy interventions 54
6.1 Overview 54
6.2. The Policy Framework 54
6.3 Mapping the Profiles to areas of policy interventions 56
6.3.1. Service-Focused Teachers 56
6.3.2 Classroom-Focused Teachers 56
6.3.3. Career-Focused Teachers 56
6.4 Informing targeted policies 57
6.4.1. Policies targeting scattered responsibilities within the sector 57
6.4.2 Policies targeting the application of regional subsidies 57
6.4.3 Policies targeting the quality control of education and autonomy of teachers 58
6.4.4 Concluding remarks regarding targeted policies 58
7. Conclusion 60
7.1 Part 1: The Multi-Actor Setting & Characteristics of the teaching profession 60
7.2 Part 2: Empirical Analysis of Teacher Perspectives 62
7.3 Part 3: Inform Policies Targeting Primary School Teachers 63
7.4 Conclusion: Answering the Main Research Question 63
7.5 Discussion and reflection 64
7.6 Recommendations for further research 65
Bibliography 67
Appendix 72
Appendix A – Q-methodology questionnaire 72
Appendix B – Workshop held at researchED 78
Appendix C - Promotion of the Q-methodology survey 79
Appendix D – Interview guidelines semi-structured interviews 81
Appendix E – Current measures to tackle teacher shortage and their rated effects 83

Appendix F – Recommendations by external parties regarding the teacher shortage 89
Appendix G. Output data of Q-methodology survey 93
Appendix H. Documentation of the Q-analysis 97

List of terms and abbreviations

Term	Definition
School weight	Indicator that provides information about the student population. Based on: The education level of the parents, the average education level of all mothers at school, the country of origin of the parents, the length of stay of the mother in the Netherlands, and whether the parents are undergoing debt restructuring. The number ranges from 20 to 40. The higher the number, the more complex the student population *(schoolgewicht).*
G5	The five largest municipalities in The Netherlands working together on the teacher shortage as the 'G5' alliance, including: Amsterdam, Rotterdam, Den Haag, Utrecht and Almere.
OCW	Ministry of Education, Culture and Science *(Ministerie van onderwijs, cultuur en wetenschap)*
fte	Full-time equivalent (full-time job), a job with the size of a full working week has a size of 1 fte. Range is between 0 and 1.
PO	Primary education, for children aged 4-12 *(primair onderwijs)*
VO	Secondary education, for children aged 12-18 *(voortgezet onderwijs)*
SO	Special education, for children with special needs *(speciaal onderwijs)*
Foundational education	Umbrella term when speaking about primary and secondary education combined, educating ages 4-18 *(funderend onderwijs)*
Aob	Largest union within the education field *(Algemene Onderwijsbond)*
OECD	A partnership of 38 countries to discuss, study and coordinate social and economic policies *(OESO)*
Labour region	Functional demarcation of a geographical region for which certain measures against the teacher shortage are taken (*Arbeidsmarktregio)*
Quiet reserve	Teachers who are qualified to work in education but don't or no longer do so. (stille reserve).
Second career teachers	Teachers who switched to become a teacher later in their careers, following a special trajectory to become a licensed teacher *(zij-instroom)*
Part time factor	The number of fte someone is working, a higher part time factor means a larger number of hours per week for teachers (deeltijdfactor)

1. Introduction

In this chapter the background, problem definition, the complexity of the stakeholders, the knowledge gap and the research question and objectives will be discussed. The chapter concludes with an overview of the structure of the report.

1.1 Teacher shortage in The Netherlands

In 2021, the teacher shortage in the Netherlands reached nearly 10%, indicating that one out of ten primary school children did not have a qualified teacher in front of the classroom (Adriaens, Elshout, et al., 2022). The shortage is particularly pronounced in the largest five cities of the Netherlands, where it reaches almost 16%, and in certain areas within these cities, primarily less privileged neighbourhoods, the shortages can escalate to as high as 25% (Adriaens, Elshout, et al., 2022). The growing shortage of qualified teachers in education, particularly in primary education, poses a significant concern for the government and educational institutions due to its impact on the quality of education (Inspectie van het onderwijs, 2022). Over the past twenty years, there has been a decline in reading and writing skills in Dutch primary schools, exacerbating educational disparities, especially for children from lower socio-economic backgrounds, in the aftermath of the COVID-19 (van Nieuwstadt, 2019). This situation jeopardizes the achievement of Sustainable Development Goal 4, which aims to provide inclusive, equitable, and quality education for all by 2030 (UN, 2015). Despite public education in the Netherlands striving for equality of opportunity and high-quality education, the growing teacher shortage and lack of transformative policies over the past two decades have posed significant challenges(Inspectie van het Onderwijs, 2022) Teaching is often regarded as a semi-profession, and the absence of self-governance creates a significant gap between central policies and the population of over 125,000 teachers (Ingersoll & Perda, 2008). Or as Rinnooy Kan (2018) said about the teacher shortage: “Give them money, space and time”.
The division of governance and policymaking among various stakeholders with varying degrees of centrality further contributes to the complexity of the education sector (Hooge, 2017). Moreover, the absence of an existing professional standard of work makes it challenging to structure career development at a national level, hindering efforts to address the teacher shortage (Evans, 2019; Van Veen, 2012). By recognizing the complexity of the teacher shortage crisis and the multi-faceted nature of the teaching profession, this research seeks to provide a nuanced understanding of the profession and its job characteristics.
This research aims to tackle these challenges by adopting a bottom-up approach and exploring the potential of refining policies from the perspective of teachers themselves. This approach will involve gathering qualitative information on teachers' preferences using a mixed-method approach, including an empirical analysis utilizing the Q-methodology.



Figure 4. United Nations development goal 4

1.2 Problem statement

This section will introduce the complexity of stakeholder interactions within the Dutch education sector, the challenges of targeting the teaching profession, and the existing knowledge gap in understanding teachers' preferences and needs.

1.2.1 Stakeholder complexity within the Dutch Education sector

The primary education sector in the Netherlands is confronted with the critical challenge in addressing the teacher shortage and developing effective policies to attract and retain primary school teachers. The complexity of stakeholder interactions within the Dutch education sector contributes to this challenge. The sector operates under a combination of centralized and decentralized policies, with individual schools enjoying a high degree of autonomy through school boards (Hooge, 2017). This combination of centralized policies and decentralized responsibilities and autonomy creates a complex organizational landscape wherein the relationship between central steering and its decentralized effects remains uncertain and unpredictable (Waslander et al., 2022). The task of tackling the teacher shortage requires engaging with multiple stakeholders at various levels, ranging from local to national, thereby further complicating policy implementation. For example, the occurrence of the "waterbed theory" phenomenon, wherein policies implemented in specific regions prompt teachers to relocate to neighbouring areas without equivalent policies in place, highlights the intricate nature of stakeholder interactions (van der Meer & van der Aa, 2021). Literature on stakeholder complexity within education, as exemplified by studies of Waslander, van der Meer& van der Aa, and Hooge, highlights the imperative of comprehensively understanding the diverse stakeholders involved in the education sector to effectively implement policies addressing the teacher shortage.

1.2.2 Complexity of targeting 'a profession'

The complexity of targeting the teaching profession adds another layer of challenge to addressing the teacher shortage. The multifaceted nature of the teaching profession encompasses sociological, pedagogical, and economic dimensions (Lohman, 2020). Teaching is often considered a semi-profession, lacking self-governance and a clear professional working standard (Ingersoll & Perda, 2008). The absence of a national teacher register and an established and widely supported professional working standard presents difficulties in structuring career development at a national level (Cörvers, 2014). The lack of a unified definition and conceptualization of the teaching profession further complicates efforts to comprehend and address the preferences and needs of primary school teachers (Hendrikx, 2019). Although teachers possess many professional aspects, such as expertise and professional identity (Evans, 1997, 2019; Hendrikx, 2019), the complexity and multifaceted nature of the teaching profession requires an integral approach that accounts for all its dimensions (Freidson, 2001).

1.3 Knowledge gap

To effectively address the teacher shortage and develop targeted policies, it is necessary to identify different types of teachers based on job characteristics within the primary education sector in the Netherlands. However, this approach has received limited attention within the context of primary education in the Netherlands. Existing research often treats teachers as a homogeneous group, neglecting their potential variations in preferences, needs, and motivations (Hendrikx, 2019). Consequently, a knowledge gap exists in terms of in-depth, bottom-up qualitative information from teachers that would provide insights into the distinct profiles and corresponding characteristics of primary school teachers. Exploring the possibility of policies targeting specific types of teachers, rather than a one-size-fits-all approach, can facilitate a more decentral and targeted strategy to address the teacher shortage and retain qualified teachers. Such an approach has the potential to bridge the current gap between centralized policies and the decentralized nature of teaching positions.

Addressing these knowledge gaps and understanding the stakeholder complexity and multifaceted nature of the teaching profession will provide valuable insights for the development of policies and strategies to attract and retain primary school teachers in the Netherlands. By adopting an integral approach that considers the roles and responsibilities of stakeholders and acknowledges the

variations among teachers, policymakers and educational institutions can make informed decisions and ensure the provision of quality education in the Netherlands.

1.4 Research question

To conduct this study, where perspectives of primary school teachers will be analysed, the following research question is formulated:

> *"How can teacher profiles based on job preferences inform targeted policies aimed at reducing the Dutch primary school teacher shortage?"*

This research question will aim to explore the different perspectives and opinions of primary school teachers on characteristics of the teaching profession. Through an empirical analysis utilizing the Q-methodology, subjective qualitative information can be systematically and quantitatively analysed, yielding different teacher profiles. This approach provides a robust and comprehensive understanding of primary school teachers' preferences and consideration within their profession. Understanding the key factors that shape primary school teachers' decisions is crucial for developing policies and strategies that effectively attract and retain qualified educators. By refining existing policies based on empirical insights, policymakers can address the specific needs and preferences of different types of primary school teachers, ultimately promoting teacher satisfaction and retention. Moreover, on a local level, individual school boards tasked with finding teachers during periods of labour shortage can utilize these insights to adopt a more targeted approach in attracting a specific type of teacher and adjusting their recruitment strategies to align with the specific needs of this target group.

Implementing such targeted policies, both at a local and national level, holds significant potential for enhancing the quality of education in the Netherlands. By providing a satisfactory and professional environment for teachers and students alike, these policies contribute to an improved educational experience and outcomes. However, it is important to acknowledge the potential limitations and challenges associated with the Q-methodologies in this research context, such as the need for careful sampling, critical analysis of the obtained sample, and the limitations of interpretations of the obtained results.

1.5 Research objective

Based on the exploratory nature of the research question and the empirical methodology chosen, the following research objective is formulated:

- Identify possible areas for interventions to diversify or impose targeted policies based on outcomes of the teacher profiles.

1.6 Scope

The scope consists of the primary education sector within The Netherlands. The targeted research group for the empirical analysis are currently active primary school teachers. Excluded groups are: Retired teachers, teachers still studying to become a teacher, people interested to potentially become a teacher, recently quitted teachers. Furthermore, policies evaluated are existing and imposed policies. 'Intended or planned' policies that are not yet decided upon are not discussed. The thesis takes policies proposed until April 2023 into account and is written with the actions mentioned in the proposed coalition agreement of cabinet Rutte IV and the education agreement of 2022. The state of education 2023 was released short before the end of this thesis timeline, thus no significant elements of this report have been considered.

1.7 Linkage to the EPA program

The complex challenge of the teacher shortage in times where the quality of the Dutch education is decreasing is an example of a complex societal challenge. The MSc program Engineering and Policy Analysis deals with such complex societal issues where multi-stakeholder challenges with societal relevance are tackled. This research addresses how policies targeting the shortage of teachers can be aimed at specific teacher profiles using a mixed methods approach. This, to gain a more qualitative understanding of the Dutch teacher shortage in primary education from the perspective of the teachers themselves. This will be achieved with a quantitative backbone derived from newly gathered data using the Q-methodology. The use of a conceptual model, a critical analysis of the use of insights from individuals to influence a larger system and finally the analysis of the data to generate different grouped perspectives are all examples of EPA methodologies. The use of these different analytical methodologies considering the socio-political surroundings of the issue align with learning goals of the MSc program Engineering and Policy Analysis.

1.8 Structure of the report

After this introduction chapter 2 sets the context and scope of this thesis. This chapter also introduces the main research question. Next, the methodology and approach are introduced and explained in chapter 3 as well as the sub-questions tied to the main research question. Next chapter 4 discusses the literature review of the core concepts of this thesis. Chapter 5 shows the results of the analysis and chapter 6 describes the suggested policy interventions based on this research. Chapter 7 concludes this research with a discussion and suggestions for further research.

2. Research approach

This research adopts a three-part design to explore a more targeted solution to the Dutch teacher shortage. The aim is to identify possible areas for interventions to diversify or impose targeted policies based on outcomes of the teacher profiles. The three parts of this research project consist of understanding the multi-actor environment surrounding the shortage, delving into the attributes of the teaching profession that sway teachers' job decisions, and identifying policy opportunities based on the findings of a Q-methodology study on teachers' job preferences.

2.1 Part 1: The Multi-Actor Setting & Characteristics of the teaching profession

In Part 1, the focus is on understanding the multi-actor setting surrounding the Dutch teacher shortage and exploring the characteristics of the teaching profession that influence teachers' job choices. Through a comprehensive analysis of stakeholders' roles and responsibilities, coupled with insights from educational experts, this section aims to provide a contextual understanding of the teacher shortage. Additionally, by examining the defining characteristics of the teaching profession and conducting interviews with primary school teachers, this part seeks to uncover the factors that shape teachers' career decisions and their perceptions of the profession.

Sub-question 1: *What are the different stakeholders and their respective roles and responsibilities regarding the Dutch teacher shortage?*

- Conceptualizing the problem: In this section, it is important to provide a comprehensive overview of the current state of the Dutch teacher shortage. This will include statistical data, reports, and policy documents that highlight the severity of the issue.
- Actor analysis: Conducting a thorough analysis of the various stakeholders involved in addressing the teacher shortage. This will involve identifying key actors such as government bodies, educational institutions, teacher unions, and professional associations, and examining their roles and responsibilities in addressing the teacher shortage.
- Interviews with educational experts: Interviewing experts in the field of education to gather insights and perspectives on the teacher shortage and the efforts being made to alleviate it. This will provide valuable qualitative data to complement the quantitative analysis.

Sub-question 2: *What are the job characteristics of the teaching profession that influence teachers' job choice?*

- Conceptualizing the problem: Explore the concept of a profession and examine the key characteristics that define the teaching profession. This involves reviewing literature on the nature of professions, as well as specific studies on teaching as a profession and the job characteristics that attract individuals to the field.
- Literature review: Conduct an extensive review of relevant literature on teaching as a profession, job characteristics, and factors influencing teachers' job choices. This will provide a theoretical foundation for understanding the factors that shape teachers' preferences.
- Interviews with primary school teachers: Conduct interviews with primary school teachers to gain insights into their perceptions of the teaching profession, the factors that influenced their career choices, and their experiences in the field.

2.2 Part 2: Empirical analysis of teacher perspectives

This section delves into the empirical analysis of teacher perspectives, which forms the core of the research. By exploring and analysing the diverse perspectives of primary school teachers, this part aims to identify distinct profiles that reflect different preferences in job choice within the teaching profession. Through application of Q-methodology, the shared characteristics among these profiles

will be revealed, shedding light on the nuanced factors that influence primary school teachers in their career decisions.

Sub-question 3**:** *Based on the job characteristics of the teaching profession, what different profiles of primary school teachers can be identified?*

- Q-methodology: Utilize Q-methodology, a research method designed to explore the subjective dimensions of opinions and perspectives, to analyse and identify different profiles of primary school teachers. Q-methodology allows for a systematic exploration of individual perspectives and the creation of teacher profiles based on shared characteristics (Brown, 1980).
- Empirical research: Conduct empirical research using Q-methodology, involving primary school teachers who represent diverse perspectives within the profession. This research activity will collect and analyse data to identify commonalities and differences among teacher profiles.

2.3 Part 3: Evaluate Policies Targeting Primary School Teachers

Part 3 focuses on evaluating policies targeting primary school teachers, building upon the findings from Part 1 and the identified teacher profiles from Part 2. The objective is to assess the effectiveness of existing policies in addressing the preferences and needs of different teacher profiles. By analysing the alignment between policy measures and the shared characteristics of the teacher profiles, this part aims to provide suggestions for policy evaluations that can lead to the development of more targeted and impactful strategies to attract and retain primary school teachers in the Netherlands.

Sub-question 4: *What suggestions for policy evaluations can be made based on the found teacher profiles?*

- Utilize the outcomes of Part 1, particularly the analysis of roles and responsibilities of stakeholders, as input to examine current policies targeting the different teacher profiles identified in Part 2.
- Evaluate the existing policies and assess their effectiveness in addressing the preferences and needs of the different teacher profiles.
- Framework development: Develop a framework that will guide the research in addressing the relevant aspects to consider in evaluating policies targeting primary school teachers.
- Based on the findings, propose recommendations for policy evaluations that can lead to the development of more targeted policies to attract and retain primary school teachers effectively.

Altogether, the sub questions and research activities outlined in this research approach will contribute to gaining insights into the critical teacher preferences and factors influencing primary school teachers in the Netherlands. By investigating the multi-actor setting, the characteristics of the teaching profession, and the perspectives of teachers, this research aims to provide a comprehensive understanding of the teacher shortage and inform the development of targeted policies and strategies and with those insights answering the main research question: *"How can teacher profiles based on job preferences inform targeted policies aimed at reducing the Dutch primary school teacher shortage?"* The outcomes of this research have the potential to guide policymakers, educational institutions, and other stakeholders in their efforts to attract and retain qualified primary

school teachers, ultimately ensuring the provision of quality education in the Netherlands. Below the research flow diagram presents the described research activities in chronological order.

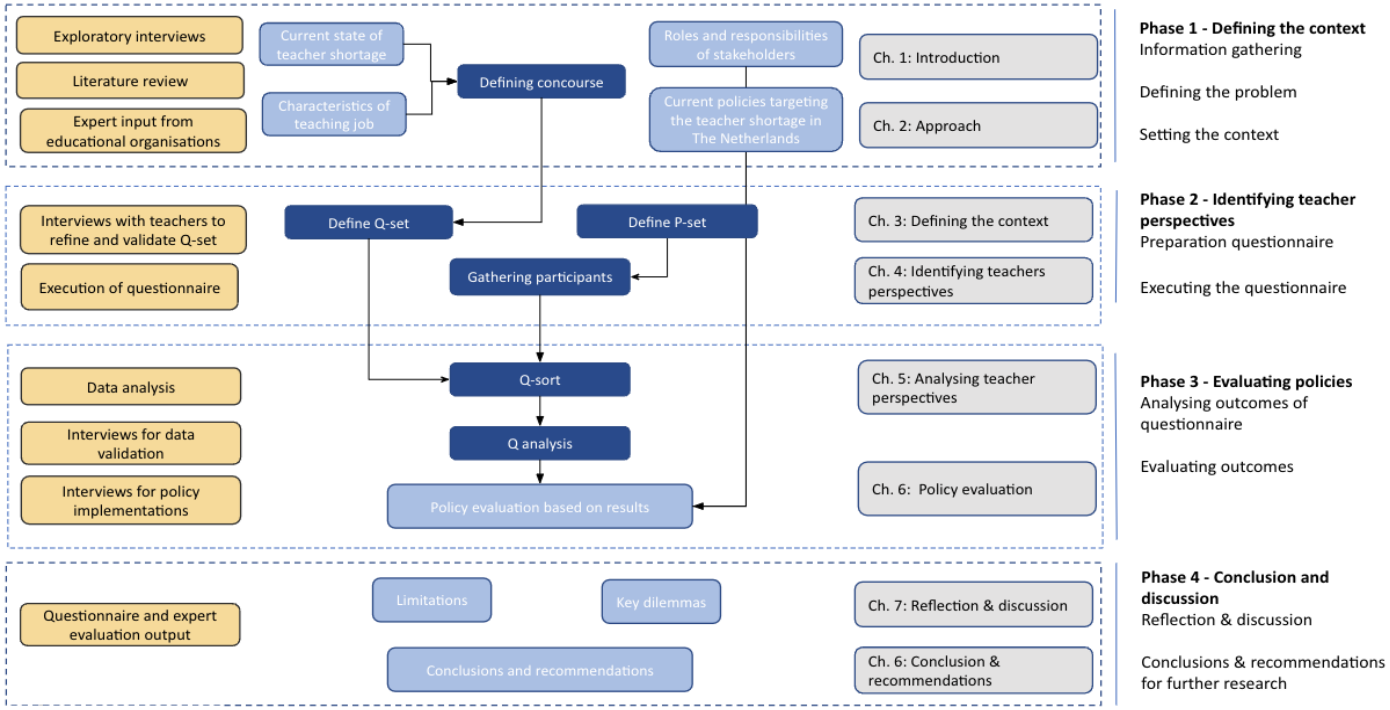


Figure 5. Research flow diagram

Part 1: The Multi-Actor Setting & Characteristics of the teaching profession

3. The multi-actor setting and its policies.

This chapter provides an overview of the multi-actor setting surrounding the teacher shortage issue in the Netherlands. It begins, in section 3.1, by examining the current state of the teacher shortage in the country, followed by a description of past and ongoing efforts to alleviate this shortage in section 3.2. The institutional organization of primary education is then discussed in section 3.3, leading to an exploration of the role of primary school teachers in section 3.4. This chapter aims to depict the current state and the associated complexities and challenges with the teacher shortage and its impact on the Dutch education system.

3.1 Context of the teacher shortage in the Netherlands

The shortage of teachers in both primary and secondary schools has reached critical levels in the Netherlands, posing concerns for its education sector (Inspection of Education, 2023). Recent data presented in December 2022 indicated that the primary school teacher shortage across the nation has reached 9.5% of the total employment, meaning that nearly one in ten primary school teachers is missing (Adriaens, Elshout, et al., 2022). This shortage translates to approximately 9,700 full-time jobs (Adriaens, Elshout, et al., 2022). The current shortage already had significant impact on the Dutch education system. One example was the reduction of the school week from five to four days in several primary schools in major cities across the country at the beginning of the 2022 academic year (NRC, 2022). More and more unlicensed replacement teachers are teaching primary school children as temporary stand-ins (Trouw, 2023).
Despite an estimated temporary reduction of the shortage due to a recent pay rise (Adriaens, Fontein, et al., 2022). the shortage is expected to grow again from 2026 and expected to be 2000 fte larger than the current shortage in 2032 (Adriaens, Fontein, et al., 2022).
Additionally, the distribution of the teacher shortage is uneven across the Netherlands. The Randstad area is experiencing a higher shortage compared to other regions. Especially the five large cities Amsterdam, The Hague, Rotterdam, Utrecht and Almere face much higher shortages with an average of 15,8% (Adriaens, Fontein, et al., 2022). Figure 6 below illustrates the unequal distribution of the teacher shortage in the Netherlands.

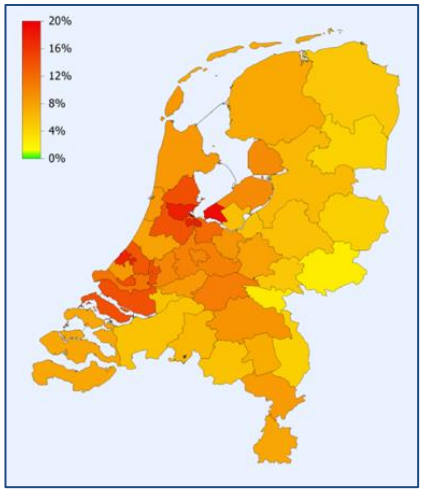


Figure 6. Teacher shortage per region in % (Source: Centerdata, October 2022)

Twenty years ago, The Netherlands used to score amongst the top countries on European education rankings in reading and writing. Two major international education quality rankers (PISA and TIMMS)

both established that scores of the Netherlands have decreased leading to a lower international rank (van Nieuwstadt, 2019). The trend of the Dutch PISA scores can be observed in Figure 7.

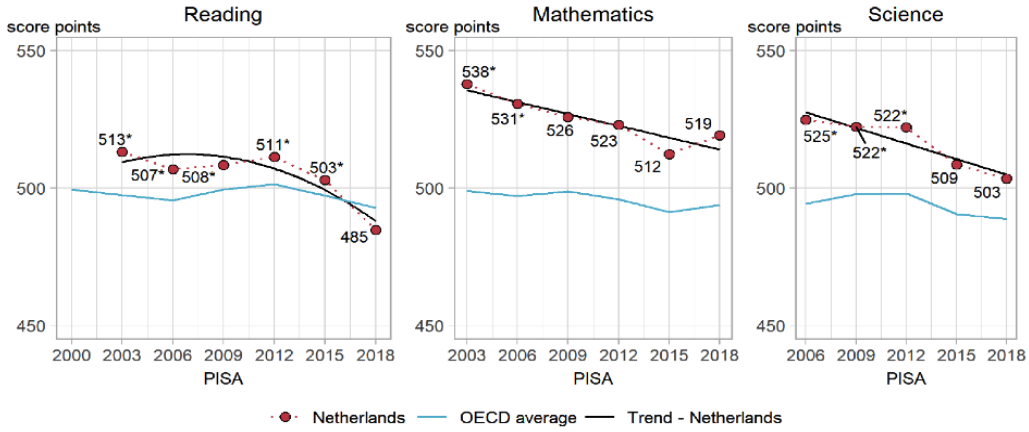


Figure 7. Trend of Dutch PISA scores between 2000 and 2018 ((OECD, 2023)

With an economy characterised as a 'knowledge economy', these developments have been a source of national debate. Due to this debate, the Central Planning Office of the Netherlands (Centraal Planbureau) conducted research to the lower international scores and rankings. The researched named several aspects to take into account before It concluded that it is hard to compare scores between countries and years due to changes in testing methods, change in the analysis, the growing number of participating countries amongst several other reasons (Verstraten et al.).
Already in 1993, the risks of the state of the teaching profession were described by the Committee Future Teaching profession (van Es, 1993). Here the future of the profession of the teacher was extensively discussed and ideas were discussed that would keep the profession attractive on the labour market to avoid future shortages. In 2007, Dutch senator Alexander Rinnooy Kan wrote more targeted research on the arising shortages. He predicted a large quantitative shortage of qualitative teachers in The Netherlands within the next fifteen years (Rinnooy Kan et al., 2007). In this research he conducted for the Dutch parliament he stated that the profession of teaching was not attractive enough in the future labour market due to the lack of professional development and low payment.
In more recent years multiple big reports have been published on negative trends within the Dutch education sector. Merel van Vroonhoven, a successful businesswomen who switched to being a teacher became independent encourager of the approach to tackle the teacher shortage wrote how the teacher shortage is the big urgent problem that needs to be solved before other problems can be addressed (van Vroonhoven, 2020). Consultancy firm McKinsey conducted research on the efficiency and adequacy of foundational education in the Netherlands analysis concluding among other things that there are not enough means to tackle teacher shortage, the high work pressure and the growing unequalness between schools (McKinsey&Company, 2020). In 2020, the council of education wrote five pillars on which policy should built, including the investment in teachers and school leaders, quality of reading, equality of opportunities and abilities for professional development (Onderwijsraad, 2020). The president of this council of education, Edith Hooge, wrote an expert contribution on the consequences of covid for education stating three pressing fundamental issues within the education sector. The first one being the decreasing level of reading writing and math, the second being the shortage of teachers and the third being the urgent need to diminish inequality of opportunities within the Dutch education system (Hooge, 2022).
Following the advice of Van Vroonhoven and Hooge among the many others, the government has to act as main problem to provide quality education to all children (UN, 2015). The government is

currently already undertaking several actions to reduce the teacher shortage (*Aanpak lerarentekort*, 2022).
The tension in the field is high, as seen from a demonstration organised by the largest teacher union, the 'Algemene Onderwijsbond'. to protest against the short-sighted solutions of the government and school board alliances in February, 2023 (Aob, 2023). What actions have been taken in the past, and what actions are being taken currently will be described in section 3.2, after which the complex and often regarded as 'overcomplicated' playing field will be displayed in section 3.3

3.2 The roles and responsibilities of stakeholders

The Netherlands has just over 1.4 million children in primary school, 128.000 primary school teachers, 6801 primary schools, and 854 primary school boards (The state of Education, 2022). Central policies are implemented on many different boards, schools, teachers and ultimately affecting children. To have a better understanding of what actors have which responsibilities in the approach to teacher shortage, an overview of the actors, their respective roles, levels of influence and relations between each other are presented in this section.
Below in Table 1, the main actors within primary education are presented. Next tot the name of the actors are their corresponding responsibility and influence type within the question of the teacher shortage issue. The scopes, corresponding to the level within the playing field that the actor is acting at, used in the table are as following: National (within the Netherlands), regional (within a labour market region), local (within the school), individual (within the classroom).

Table 1. Roles and responsibilities of main actors in de primary education sector

Actor	Responsibility	Influence type	Scope
Cabinet	Vision for next years, choosing areas of focus	Vision/Direction, creating political attention/urgency, raising wages of teachers	National
Minister of Primary and Secondary Education	Ministerial responsibility for acts and omissions of the civil service	Political attention for topics. Giving direction and orders to civil servants at the ministry	National
Ministry of Education, Culture & Science	Regulation, funding, direction, monitoring	Subsidies, framework for executing vision of minister, outsourcing research on current state	National
National education council	Independent adviser of the government and ministry on education	Research and bring attention to topics, enforcing a longer-term vision than a cabinet and minister	National
Inspection of education	Control the performance, results, and output quality of schools	Assess and monitor schools closely who are underperforming	National, Local
Unions (Aob, Fvov, CNV Onderwijs)	Representing teachers	Bargaining the CAO, representing teachers	National/ Regional
Primary education council *(PO-raad)*	Bridge between sector and government	Advising the cabinet and ministry, create urgency	National
Teaching Academies	Educating the next generation of teachers	Curriculum, application, facilitating internships	National/ Regional
Regional alliances	Supplying education for all students in the region	Divide tasks/responsibilities of schools within region	Regional

Municipalities	Supplying and maintaining school buildings and facilities	Moving location of schools, investing in facilities, giving out smaller subsidies for projects/teachers	Regional/ Local
School boards	Strategic HRM, strategic plans	Attract teachers, support school leader	Regional/ Local
School director	Directs education and organization of the school. Develops policy, provides supervision for (development of) teachers, connection with environment school,	Main point of contact for teacher, role of boss, personal contact, and connection with the teacher	Local/ Individual
Teacher	Managing the classroom, teaching children	Making choices for specific schools, staying in the profession	Local/ Individual

In order to gain an overview of the actors above, they are also presented in Figure 8 below. This figure shows the actors divided based on their type (governmental, public/institutions or private) and on their level of acting within the field. This gives a more nuanced image and understanding of the playing field. The overview is not exhaustive but provides an overview of main actors and frequently mentioned actors in research papers as well as reports and news articles.

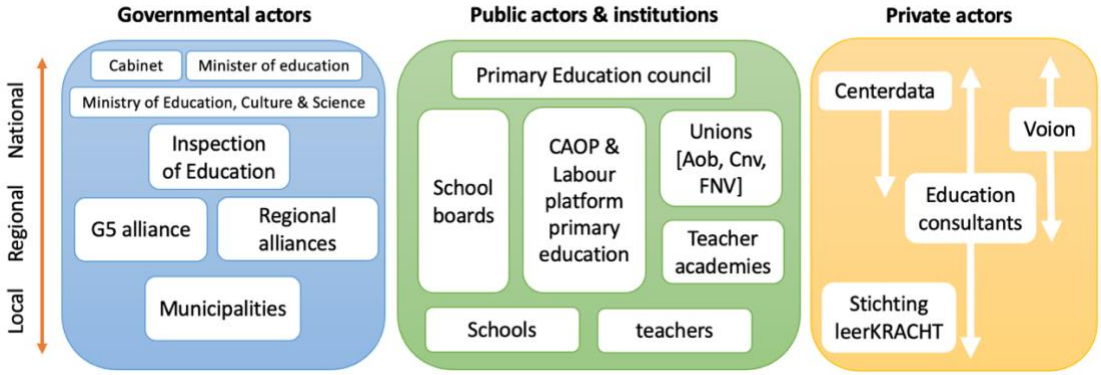


Figure 8. Main actors within primary education organised by type and level.

From the figure above it can be determined that quite a number of actors are present within this playing field. The levels of influence are often vaguer than they are in this figure. Meaning that actors often have influence on different levels making it quite a complex and overfilled playing field, leaving little room for each actor without interfering with another actor. This is also described by Edith Hooge in her PhD dissertation on teacher policy in VO and MBO, describing the playing field as 'a jungle of actors' (Hooge, 2017). Next, the actors are represented in a formal chart in Figure 9 below. A formal chart displays the main relations existing between actors within the primary education field. This gives more insights in the interplay between the actors.

Figure 9. Formal chart of main actors within the Dutch education field

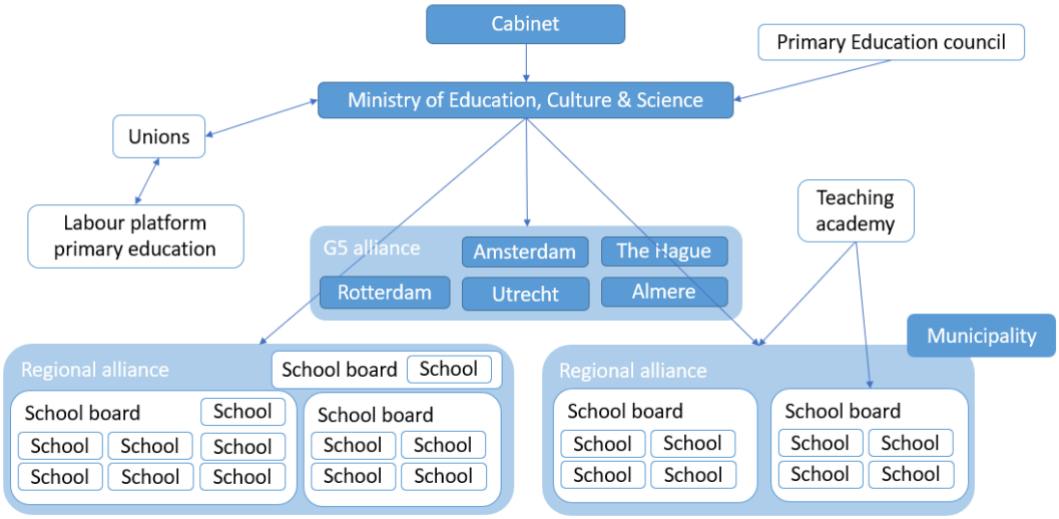


Figure 9. Formal chart of main actors within the Dutch education field

From the table and figure above, we get a good first inside in the playing field of primary education in the Netherlands. The next section will go into more depth of recent actions by the described actors in these sections. Main policies targeting the teacher shortage from different actors over the last two decades will be discussed and afterwards the difficulties of realising these policies are discussed, also based on the actor field as described here.

3.3 Policies targeting the teacher shortage

After introducing all the main actors of the primary education playing field, this section dives into their actions. This section provides a comprehensive review of the policies adopted and implemented by the actors described in section 3.2 over the past decades to address the issue of teacher shortages in the Netherlands. First, a short description of major historical policies regarding the teacher shortage are described in section 3.3.1, reviewing policies of the past and the extent of teacher involvement, examining the impact of these policies on the education system, and comparing strategies at both the national and local levels. Transitioning to the present scenario in 3.3.2, we delve into the current initiatives taken by the government, the Ministry of Education, Culture and Science. The focus here is on the six strategic pillars and additional national endeavours such as recently imposed laws. Furthermore, specific regional initiatives are described in section 3.3.3., with a particular emphasis on primary education alliances and approaches within an alliance of the five largest Dutch cities. Finally, we contemplate advised policies from external parties in 3.3.4, comparing their different policy recommendations.

3.3.1 Historical overview of policies and their impact

Beginning with a historical outlook, we reflect on several major policies enacted over the past two decades. The 'teacher agenda' (van der Meer et al., 2023), a comprehensive analysis of policies over the past decade, provides key insights. Key events include the introduction of lump-sum financing in 2006, providing financial autonomy to schools based on student numbers; the establishment and eventual dissolution of the 'Education Corporation'; the creation of the teacher union '#POinAction'; the initiation and subsequent pause on the national teacher register; and the formation of the 'Teacher Collective'. More recent initiatives include the National Program Education and the closure of the salary gap between primary and secondary education.

2006 - Extra financing - Lumpsum financing
Schoolboards receive a sum of money based on the number of students and are responsible for the division of that money. Schoolboards also decide in which salary scale a teacher belongs. This gave the ministry less control over education since they couldn't influence expenditure within schools. Instead, their control increased on results of education.

2011 – Event - Establishment 'Onderwijscoörporatie'
The establishment of the education corporation (Onderwijscoörperatie) was an attempt to unify teachers within the primary education profession and to create action on new policies that had difficulty coming through.

2017 – Event- Establishment of '#POinActie'
The teacher union #POinAction (#POin Actie) was a manifestation of a group of primary school teachers, starting as Facebook group, that mainly aimed to close the salary gap between primary and secondary education. Jan van de Ven and Thijs Roovers were the driving forces behind the organisation. They ended up with a demonstration of 60.000 teachers in The Hague

2018 – Event - 'Onderwijscoörporatie' dissolved
The 'Education corporation' (Onderwijscoörperatie) was discontinued after the failure of implementation process of a national teacher register.

2019 – Event - Teacher register on hold
For a long time, the professional identity of the teaching profession has been tried to solidify with a teacher register (lerarenregister). After a long political debate, the teacher register was withdrawn from the political agenda and the implementation processes were put on hold.

2020 – Event - Establishment of 'Leraren Collectief'
Teacher corporation established form the #poinactie group. With the aim to create a body of teachers to represent the teaching profession from a content perspective, not acting as union bargaining for the salaries of teachers.

2021–2023 – Extra financing - National Program Education (NPO)
In 2021 the government decided to invest in the education sector with a big sum of money invested through the 'National Program Education' (Nationaal Programma Onderwijs) often referred to as 'NPO sums' ('NPO gelden').

2022 – Extra financing - Closure of salary gap between PO and VO
In 2022 was achieved what had started through #POinActie in 2017, the closure of the salary gap between PO and VO. In de education agreement of 2022 this closure was realized with an investment of 919 in primary teachers' salaries. This leads to an average wage increase of 10%, or €5.300 on annual basis for a full-time teacher. School leader salary is also to increase, with 5% in 2023 and 11% over the next couple of years.

2023 – Extra financing – Structural allowance at schools with a high school weight
This labour market allowance (arbeidsmarkttoelage) is an addition for those teachers and school leaders working at schools with a high school weight, and thus with children with a more disadvantaged background. To provide extra support and incentives for teachers to work at these school, this allowance is made available. After the initial allowance for two years, it is now made structural.

3.3.2 Present scenario: Current actions and initiatives

Transitioning to the present, we observe several active initiatives from the Minister of Education and the Ministry of Education, Culture, and Science (www.aanpaklerarentekort.nl). Emphasis is placed on the six strategic pillars aimed at addressing the teacher shortage. These include improving the flow of teaching academies, promoting lateral entry, teacher retention strategies, activating 'quiet reserves', compensation and professional development, and exploring innovative organization models. The recent Education Agreement of 2022 (Onderwijsakkoord, 2022) outlines the distribution of the education budget, with a notable investment in primary teachers' salaries and several million dedicated to professional development and labour market allowances. Further, the letter to the parliament in July 2022 with an overview of current policies and their rated effect according to civil servants (OCW, 2022) will be discussed.

Six pillars by the Ministry of Education, Culture and Science

Below are the six pillars that represented the focus areas of the Ministry to tackle the teacher shortage within the country.

- **Improving the in-, through-, and outflow of teaching academies**. The aim is to make teaching academies more flexible and adaptive to different profiles of potential teachers. This to facilitate appropriate learning for everyone and abilities to accelerate or accentuate when necessary. Next, tuition fees for teacher academies are lowered in order to lower the burden and increase the attractiveness of the course.

- **Promote lateral entry of teachers**. The lateral entry subsidy was expanded on 1 September 2017. In this way, a wider group of teachers can use this subsidy. The possibilities for lateral entry will also be expanded for students with a background in higher education at a (shortened) part-time teacher training college.

- **Retention of teachers**. By pursuing more strategic HRM policy, employers are asked to professionalise strategies to retain teachers within schools. Further employers are also challenged to reduce absenteeism and to increase part-time factors of teachers.

- **Activating the quiet reserves**. Targeting people in the population with a teaching degree that are currently not teaching. Schools are subsidies when attracting these teachers to their schools. Further the ministry aims to get 1.000 people currently receiving a form of allowance from the government into an education job.

- **Compensation and professional development**. Ensuring that teacher salaries are competitive within the labour market and improving the ways in which teachers can be promoted.

- **Organising differently and innovative ideas.** Schools can organize their education differently. This can be done in a way that teaches the same number of students with fewer teachers (for example in units). It can also be done in other ways. For example, where teachers have more time for their own development or to reduce the workload.

Education agreement of 2022

The Minister of Education decided together with its social partners (PO-Raad, AOb, CNV Onderwijs, FNV O&O, FvOv, AVS) decided how to invest the education budget amongst the field. Below an overview how the total investment of €1.085 million specifically for primary education got divided in the most recent budget agreement (Onderwijsakkoord, 2022).

Table 2. Allocated budget as decided in the most recent education agreement of 2022

Investment category	Budget (in million €)
Higher salaries primary education to close the gap with VO	€919
Labour market allowance backlog (NPO means)	€73
Labour market allowance position school leaders	€35
Professionalization	€65
Total	€1.085

Further the education agreement has agreed to work out an extra allowance to all teachers working at complex (high weight) schools. This new national subsidy is a taken over from the municipality of Amsterdam who invested their G5 alliance subsidy in this extra allowance. This will also be described in the next section.

Overview of measures to address shortages

In a letter to the parliament in July 2022, an appendix was added with an overview of current policies and their rated effect according to civil servants (OCW, 2022). Examination of the provided information reveals insights into the measures and initiatives implemented to alleviate teacher shortages in the education sector. A translated version of this document can be found in Appendix E.

According to the document, most promising strategies include promoting second career paths for school leaders, subsidizing education cost for assistant teachers and support staff to becoming teachers, and guiding people living on an allowance towards their job in education.
The second career (zij-instroom) initiative is particularly noteworthy. This grant scheme provides significant financial support, up to €20,000 per participant over two years, for professionals transitioning into the education sector. The policy has been successful, contributing to a large and sustained increase in the number of teachers. Additionally, the SOOL initiative has been a successful approach to cultivate teachers from within the system. By providing grants of €5,000 per year for up to four years, it supports the training of assistant teachers or supporters to become fully qualified teachers. The program has been running since 2019 and has consistently been oversubscribed, signifying its high demand and positive reception among stakeholders. Finally, the initiative carried out by the Participation Fund for guiding job seekers towards employment in the primary education sector has also demonstrated significant success. Between 2019 and December 2021, this policy achieved over 3,200 resumptions of work, mainly in the education sector, but also in childcare, healthcare, and other similar sectors.

3.3.3 Regional Initiatives

Moving on to regional efforts, specific initiatives have been launched to address teacher shortages locally. Notable among these are the G5 alliance formed by the five largest cities in the Netherlands and the Regional Approach Teacher Shortage (RAP). Both initiatives represent a collective effort to address local teacher shortages through various means, including subsidies, new teaching models, professional development programs, and the implementation of emergency plans.

G5 alliance

Given the relatively large shortages of almost 15%, the largest five cities of the Netherlands (Amsterdam, Rotterdam, Utrecht, The Hague, and Almere) combined forces to tackle the shortages of teachers within their respective cities (Actieplan Lerarentekort Grote Steden, 2020). Separate monitoring reports were made to get a closer inside in the shortages of each neighbourhood within these five cities. These cities also received a number of extra subsidies to attract and retain teachers, these subsidies, and the money available for these subsidies are presented below.

A temporary law in place until august 2024 facilitates the executions of the G5 alliance plans to combat the teacher shortages (Slob, 2020). The following sums of money were divided.

Table 3. Subsidies G5 for the academic years 2020-2024

Municipality	Available €
Amsterdam	€ 27.288.844
Rotterdam	€ 21.874.526
Den Haag	€ 16.205.436
Utrecht	€ 9.137.553
Almere	€ 6.193.633

With this money subsidies for attracting more new individuals from another profession into the field of teaching were realised. These second career teachers are offered extra support and guidance in their trajectory to become certified teachers (VWS, 2020). The other general subsidy applied amongst all cities was a subsidy in order to create space and possibility to organise the school week differently (OCW, 2020). Further each city had the freedom to spend the subsidy in their own way leading to the following decisions per city.

- **Amsterdam** spends the subsidy on a salary supplement for all teachers in primary education, including (v)so. Teachers at schools with a higher school weight receive a higher allowance than teachers at other schools.
- **The Hague and Almere** are focusing on extracurricular supervision of (starting) teachers and are also investing in the deployment of more educational support staff and skilled workers.
- **Rotterdam** is making the resources available for all ten measures from the emergency plan. The municipality and school boards jointly select the measures for each school to match the specific problems of the individual schools and neighbourhoods as close as possible.
- **Utrecht** invests in strengthening the cooperation between teacher training programs and schools: together they will form the 'Utrecht Leert Opleidingsalliantie', aimed at developing initial training and professionalisation.

The school boards and municipalities of each city contribute at least one third to the implementation of the emergency plans through co-financing. The implementation of plans evaluated by the participating organisations and monitored by the ministry of education.

Regional Approach Teacher Shortage (RAP)

Next to the six pillars of the Ministry of Education it also encouraged regional collaboration to combat teacher shortages. This in order to prevent waterbed effect of the shortages with measurements taken too locally focussed. Subsidies were given by the national government to regions who wanted to work together, on a voluntary basis, to tackle employee shortages. 72 regions called ‘regional approach teacher shortage’ (Regionale aanpak personeelstekort onderwijs) or ‘RAP’ in short have been subsidized.

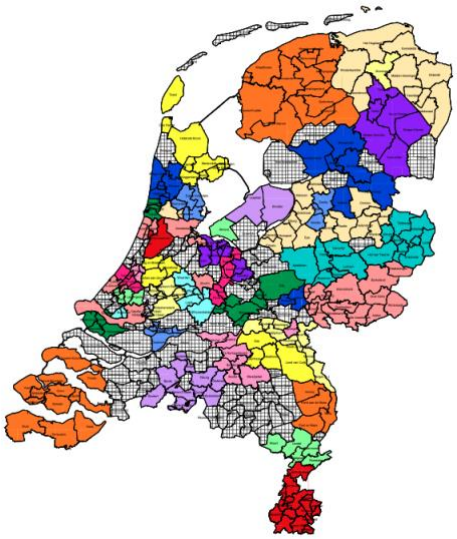


Figure 10. Regions awarded with subsidy in 2022 to tackle the teacher shortage together.

3.3.4 Recommended Policies by External Parties

Multiple parties have written advisory reports on ways to tackle the teacher shortage within the Netherlands. Below an overview of advice that has been widely discussed within the educational field. From these recommendations, we can get a grasp of the scope of ideas that have been proposed over the past five years. The main recommendations per report are presented in Appendix F. Comparing and contrasting the solutions to tackle primary school shortages in the Netherlands as outlined by these five different external advisors, reveals both unique and overlapping advices. All five sources – the Education Council (2018), Merel van Vroonhoven (2020), McKinsey & Company (2020), Lodewijk Asscher (2022), and Schleicher (2018) – highlight the importance of a cohesive, well-structured, and focused approach to address teacher shortages. This consensus underscores the fact that tackling teacher shortages is a complex issue that requires strategic and comprehensive planning.

A key commonality across all the reports is the emphasis on the quality of initial teacher education programs. The Education Council (2018) and McKinsey (2020) both propose enhancing these programs to attract and train more teachers effectively, and this idea is echoed in the other reports. This includes aligning training more closely with classroom practice, as advocated by Van Vroonhoven (2020) and Asscher (2022), and a focus on evidence-based teaching methods, as per McKinsey (2020).

Another important point of convergence is the improvement of working conditions and career prospects for teachers. Each source recognizes that attracting and retaining teachers requires addressing issues like workload, administrative burdens, competitive salaries, and career progression opportunities. Asscher's (2020) proposal to make working more hours financially more attractive and McKinsey's (2020) emphasis on effective leadership and school management align with these suggestions.

While each source supports a cohesive national strategy, Asscher (2022) and Van Vroonhoven (2020) specifically promote the idea of a coordinated regional approach. They suggest that addressing teacher shortages requires considering diverse regional situations. Asscher (2022) further proposes the establishment of regional organizations with the task and corresponding powers to ensure sufficient education personnel.

A notable difference across the sources is their focus on various demographic groups. For instance, while Asscher (2022) emphasizes the need to increase and maintain the inflow of career switchers into teaching, the Education Council (2018) suggests implementing recruitment strategies targeting individuals who might be attracted to teaching. McKinsey's (2020) focus lies on attracting high-

quality candidates to the teaching profession, underscoring the need for a diverse set of strategies to reach potential educators from different backgrounds.
Additionally, Asscher (2022) and Van Vroonhoven (2020) emphasize the role of evidence-based decision making more explicitly than other sources. They propose more rigorous monitoring, research, and data analysis to understand the causes and implications of teacher shortages and evaluate the effectiveness of different interventions. Although McKinsey (2020) also refers to the use of data and evidence, its emphasis is more on the effectiveness of resource utilization.
International comparisons as published by Schleicher (2018) provide further strategies for consideration, highlighting successful practices from other countries facing similar challenges. These include recruitment and retention strategies, as well as structural organizational changes in the education system.
In conclusion, while each source offers unique perspectives and suggestions, the overlaps in their proposals indicate a broad consensus on some fundamental strategies to tackle teacher shortages. A comprehensive, evidence-based approach focusing on enhancing teacher education, improving working conditions, facilitating regional coordination, and implementing effective recruitment and retention strategies emerges as a common thread across all sources.

3.4 Concluding remarks on the policies within the multi-actor setting.

The Dutch teacher shortage is a deeply rooted issue, embedded within a maze of intersecting influences, responsibilities, and a multitude of diverse actors. These actors and institutions operate across several levels - from national to individual - each holding a role in the broader context of the Dutch primary education sector. This chapter delved into its ecosystem, analysing the roles and responsibilities of key players such as the Ministry of Education, Culture & Science, the education council, and regional alliances, among others.
Through history, these actors have launched various initiatives to mitigate the teacher shortage. Yet, the crisis is still current and severe, suggesting the need for more refined and comprehensive strategies. The intertwined and scattered influences and responsibilities within this actor network necessitate collaborative and coordinated efforts from stakeholders, as depicted by the 'overcomplicated' landscape in Figure 5. A question we can ask in this vein after evaluating teachers job preferences: *How can we assign specific responsibilities related to the teaching profession to specific actors?*

The allocation of subsidies is one of the points of consideration. Government initiatives dispersing subsidies across different cities and regions have led to varied implementation of these funds. A closer look at Figure 7 reveals the inconsistency in subsidy distribution for teacher shortage issues in 2022, raising concerns about regions devoid of collaboration and subsidies. This discrepancy prompted Lodewijk Asscher's (2022) proposal for a more structured regional division of labour market regions to ensure holistic inclusion of all schools and regions in policies.
Additionally, within the G5, each city, except The Hague and Almere, has adopted unique approaches to tackle the teacher shortage. This diversity may arise from local issues or experimental attempts at finding viable solutions. In this regard a question we can ask after evaluating teachers job preferences: *Can we identify reasons to plead for a more unified application of central subsidies or is a varied application of these subsidies more suitable to stimulate initiatives?*

Discussions on responsibility and governance in education are fraught with sensitivity. School boards often perceive a threat to their autonomy, and the Ministry of Education, Culture, and Science (OCW) finds it challenging to outline clear expectations. The administrative middle field, including entities like the PO-Raad, unions and the Education Inspectorate, have demonstrated a focus on control and rule proliferation (Geelhoed, 1986; De Glenn & Groof, 2002, Hooge 2014), leading to less room and trust for the teacher as a professional. 'Social partners' within this landscape, including the PO-Raad,

all unions together with both national and local governments, have woven an intricate web of rules. These guidelines have morphed into covenants, protocols, standards, frameworks, and 'good practices,' collectively referred to as 'soft governance' in the literature (Brandsen, Boogers & Tops, 2004; Sauder & Espeland, 2009). While these rules may have been formed with good intentions, they often constrict professional teachers, diminishing their trust and limiting their scope to operate from expertise. For this topic on autonomy and governance structures we can ask the following question after evaluating teacher's job preferences: *How can we maintain room for the autonomy of the teacher as a professional whilst implementing clear goals and expectations by institutions in the primary education sector?*

Given that this large number of actors leaves little room for progress in the web of policies, and little room for the teacher to operate, this thesis will now aim to bring the focus back to the perspective of the teacher as professional, what does the teacher as a professional want and need? Therefore, the final question that arises from this chapter is: *Can we impose targeted policies on different types of teachers to attract and retain them more effectively within the profession?*

Before we can answer all these questions it is important to turn to the literature on teachers as professionals. Raising questions as "Who exactly is the teacher as professional? "What are the defining characteristics of teachers within the teaching profession?" Chapter 4 will delve into the characteristics of the teaching job as profession.

4. Characteristics of the teaching profession

To identify different profiles of teachers it is important to create a representative list of statements for the Q-methodology in this research. Therefore, it is necessary to determine the characteristics that need to be considered. To identify the main job characteristics of the teaching profession we turn to literature regarding the teaching profession. That also raises the question what defines a "profession". This is the question that this chapter will start with. Subsequently this definition will be set in the context of the teaching profession. What elements of a profession are relevant when analysing job preferences of the palette of current teachers? And what other elements characterized by any occupation should be considered? After analysing the literature regarding teaching as profession and teaching as occupation, this chapter will conclude with outlining the relevant characteristics of the teaching job relevant for the scope of this research. These characteristics will be used as basis to formulate statements that will serve as input for the Q-methodology introduced in the next chapter.

4.1 Teaching as profession

The Oxford English Dictionary (2010) describes a profession as involving an occupation, knowledge, and formal qualification. The definition of a profession provided by (Webb & Webb, 1917) adds the aspect of the supplying of a service to others. Brown (1992) writes a book called 'The Definition of a Profession' where the definition is as following "The authority of metaphor in the history of intelligence testing". The academic literature on the definition of 'profession' is extensive, and no single definition is applied everywhere. The complexity in defining the term 'profession' arises from the many characteristics associated with the definition. The definitions outlined above present the core pillars of the definitions found in sociology literature.

Ingersoll and Perda (2008) as backbone for 'teaching as profession'

To provide an in-depth understanding of the teaching profession, the work of Ingersoll and Perda (2008) forms the backbone of this first section. The authors present a thorough and nuanced examination of teaching as a profession. Especially Ingersoll's research is renowned in the world of education research and the material is frequently referenced in that regard.

Ingersoll and Perda (2008) challenge the conventional understanding of teaching as a semi-profession. According to them, teaching exhibits several traits commonly associated with professional occupations. These include prolonged specialized training, a specialized body of knowledge and skills, the provision of a crucial public service, a significant degree of autonomy, and a professional organization overseeing the standards of practice.
However, the authors also underscore some notable contrasts between teaching and other high-status professions. Notably, they point to issues like comparatively lower levels of compensation and prestige, and the inadequacy of decision-making power at the workplace. These disparities, as argued by Ingersoll and Perda (2008), may also undermine the professional status of teaching and affect teachers' job satisfaction and retention. However this research does not focus on the question whether teaching is a profession, as done Noddings (2003) and Cohen (2008). This research aims to identify what aspects of the profession are deemed most relevant when choosing a job within the profession.

Another observation is the differentiation between occupation and profession that Ingersoll & Perda mention. Other literature dives deeper into this differentiation. Profession is seen as an extension on the definition of an occupation according to Yadin et al. (2021) and (Goode, 1961). Below, the figure shows a simplified version of the extension that the aspects of a profession are on the aspects of an occupation. Professions have those aspects that occupations don't entail, making them stand apart and giving them their prestige among other characteristics (Yadin et al., 2021).



Figure 11. Aspects of a profession in extension of the aspects of an occupation

Ingersoll and Perda's (2008) study serve as a critical point of reference for understanding the professional status of teaching and the intrinsic and extrinsic factors that can influence teachers' job choices. Their findings help in identifying the characteristics of the teaching profession that are of significance for the scope of this research and will be considered in the design of the Q-methodology in the succeeding chapter. To further elaborate on the definitions of the term "profession" discussed earlier, an array of literature is analysed next to Ingersoll & Perda (2008). The most frequently occurring characteristics in literature created an overview of the characteristics of a profession and are summarized in Table 3 below.

Table 4. Literary analysis of the characteristics of a 'profession' in relation to teaching.

Characteristic of 'profession'	Description	Sources
Aspects of a teaching as profession within the scope of his research		
Professional development	Ongoing opportunities, support, and participation in development of the professional.	(Barber, 1963; Brown, 1992; Cruess et al., 2004; Ingersoll & Perda, 2008; Sullivan & Benner, 2005; Wilensky, 1964; Yadin et al., 2021)
Specialisation	The built-up knowledge and skills in the Specific area or domain which the profession covers.	(Barber, 1963; Brown, 1992; Cruess et al., 2004; Ingersoll & Perda, 2008; Sullivan & Benner, 2005; Wilensky, 1964; Yadin et al., 2021)
Autonomy over decision making	Control and legitimacy to act within their work. Trusted over decision-making on the job.	(Freidson, 1999; Ingersoll & Perda, 2008; Sokolowski, 1991; Tapper & Millett, 2015)

(Relatively high) Compensation levels	Well compensated with relatively high salary throughout career in comparison to 'non-profession' occupations.	(Ingersoll & Perda, 2008; Yadin et al., 2021)
Service to others	An ideal of responsibility to act for the public good and to those who need it (altruistic)	(Barber, 1963; Freidson, 1999; Sullivan & Benner, 2005; Webb & Webb, 1917)
Aspects of a profession not included in this research		
Formal Qualification required	A diploma or license for which formal and specialised education was needed	(Brown, 1992)
Induction and mentoring for entrants	Mentoring program for those entering the profession	(MacBeath, 2012)
Prestige	High social status of people acting within the profession. Respected and envied individuals.	(Ingersoll & Perda, 2008; Yadin et al., 2021)
Self-regulation	An active representing professional organisation or association is present. Governance and regulation occur by and from within the professional body.	(Barber, 1963; Freidson, 1999; MacBeath, 2012; Sullivan & Benner, 2005; Yadin et al., 2021),
Code of ethics	Adhering to a set of high moral standards (codes of conduct) followed by everyone within the profession.	(Barber, 1963; Cruess et al., 2004; Freidson, 1999; MacBeath, 2012; Sullivan & Benner, 2005; Tapper & Millett, 2015; Yadin et al., 2021),

The characteristics of a 'profession' highlighted in Table 3 all hold relevance to teaching in certain ways. Nonetheless, this research narrows its scope to focus on characteristics that literature identifies as significant when exploring job preferences among current teachers. Based on the literature research these include professional development, specialisation, authority over decision-making, relatively high compensation, and service to others. Below the reasoning for excluding several aspects from this specific research project.

- **Formal Qualification Required**. The issue of formal qualification pertains more to the boundaries set for entering the teaching profession and does not directly impact a teacher's job preferences once in the profession. Even though debates about increasing or decreasing entry qualifications to attract more or higher-quality teachers are important, these discussions revolve around the content of the profession, not job choice factors.
- **Induction and Mentoring for Entrants**. Mentoring and support for new teachers is an important issue, often named by researchers in literature. However, it doesn't directly influence job preferences for the wider teaching profession. As this research doesn't focus specifically on new teachers, this aspect is considered outside its scope due to the nature of analysis where all questions are posed to each participant.
- **Prestige**. Societal perception significantly influences the attractiveness of any profession, thus also the teaching profession. However, this is a broader societal construct, not an individual job preference. Teachers individually have little to no influence over the profession's prestige, and changes in this regard need to be affected at the societal level. Hence, within the context of this research's bottom-up approach, prestige is left out of the scope.
- **Self-Regulation.** The concept of a profession being self-regulated can impact policy, actors, and the professional landscape as a whole. However, it is not directly pertinent when

considering individual job preferences within teaching. The lack of a self-regulating professional body for teachers does not play a significant role in teachers' job choices. While this characteristic is outside the research scope, it may have relevance when interpreting the outcomes of the Q-methodology.

- **Code of Ethics**. In many professions, adherence to a code of ethics or conduct is a prerequisite. However, within the teaching profession, no such code exists. If it were present, it would not be considered a 'job preference,' as adherence would be obligatory rather than an option. Consequently, this aspect is left out of this study's scope.



Figure 12. Aspects of teaching as profession

Overall, the research focuses on those aspects of the teaching profession that are most pertinent for understanding and analysing teachers' job preferences. These selected characteristics will form the foundation for the Q-methodology in the following chapter, and therefore will be analysed in more depth within this chapter to create a better understanding of the theory behind these aspects.

4.1.1. Professional development & Specialisation

Besides the following of initial education and gaining of qualifications to enter a profession, the continued development of skills and knowledge in the duration of one's career is seen as a key characteristic of any profession (Guskey & Yoon, 2009).
Jackson (1974) referred to professional development in relation to the teaching profession as where "the motive for learning more about teaching is not to repair a personal inadequacy as a teacher, but to seek greater fulfilment as a practitioner of the art". With this definition of professional development in mind, we can interpret the characteristic of professional development as a teacher's journey to becoming a professional of a higher standard in their work.
To enable their professional development, teachers must be facilitated to do so within their working environment. This includes the provision of workshops, financial support for conferences, encouraging opportunities to learn from colleagues, trainings, and courses by the schools where the teachers work (Ingersoll, 2018; Randi & Zeichner, 2004). By attending and prescribing to such practices as to promote their professional development, teachers open themselves to opportunities of growing within their roles or grow into new roles. As stated by García and Weiss (2019): "Continuous learning via professional development helps teachers… advance in their careers". In this

vein, the possibilities of developing into other roles, i.e., to advance in the career, within a teacher's school must also be facilitated. Thus, professional development requires support (e.g., training, positive colleague collaboration environment) and opportunities (e.g. promotion) (Villegas-Reimers, 2003).
The issue of professional development within the teaching profession has been subject to much discussion in recent years (Ingersoll, 2018). Much of this discussion involves the link between professional development and improving education (Guskey, 2002; Reed, 2000). Another portion of the discussion is devoted to the link between professional development and teachers' job satisfaction / attrition. Croft, Guffy and Vitale's (2018) research revealed that lack of possibilities for career development was the second most cited reason for the lack of interest in a teaching career for the individuals interviewed. Johnson and Birkeland (2003) provide evidence of a causal link between teachers' attrition and school environments where professional development is not facilitated. This is supported by García & Weiss (2019), who argue that a working environment where professional development is facilitated, has a direct effect on teacher retention and recruitment. Booth et al. (2021) find that teachers' professional development needs vary and that these needs, especially for those looking to progress to other teaching roles, are not met.

Professional development is a concern for all teachers (Jackson, 1974) and professions (Guskey & Yoon, 2009), the Netherlands is no exception. Dutch primary school teachers have a robust system for skill and knowledge enhancement, supported by various training opportunities and learning avenues such as workshops, financial support for attending conferences, and opportunities to learn from colleagues (Van Veen, 2010).
However, this professional development is not formalized in any manner and thus facilitated and emphasized differently between schools, partly due to a lack of shared professional image of the profession (Snoek et al., 2020). Needing this shared professional image of the job is crucial to create a formal infrastructure for professional development (Ros et al., 2020).
Next, generically speaking, potential for career progression is limited (Beijaard, 2020). This lack of vertical mobility can lead to stagnation and frustration. Teachers need to see a clear pathway to advancement and leadership positions within their profession. The absence of such prospects might cause teachers to question their long-term commitment to the profession. These observations align with the findings of Croft, Guffy, and Vitale (2018), who highlighted that the lack of career development opportunities was the second most cited reason for the lack of interest in teaching careers among their respondents. Johnson and Birkeland (2003) also suggested a causal link between teacher attrition and environments where professional development, including career progression, is not facilitated.
In summary, professional development is a very relevant job characteristic to analyse when it comes to job preferences. Given the situation of no formal infrastructure in place for professional development leaving it to individual school (boards), it could be an interesting job characteristic that teachers consider when choosing their job. Further it is relevant to test the experience of teachers when it comes to the limited opportunity for career development into different functions. Do options that do arise in schools influence job choices? To creating a better understanding in the attraction and retention opportunities these elements will be considered when formulating statements for the Q-study.

4.1.2. Authority over decision-making

Due to the knowledge, skills and qualifications achieved within the clearly defined field of expertise and the formal qualifications required, professionals are considered to be experts within their field. These experts are assigned a "substantial level of control" (Ingersoll et al., 2018), thus being able to exercise significant authority and self-governance over their work (Ingersoll et al., 2018). Sehrawat

(2014) mentions the importance of teachers having autonomy because "when they are free to teach, they teach more efficiently".
The distribution of authority and control within the teaching profession is a topic of much debate (Ingersoll et al., 2018). There exists a certain level of confusion on this topic in the literature, as on one side the issue of 'authority' is treated as one of the *autonomy* of teachers over decision-making in their classroom and work. On the other side, the issue of authority is treated as the power over school-wide decisions such as budgets and the hiring of staff (Ingersoll et al., 2018). In this thesis, we treat the topic of authority as that of the individual teacher, their *autonomy*, specifically on their ability to make decisions within and about their day-to-day work.
Deconstructing the nature of teacher authority over their decision making is challenging, as teacher autonomy is "a constantly evolving concept" (Pearson and Moomaw, 2005). Turning to the literature on autonomy in the workplace, we can synthesise MacBeath's concept of work autonomy (MacBeath, 2012) with Berry's concept of occupational autonomy (Berry, 2012) to identify the nature of a teachers authority as: Autonomy whereby the teacher maintains control over their activities and knowledge, meaning the journey of the day-to-day teaching tasks are of the teacher's own determination, but the final destination is predetermined beyond the teacher's authority. This is exemplified by the following dilemma: the extent to which teachers are able to determine how they approach and go about the tasks associated with their job (This work consists different types of tasks, including educational, social and administrative tasks (Ingersoll & Smith, 2003), whilst being constrained by teaching to the national end terms of the curriculum and the organisational structures they fall under such as "contracts, administrators, school regulations, curricula, and student's desires, demands and expectations" – (Ramos, 2006). If we may define a teacher's autonomy as the ability to respond to the dilemma above, it is inherently important to consider the context of time and space (Wermke & Höstfält, 2014). Meaning we must consider the national context at the time in an analysis of teacher autonomy.
Whilst considering the context at the hand of a theoretical understanding of teacher autonomy is a useful guideline for discussion, it must be acknowledged that there is no definitive measure of a teacher's authority over decision making (Parker, 2015). As such, numerous studies on the importance of teacher authority making, such as the effects of this characteristic on teacher wellbeing (Pearson & Moomaw, 2005), attrition (Worth & Van den Brande, 2020); Smithers and Robinson, 2003), quality (Ingersoll, 1997; Sahlberg, 2011), and job satisfaction (Skaalvik & Skaalvik, 2014), employ teacher's *perceptions* of their authority over decision making in their analyses. It is the *perceptions* rather than any specific objective *reality* that is considered in an analysis of the impact on teachers of the authority over decision making. Ingersoll (1997) points out that employees, in this case teachers, are oftentimes in the best position to know what the reality of the conditions are. It is their perceptions and experiences that shape their subsequent actions, rather than this being dictated by an objective reality.
Thus, it is important to evaluate teachers' authority over decision making from the viewpoint of the teacher whilst taking account of the constraints set on this authority in a specific contextual setting. Such an analysis is performed by Salokangas et al. (2020) by means of interviewing Finnish and Irish teachers, to gain an understanding of their perceptions of their decision making and control within their national contexts. The results of this study show that levels of control over teacher's decision making, seen for instance in levels of trust awarded to teachers by their superiors or conversely levels of accountability regimes such as inspections, significantly impact teachers' perception of their own authority (Salokangas et al., 2020).

4.1.3. Compensation levels

Financial compensation, i.e., earning a salary, is a key characteristic of any job. What sets this characteristic apart when considering 'professions', is that 'professions' are met with a relatively higher compensation than other occupations only for the teaching profession this does not apply

(Ingersoll & Perda, 2008) and the Netherlands is no exception is this regard. There is extensive literature exploring the impact of salary on various aspects of the teaching profession, including teacher attrition, (Gonzalez et al., 2008; Imazeki, 2005), teacher motivation ((Alam & Farid, 2011; Yuan et al., 2013), and teacher quality (Figlio, 1997; Hanushek & Rivkin, 2007). This array of literature is both vast, and subject to much discussion (Ingersoll & Perda, 2008).
There is much debate surrounding the compensation that teachers on average receive, which empirical evidence shows is low relative to a number of other 'professions', next to obviously the lawyers and surgeons, also accountants, architects or veterinarians rank higher than teachers in terms of average annual salary (Ingersoll & Perda, 2008). Mills (1951) goes as far as saying that teachers are the "economic proletarians of the professions". It is a common comment heard that individuals do not enter the teaching profession for the money (Graus, 2007).
According to a report from the Algemene Onderwijsbond, a significant portion of recently graduated teachers look for a job outside of the teaching profession due to the possibility of earning a higher salary in a different career (Sikkes, 2015). This statement is supported by data shown in the OECD's Education at a Glance report of 2022; that primary school teachers in the Netherlands earn 25% less than workers in other professions with similar education levels (OECD, 2020). With an average income of €5.100 per month for a primary school teacher in the Netherlands, this is 1.3x the Dutch average income (Rijksoverheid).

According to (Van der Werff, 2017) this wage gap becomes even more apparent when comparing primary school teachers' salaries to market standards. The starting salaries for teachers may be competitive, but the room for growth and salary advancement seems to be limited, leading to dissatisfaction and discouragement among teachers. This sentiment is echoed by findings from the "Happiness among teachers" report by Burger (2017).

4.1.4. Service to others

There is a strong consensus in the literature on the profession of teaching that "a service to others" is a fundamental aspect of the teaching profession. Inslow (1956) goes as far as stating that of the teaching profession's characteristics, "the sine qua non is found in service".
In this context, a 'service to others' is interpreted as exerting a positive impact and influence on society; in other words, contributing to the public good. It is hard to argue against the significant contribution to the public good provided by teachers. Teachers are regarded as essential to the quality of the Dutch education system (Onderwijsraad, 2013). Teachers facilitate this education; they impart knowledge on the next generation. Through helping and educating children, they are directly in service to others, and thus contributing to the public good.
The teaching profession offers various outlets for the individual entering the profession to contribute to the public good. They may regard simply being a teacher as fulfilling this need. Or they may choose to teach children from more deprived socio-economic backgrounds, children who require specialised education of some sorts, or feel a stronger motivation to enter the profession because of the significant shortage of teachers in the current climate. What all these aspects have in common is that they inherently involve the teacher serving others.
This characteristic of the profession features prominently in the research surrounding the motivation of individuals to enter the teaching profession. In as early as 1928, (Lee, 1928) found that "I desired to be of service to others" carried some of the most weight in the motivation of individuals to enter the teaching profession. This result was corroborated by (Gould, 1934), who found "teaching offers a means of service to mankind" as a highly significant factors in influencing the choice by individuals to become a teacher. Similar studies carried out over the years by the National Education Association (1972, 1982, 1987, 1992), the largest labour union in the United States, found that a significant proportion of teachers were motivated by their will to "serve society", and that this proportion of teachers remained constant over time. Miech and Elder Jr (1996) corroborate these statistics,

denoting that not only is service to others a major characteristic of the profession of teaching, but that individuals who list service to society as a main motivation in their choice of career, are most likely to enter the teaching profession.
Studies specifically focused on the teaching profession in the Netherlands reflect similar results. Fokkens-Bruinsma et al. (2015) find that primary school teachers (in training and present) primarily choose the profession because they want to teach children and positively shape their future prospects. A research paper by the Sociaal Cultureel Planbureau (2006) corroborates these findings, arguing that the imparting of knowledge on children takes the lead in motivational aspects in entering the teaching profession.
The amount of literature and the historical and international stability of the consensus on the characteristic of 'service to others' reflect the importance of its inclusion in any analysis of the teaching profession.

4.2 Teaching as occupation

Next to the professional aspects of the teaching job, general working conditions relevant to any occupation also play a significant role in choosing a job within the education field. Literature on the importance of school working conditions and teacher characteristics for job satisfaction is extensive, for example Toropova et al. (2021) is a paper covering exactly this. In these papers the role of a contract, the school leader, colleagues, and school facilities are discussed in detail. Papers as Toropova et al. (2021), Sims (2017), Borman & Dowling (2008) and Cörvers (2014) give an overview of the most relevant conditions for teachers and will be discussed in more detail below.



Figure 13. Aspects of teaching as occupation

Contract
Within the Netherlands 55% of primary school teachers work parttime. From this 55%, 14% works less than 0,5 fte and 41% works 0,5 – 0,8 fte (Ministerie van OCW, 2021). This percentage is a lot higher compared to secondary schools where 38% of teachers work parttime (Ministerie van OCW, 2021). Within the entire Dutch population this is 36% (OECD, 2021). The Dutch Social Economic Council (SER) indicated that more working hours, thus fte, per teacher would be an effective measure to tackle the labour shortage within primary school (SER, 2022). van Hassel et al. (2022) conducted research on factors that would influence parttime workers to increase their fte and what school leaders could do to increase the fte of employees. The thesis of van der Mijl (2022) also researched which flexible contract agreements would help increase the number of fte of primary school teachers. Research on the effects of part-time teaching show that a higher level of stress is observed amongst part-time teachers compared to full time teachers (Seibt et al., 2012). Further, part-time teaching leads to a higher workload experienced by teachers compared to full-time teachers (Young & Brooks, 2004).

When it comes to contracts given to teachers, in general, job opportunities have been large, therefore the need for permanent contracts has been low (Rothstein, 2015). Importance of temporary or permanent contract heavily dependent on state of economy (Hanushek & Rivkin, 2007). In times of economic hardship permanent contracts will be of more importance for teachers, whilst in times of economically prosperous times employers are keener to give teachers permanent contracts to keep them within the schools (Hanushek & Rivkin, 2006). Regardless of the state of the economy, starting teachers do struggle with their first contracts (Brock, 2016). They often start with several permanent contracts and with a lower number of fte than they want (Prokic-Breuer et al., 2020).
Recent updates presented in the state of education of 2023 show that the percentage of permanent contracts has increased slightly (OCW, 2023).

Location
The geographical location of a school can significantly influence a teacher's job preference. Factors such as travel time, accessibility, socio-economic characteristics of the area, and proximity to a teacher's residence can influence their willingness to accept a job offer (Gershenson, 2013). The location of a school can also directly impact the socio-demographics of the student body, which, in turn, can impact teacher job satisfaction (Borman & Dowling, 2008). However, the influence of school location varies across individuals, suggesting it to be a personal preference that holds different weights depending on other job aspects (Cörvers, 2014).

Supervisor – The school leader
Supervision plays an integral role in the teaching occupation, primarily delivered by a school leader. The school leader's guidance is pivotal in shaping teacher experiences, directly influencing their job satisfaction (Arbeidsmarkplatform PO, 2020). Anderman (1991) found that school culture and principal leadership play a significant role in teacher job satisfaction and commitment. Similarly, Dutta and Sahney (2016) found that school leadership significantly impacts student achievement mediated by school climate and teacher job satisfaction. Thus, a school leader's role extends beyond administration; they are instrumental in shaping school culture, driving teacher motivation, and indirectly influencing student outcomes (Ingersoll & Smith, 2003). Further, school leaders are found to have the most direct influence on the experienced work pressure by teachers, often found to be an important aspect (Hummel, 2019). Whilst the work contract of a teacher is officially with the school board, the direct guidance and feedback mostly comes from the school leader (Ingersoll, 2009). The school leader plays a large role in teacher satisfaction (Arbeidsmarkplatform PO, 2020).

Colleagues
The impact of colleagues on job satisfaction cannot be understated. Teachers who perceive a strong support system among their co-workers have been found to experience higher levels of job satisfaction (Sims, 2017). Regular collaboration and cooperation among teachers foster a supportive and inclusive school environment, which not only enhances job satisfaction but also improves teaching efficacy (Admiraal, 2021).

Facilities
School facilities, including building conditions, access to teaching materials, and Information and Communication Technology (ICT) resources, significantly influence teachers' job satisfaction and teaching efficacy (Toropova et al., 2021). Poor facility conditions can be demoralizing, whereas well-maintained, resource-rich environments can motivate teachers and improve their teaching efficacy (Bascia & Rottmann, 2011).Access to adequate ICT resources is especially crucial in today's digital era, where the incorporation of technology in teaching is increasingly important (Goktas et al., 2013). Borman and Dowling (2008) found that schools with better facilities and support for teachers have lower attrition rates, indicating the significant role of facilities in teacher job preferences.

4.3 Concluding remarks on the characteristics of teaching

The multifaceted nature of teaching as a profession and an occupation has been the core of this chapter. Distinct perspectives and viewpoints have been employed, predominantly from seminal work of Ingersoll and Perda (2008) and Hendrikx (2019) who shed their lights on the complex dynamics that teachers face in their profession. The multifaceted nature of the teacher profession has been the starting of an exploration to uncover the relevant characteristics, as seen in the figure below, of the teaching job to analyse from a bottom-up perspective.



Figure 14. Relevant aspects of teaching as profession and occupation

In addition to the substantive points described in this chapter, two more things stand out upon studying the literature. First, the boxed nature of literature. Most study's focus on either sociological, pedagogical, or economical aspects of the teaching job. Which is logical for an in-depth analysis of teachers' behaviour but less useful when trying to get an integral understanding of the teachers' preferences across all aspects of the job. In-depth research on various facets of the teaching profession, such as the service to others aspect, do differentiate for types of teachers, but this is often in terms of work experience or other 'black and white' differences between teachers. For example, the study regarding 'service to others' where is concluded that teachers who enter the profession with idealistic motives are often the ones who leave prematurely (Miech & Elder Jr., 1996). This presents a narrowness in the literature; whereby different types of teachers are compared based on one aspect of the profession. And as stated before, in most cases based on their years of experience or other basic features, not their intrinsic preferences within the job.
Second, approaches focused on multiple aspects of the teaching job, often go without considering the existence of different types of teachers with varying preferences. There has been a substantial amount of research offering comprehensive approaches towards understanding the teaching profession (Allen, 2005; Sims, 2018), often ranking aspects that 'the teacher' finds most important. A recent study by the Dutch Labour Platform for primary education does exactly this in their study on the 'What drives the mobile teacher' (ArbeidsmarktplatformPO, 2020).

However, there remains a lack of profound understanding regarding teacher types and their specific preferences because the outcomes of this study are a ranked list with on top 'content of the job'. Further, a broad range of factors such as teacher autonomy, school denomination, teacher idealism,

work content, and leadership (school principal, school board) have been identified as key determinants for teachers choosing or leaving a job (ArbeidsmarktplatformPO, 2020). These aspects indicate the multidimensionality of the teaching profession and wide array of 'important' aspects. This highlights the importance of understanding the interplay among these factors to better comprehend why teachers make certain career choices.

This analysis on literature regarding the aspects of the teaching profession shows the literature gap. The goal of reframing our understanding of teaching from a singular aspect perspective to a pluralistic viewpoint is formulated. The teaching profession should not only be understood as a sum-up of all important aspects, but as a profession and occupation where those aspects have a field of interplay and can vary among different individuals. Those individuals are potentially motivated by differing but sometimes similar combinations. Rather than understanding teachers through single aspects or isolated preferences, we need to shift towards a 3D understanding that recognizes combinations of various preferences and aspects.

The Q-methodology provides the opportunity to execute this quest with its explorative nature and ability to analyse qualitative information in a quantitative manner, suitable to inform policy (Brown, 1980). Therefore, it could potentially also provide valuable insights into this multifaceted understanding of teaching in the education field containing its complex interplay of actors. By considering the demands of teachers, we might achieve a more nuanced view of teachers' professional satisfaction and career decisions (Admiraal, 2021).

The upcoming chapter will seek to delve into these combinations of aspects and preferences among teachers, moving towards a deeper, richer understanding of the different preferences existing within the teaching profession. By using the Q-methodology, we hope to gain a more comprehensive grasp of what motivates the palette of different teachers and what factors contribute to their decision to remain in or leave the profession. The aim is not to replace the existing literature, but to add another layer from the perspective of teachers to understand the complex puzzle of targeting the teacher shortage in the Netherlands.

Part 2: Empirical analysis of teacher perspectives

5. Exploring perspectives of teachers through Q-methodology

This chapter endeavors to elucidate different profiles of primary school teachers, grounded in identified professional characteristics. The derived insights will be utilized to assess policies aimed at tackling the teacher shortage in the Netherlands. Moreover, these insights will suggest areas for stakeholders to reassess their roles and responsibilities, tailoring strategies to meet the needs of specific teacher profiles.
The goal is to comprehend the preferences of various teacher types more thoroughly, beyond the surface level of job determinants considered most critical. The aim is to explore what teachers deem significant when selecting a job and how this varies among different primary school teachers. Significant questions we seek to address are: Are there considerable differences between teacher types? Can insights into teacher types contribute to more effective policymaking at both centralized and decentralized levels? To answer these questions and explore diverse perspectives, the Q-methodology will be employed.

5.1 The Q-methodology

Q-methodology, as introduced by Brown (1980) is a research methodology that integrates qualitative and quantitative approaches to study subjective opinions and attitudes. It entails a unique ranking technique, allowing individuals to rank their opinions on specific topics using a series of statements. This technique identifies patterns and similarities in attitudes towards a particular subject (Brown, 1992; Brown, 1980).
Q-methodology is frequently used in fields such as social sciences, psychology, and market research to understand people's perspectives on a myriad of topics like healthcare, education, politics, and consumer preferences (Goldman, 1999). It proves useful when investigating complex issues involving a wide range of opinions and perspectives (Ramlo, 2016). Additionally, Q-methodology is an effective tool for understanding the beliefs and values that drive individual behavior or decision-making, providing valuable insights for policy decisions and interventions (Ockwell, 2008). Compared to other qualitative methods, Q-methodology offers a more comprehensive comparison of subjective perspectives (Donner, 2001).

5.1.1 Choice of Q-methodology

Q-methodology is suited to this research for multiple reasons. Firstly, it provides a systematic way to explore the diverse and subjective perspectives of primary school teachers regarding their profession. It goes beyond conventional survey methods by not just gathering opinions, but also establishing connections between these opinions, revealing unique teacher profiles. Secondly, it offers an empirical foundation for the research, coupling both qualitative and quantitative data, which is ideal given the multi-faceted nature of the teacher shortage issue in the Netherlands. Thirdly, it aligns well with the three-part research design, serving as a bridge between the multi-actor setting and the policy evaluation parts.

5.1.2 Use of Q-methodology

In this research, Q-methodology will be applied in Part 2, the empirical analysis of teacher perspectives. The methodology will be used to uncover different profiles of primary school teachers based on their preferences. By sorting and ranking a series of statements about their profession, the teachers will reveal not just individual preferences but shared traits among various profiles. The data will be collected and analyzed to identify commonalities and differences among these profiles. This process will provide an in-depth understanding of teachers' preferences and what drives their career decisions, leading to insights for the evaluation and improvement of policies targeting primary school

teachers in Part 3 of the research. This use of Q-methodology for policy analysis is also described by Durning (1999).

5.1.3 Steps of the Q-methodology

In the following paragraphs, the steps taken in the preparation and execution of the Q-methodology are outlined as a research approach for this thesis.

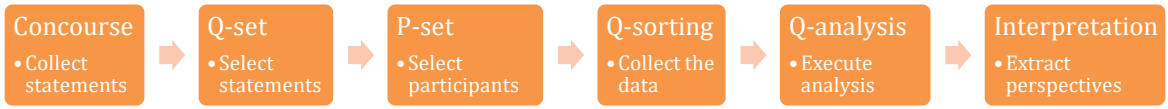


Figure 15. Flowchart of the steps within the Q-methodology

I. Defining the concourse – Statement collection

The initial step in Q-methodology involves gathering a broad range of inputs within the research scope. These inputs will consist of general professional characteristics refined by traits specific to the teaching profession. Sources include literature review and interviews with three professionals in the field. Further two interviews with employees of CAOP were conducted to verify the scope of the input. For the interview guidelines used, please refer to Appendix D.

II. Defining the Q-set – Statement selection

As the concourse usually includes more statements than can be accommodated within the questionnaire sorting process, strategic selection is crucial (Webler, Danielson & Tuler, 2009). The selected group of statements form the Q-set. In selecting statements from the concourse, clear, concise, and unambiguous statements that are easily comprehensible were prioritized. In the process, unclear, negatively formulated, and compound statements were discarded, as they might lead to misunderstandings when interpreting the results. When multiple statements targeted similar aspects, they were compered and tested with trial participants, selecting the best version, or merging them into a single statement representing that characteristic.
Following this process, the initial concourse was condensed to a concept Q-set of approximately 40 statements. After testing these statements with 6 respondents both using the offline interviews and online test versions of the questionnaire, the statements were further refined based on their feedback. The finalised Q-set consisted of 21 statements to lower the burden for participation in the online Q-study. This final Q-set of statements included in the questionnaire is provided in Table 5 below. The original Dutch version can be found in Appendix A.

Table 5. List of statements in the Q-set (translated from Dutch)

#	**Statements** I think this is important in my job…	**Category**
1	Living near school	Occupation - Location
2	A permanent contract	Occupation - type of contract
3	Working part time	Occupation - type of contract
4	Attention to work pressure	Occupation - Supervisor
5	A good salary	Profession - Relatively high compensation
6	Choose your own teaching methods	Profession - Authority over decision making
7	Determine how I teach	Profession - Authority over decision making
8	Few administrative tasks	Profession - Authority over decision making
9	Thinking along with school policy	Profession - Professional development
10	Well-kept facilities (school building, IT)	Occupation - Location

11	Being able to move on to other positions (school leader, IB'er)	Profession - Professional development
12	Being able to grow within my position (specialise)	Profession - Professional development/ Specialisation
13	School leader with a clear vision (educational, pedagogical)	Occupation - Supervisor
14	School leader who manages the team effectively	Occupation - Supervisor
15	School leader who is trustworthy	Occupation - Supervisor
16	A close-knit team	Occupation - Colleagues
17	Inspiring colleagues	Profession - Professional development
18	Help underprivileged children	Profession - Service to others
19	Being much needed (teacher shortage)	Profession - Service to others
20	Helping students with special needs (special (primary) education)	Profession - Service to others
21	Small classes	Occupation - facilities

III. Defining the P-set – Participant selection.

Participants, primary school teachers in this case, were reached through various channels such as snowball sampling on social media, email recontacting of workshop participants, and promotion through online education and job platforms as 'Didactief online' and vacancy website 'Meesterbaan'. The exact promotion texts used to gather participants are presented in Appendix B and C.

IV. Q-sorting – Collecting the data.

After being selected, the participants were asked to complete the q-methodology questionnaire online. For the setup of the online questionnaire, software developed by Banasick (2022) was used. The data collection, participation in the online questionnaire happens through the following steps. Visualisations for all steps can be found in Appendix A.

- **STEP 0:** The participants enter a welcome screen and receive basic instructions and information regarding their participation in the research activity.
- **STEP 1:** The participants are asked to sort the 21 statements of the Q set into disagree, neutral and agree pile.
- **STEP 2:** The participants are asked to place the statements onto the forced distribution grid. For the Q-sort of this research, a Q-grid was designed, see Figure 16, allowing for two statements to be placed in the outer columns on each side.
- **STEP 3:** Respondents were asked to elaborate on their decision for the four statements placed in the outer most columns.
- **STEP 4:** Participants were asked to answer some follow-up survey questions, mostly for demographic purposes used in the analysis for interpretation of the results.

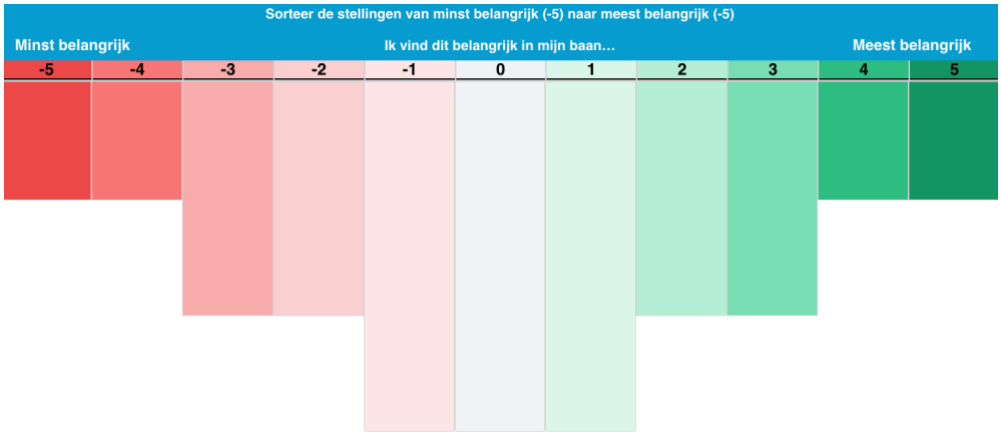


Figure 16. Q-sorting grid for the 21 statements in the Q-set

V. Q-analysis – Analysing the data.

In the Q-analysis phase, the data gathered through the Q-sorting process is subjected to specific statistical analysis. For a full overview of the output data please refer to Appendix G. The Q-analysis was executed with the help of KADE analysing software (Banasick, 2019). This application helped produced the following output data. First based in the input of the Q-sorts as presented in Figure 34, a correlation matrix is made. What follows is a factor analysis.

Correlation matrix

First, each completed Q-sort represents a variable in a correlation matrix, expressing the relationship between different teacher responses. This matrix is then subjected to factor analysis, a statistical method that uncovers underlying factors based on the patterns of correlation among the Q-sorts.

Factor extraction - Unrotated Factor Matrix

First factor extraction is executed. To determine the number of factors to extract, as a first step, the initial factors are extracted. There are two methodologies to do so, by a Centroid Factor Analysis or by a Principal Component Analysis. Watts & Stenner (2012) prefer the centroid factor analysis since it is not about finding the mathematically optimal solution but the most insightful one. Using Centroid Factor Analysis, seven factors are extracted using the 'magical number' of seven factors as described by Brown (1980). The factor extraction groups participants with similar Q-sorts, and thus viewpoints, by loading them onto the same factor.

Eigenvalues

Eigenvalues are a common criterion used in factor analysis. An eigenvalue represents the amount of variance accounted for by a factor. A common rule of thumb is using the Kaiser-Guttman criterion and retain factors with an eigenvalue greater than 1 (Watts & Stenner, 2012), as these factors account for more variance than a single variable (or Q-sort, in this case). We can see in Table 6 that the eigenvalue of factor one is significantly higher than that of the others. Taking the benchmark of one, we would keep all seven factors. However, we don't want teacher profiles represented by only one Q-sort and therefore less factors will be chosen.

Table 6. Eigenvalues and explained variance.

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Eigenvalues	7.836	4.4855	3.0645	2.5816	1.7072	1.7415	1.4349
% explained variance	26	15	10	9	6	6	5
cumulative % explained variance	26	41	51	60	66	72	77

Stable factors
In order to see which factors load significantly onto the different factors a calculation was performed. A factor is considered stable if two or more defining Q-sorts load significantly on the factor, called a defining sort. A significant factor loading at the 0.05 level can be calculated using the following equation: 1.96*(1÷ √number of items in the Q-set). In this case 1.96*(1÷ √21) = 0.428. Now looking at Table 8, the factors can be tested to this threshold. This leads to Factors 1,2 and 3 passing as stable factors.

The Scree Test
The Scree Test involves plotting the eigenvalues and identifying where the 'elbow' or break in the plot occurs. Factors above this break (where the eigenvalues are larger) are typically retained (Cattell, 1966). Based on the Scree test we would retain three or five factors, depending on how steep the break in the slope is judged.

Humphrey's rule
According to Brown (1980), 'a factor is significant if the cross-product of its two highest loadings exceed twice the standard error', ignoring the sign of the factor. This leads to the following calculations: 1÷ √number of items in the Q-set = 1÷ √21 = 0.218. The threshold is thus 2* 0.218 = 0.436. Following Humphrey's rule, factors 1 and 2 are significant. However, if we uphold the less strict criterium of surpassing the standard error (and not the doubled standard error) then factors 3, 5 and 6 could also be eligible for analysis.

Explained Variance
For the factor analysis the goal is to account for an as high percentage of explained variance as possible. With a high explained variance we can understand the most relationships within the set of Q-sorts as possible (Watts & Stenner, 2012). Most Q-methodology researchers suggest retaining factors that together account for a at least 35-40% of the total variance (Kline, 2014). From Table 6 can be seen that Factors 1,2 and 3 together account for an explained variance of 51%, well above the recommended minimum stated by Watts and Stenner (2012) and Kline (2014).

Factor rotation – Varimax rotation
Based on all the analyses above it is chosen to continue with the first three factors, factor 1,2 and 3 for the next part of the analysis. After this chosen number of factors, the factor rotation can be applied to maximize the difference between each of the factors. This does not alter the results, but changes the observation position in order to optimize the loading of each Q-sort (Watts & Stenner, 2012). Loads can range between 1 and -1, 1 meaning perfect agreement with the Factor and -1 being perfect disagreement (Donner, 2001).
After the varimax rotation is applied, from the 30 participants, 27 teachers only load significant on a single factor. Teacher 26 loaded most significant on Factor 1 (0.584) but also significant on Factor 2 (0.519). Teacher 30 loaded predominantly on Factor 3 (0.619), but also on Factor 2 (0.495). Teacher 4 loaded just below significant on Factor 2 (0.404) but was included in the analysis due to the slight difference with the calculated threshold of 0.428 as calculated during the stable factor loading. Table 8 (in Appendix H) shows an overview of the factor loadings after applying Varimax rotation.

Factor characteristics
From the characteristics of the Factors, it can be observed that the number of defining variables is quite even amongst the Factors. Factor 2 has the largest number, also considering that one of both Factors 1 and 3 also loaded on factor 2. The reliability coefficient determents whether a factor is reliable, with a threshold at 0.80 (Brown, 1980), all three factors pass this test. The Z-score determines how precise the statements can be analysed in terms of factor scores, with a lower Z-score being more precise (Brown, 1980).

Correlations between factors

To see if the different factors are representing different factors (and thus viewpoints), we observe the correlation between each factor. From table 11 we can see the correlations between factors. Factors 1 and 3 do have a score of 0.41 but this is just not significant to establish a significant correlation given the threshold of 0.436. If a significant load occurs Brown (1980) suggests observing the factors as alternative manifestations of the same factor. For Factors 1 and 3 this should be considered when evaluating the perspectives, though the load is not significant. Factors 2 and 3 have the least in common (0.18), followed by Factors 1 and 2 (0.26).

The factors extracted through this analysis each represent a distinct teacher profile, each reflecting a unique combination of attitudes and preferences towards aspects of the teaching profession. To be able to interpret each profile, the distinguishing statements are examined. Attention is given to those that receive significantly different rankings across the profiles. Consensus statements, which are ranked similarly across all profiles, are also analysed to identify shared preferences or attitudes. Each profile is then carefully described and interpreted, using both the distinguishing and consensus statements, to describe a comprehensive image of the differing attitudes and preferences among the teacher population. This in-depth analysis provides valuable insights into the underlying dimensions of teachers' job choices and informs the development of targeted policies and strategies. The interpretations of profiles and their respective perspectives are described in section 5.2, interpretation of dominant perspectives. Appendix H contains the detailed calculations made for this analysis containing all corresponding figures and tables, including tables enlisting the consensus and distinguishing statements.

5.1.4. Implications and limitations of Q-methodology in this research

While Q-methodology offers a robust approach to studying subjective perspectives, it also comes with implications and limitations in the context of this research that should be acknowledged. One of the primary implications is the richness and depth of data it provides, allowing us to uncover nuanced teacher profiles that might be missed with more traditional research methods. This allows for a more targeted approach in policy development and intervention strategies, potentially leading to more effective solutions to the teacher shortage problem in the Netherlands.
However, limitations exist. The first limitation relates to the participant sample, the P-set. Given that the Q-methodology uses a smaller, purposively selected sample, the findings may not be generalizable to all primary school teachers in the Netherlands. It instead provides in-depth insight into the selected group's subjective views. Another limitation is the subjectivity in interpreting the factor analysis results. Despite the statistical rigor in identifying the factors, or teacher profiles, there is subjectivity involved in interpreting these profiles, which may lead to different conclusions depending on the interpreter. Lastly, Q-methodology is dependent on the statement set, the Q-set. The quality of the insights derived heavily relies on the comprehensiveness and relevance of the statements used in the Q-sort. Though careful selection and of statements has been executed, and a pilot was run with sample teachers, any omission or bias in these statements or their interpretations by participants could influence the results and their interpretation.
Despite these limitations, Q-methodology provides a valuable tool for this research, offering insights into the complex array of perspectives among primary school teachers that can significantly inform policy design and implementation.

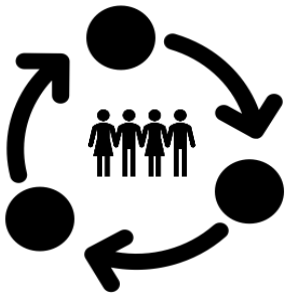
5.2 Results - Interpretation of dominant perspectives

The 30 teachers that completed the Q-methodology survey were analysed and distinguished into three different profiles. This section will describe the outcomes of the Q-analysis, interpretating the profiles based on consensus and contention elements as well as distinctive shared perspectives by

each of the profiles (Donner, 2001). In Appendix H, an elaborate description of choices made to establish the profiles can be found. The following shared perspectives of teachers were identified:

- Profile A - The Duty-focussed Teacher
- Profile B - The Classroom focussed Teacher
- Profile C - The Career focussed Teacher

5.2.1. Profile A - The Service-focussed Teacher



The Service-Focused Teacher exhibits a distinct preference towards service-oriented dimensions of teaching, illustrated by their highest positive alignment with the aspiration to assist underprivileged children (Statement 18, 5). This demographic displays a strong inclination towards attributes related to leadership and community within their workplace. Notably, a trustworthy school leader (Statement 15, 4) and attention to work pressure (Statement 4, 3) emerge as significant priorities for this group. Also, a clear educational and pedagogical vision articulated by the school leader (Statement 13, 3) is deemed of great value, signifying the need for direction and guidance. Furthermore, this profile reflects an appreciation for community-oriented features such as a close-knit team (Statement 16, 2) and the effective management of the team by the school leader (Statement 14, 2). The presence of inspiring colleagues (Statement 17, 1) and assisting students with special needs (Statement 20, 1) also find modest positive resonance with this group.
At the neutral level, administrative tasks (Statement 8, 0) and the freedom to determine how they teach (Statement 7, 0) are not significant drivers, and even a good salary (Statement 5, 0) does not hold much influence over this profile. The size of classes (Statement 21, -1) and opportunities for specialization within their role (Statement 12, -1) are also less of a concern, as is the freedom to choose their own teaching methods (Statement 6, -1).
Negatively, they express a disinterest in the material aspects of their position such as well-kept facilities (Statement 10, -2), the opportunity to transition into leadership roles (Statement 11, -2), and a permanent contract (Statement 2, -3). Surprisingly, the notion of being highly needed due to teacher shortage (Statement 19, -3) is also of little importance to them.
The most negative reactions pertain to part-time employment (Statement 3, -4), with the lowest value attached to living near school (Statement 1, -5), suggesting that geographical proximity is the least influential factor for this group. This lack of concern for proximity might be interpreted as an indicator of their commitment and willingness to commute for a role that aligns with their service-oriented value system.
Given these preferences, Service-Focused Teachers are likely to be attracted to positions that provide the opportunity to make a significant social impact, particularly in challenging settings where they can assist underprivileged children. Institutions seeking to attract and retain these teachers may do well to highlight their commitment to ethical leadership and supportive team dynamics. School leaders that clearly articulate their vision and manage teams effectively are also likely to be particularly appealing to teachers in this group.
On the other hand, traditional job incentives such as geographical proximity, permanent contracts, and opportunities for advancement may be less effective for this demographic. As such, attracting and retaining these teachers may require a more nuanced approach that centers around social impact, supportive work environments, and ethical leadership.

5.2.2. Profile B - The Classroom focussed Teacher



The Classroom Focused Teacher demonstrates a predominant concern for maintaining the integrity of their classroom environment and teaching practices. Their highest preference is towards having a school leader who is trustworthy (15), which they accorded a value of 5, suggesting that this factor is regarded as fundamentally essential. Equally important to this profile is the freedom to determine their own teaching methodologies (7), which is given a value of 4. This underscores a desire for autonomy in pedagogical approaches.
Work pressure is also a significant factor, with a value of 3, indicating an acute awareness of work-related stressors and an interest in mitigating them (4). This professional profile shows a positive affinity towards being part of a close-knit team (16) and appreciates the value of a good salary (5), each given a value of 2.
The presence of small classes (21) is modestly valued with a score of 1, denoting a favorable view on smaller student-to-teacher ratios. In contrast, this profile does not place significant importance on having the ability to move on to other positions, such as becoming a school leader or an IB'er (11), with this statement scoring the lowest value of -5, reflecting a lack of interest in upward mobility within the educational institution.
The Classroom Focused Teacher, therefore, appears to be driven primarily by concerns related to pedagogical autonomy, trust in leadership, and mitigation of work pressure, while showing limited interest in geographical proximity to the school or the prospect of professional progression. Considering job preferences and attraction, the Classroom Focused Teacher would be more likely to respond to job offers that guarantee a degree of autonomy in their teaching, have a trustworthy leadership, and promote a collegial and supportive team environment. Policies aimed at attracting this type of teacher should ensure these conditions. Additionally, professional development opportunities that emphasize classroom management and innovative teaching methodologies, rather than leadership roles, may be more appealing for this group. Their retention might be better ensured by recognizing their need for autonomy and providing a supportive, trust-based leadership.

5.2.3. Profile C - The Career focussed Teacher



The Career Focussed Teacher reflects an individual who prioritizes personal growth and leadership within the educational environment. This person values and seeks input in educational policies, as evidenced by the high Q Sort Value of 5 associated with thinking along with school policy (Statement 9). This interest in policy engagement is complemented by the emphasis on a school leader who effectively manages the team (Statement 14, Q Sort Value 4).
Furthermore, these teachers display a clear interest in career progression within the educational setting, with emphasis placed on the opportunity to advance to different positions, such as becoming a school leader or IB'er (Statement 11, Q Sort Value 3). This preference aligns well with their inclination towards autonomy in their teaching methods (Statement 7, Q Sort Value 3).
Additionally, they value the presence of a school leader with a clear educational and pedagogical vision (Statement 13, Q Sort Value 2) and a trustworthy school leader (Statement 15, Q Sort Value 2). These teachers also express the desire for growth within their current role (Statement 12, Q Sort Value 1), underlining their career-oriented mindset. They equally recognize the significance of a competitive salary (Statement 5, Q Sort Value 1) and the importance of a close-knit team (Statement 16, Q Sort Value 1).

On the opposite end, the proximity of school (Statement 1, Q Sort Value -5) holds the least significance for these teachers. Similarly, the Career Focussed Teachers appear less concerned with the administrative tasks (Statement 8, Q Sort Value -3), helping students with special needs (Statement 20, Q Sort Value -3), and dealing with small class sizes (Statement 21, Q Sort Value -2). These teachers do not heavily rely on being in high demand due to teacher shortages (Statement 19, Q Sort Value -4). This stance might suggest an awareness and acceptance of the competitive nature of advancing in the educational field.
The Career Focussed Teacher profile, therefore, represents an individual committed to personal development, leadership, and policy engagement within the school environment. This profile provides a snapshot of individuals who thrive in dynamic, challenging educational settings, with a focus on career advancement and effective leadership. Potential implications for job preferences for these teachers include schools that provide clear pathways for career advancement and foster an environment of policy engagement. To attract and retain these teachers, schools should emphasize the potential for growth, both in their current roles and in higher-level positions. They may also appreciate opportunities to contribute to policy and decision-making, further integrating them into the school's leadership and management.

5.2.4 Differences and similarities between the teacher profiles

The three profiles extracted from the Q methodology study encapsulate a range of priorities, preferences, and expectations that vary significantly across the profiles. Each profile represents a distinct lens through which teaching and professional satisfaction are perceived, indicating the complex and multifaceted nature of teachers' attitudes and motivations.
Service-Focused Teachers (Profile A) and Classroom Focused Teachers (Profile B) share a strong emphasis on trust in school leadership (Statement 15), which is also acknowledged, though to a lesser extent, by Career Focused Teachers (Profile C). However, the two profiles diverge markedly in their priorities. Profile A teachers place great importance on assisting underprivileged children (Statement 18), whereas Profile B teachers prize the freedom to determine their teaching methods (Statement 7).
The Service-Focused Teacher and the Career-Focused Teacher display stark differences, especially concerning career progression and policy involvement. Profile A shows a lack of interest in leadership roles (Statement 11), contrasting sharply with the Career-Focused Teacher who attaches high value to the opportunity to move on to leadership positions (Statement 11). Similarly, Service-Focused Teachers do not emphasize policy involvement (Statement 9), in contrast to Career-Focused Teachers, who rate this as their highest priority.
The Classroom Focused Teacher and the Career Focused Teacher share some common ground regarding the importance of a close-knit team (Statement 16) and a good salary (Statement 5). However, Profile B teachers show a lack of interest in career progression (Statement 11), contrasting with the Career-Focused Teacher, who value this highly.

Furthermore, all three profiles attach minimal importance to the geographical proximity of the school (Statement 1), suggesting that all groups of teachers are willing to commute for roles that align with their respective values. The difference in perceptions towards small classes (Statement 21) between Profile B, who show some interest, and Profiles A and C, who show less concern, reflects divergent expectations of the teaching environment.

In terms of similarities across the three profiles, within the explained variance there is a unanimous appreciation for a school leader who is trustworthy (Statement 15). This is complemented by the shared interest across profiles in a school leader who manages the team effectively (Statement 14). These statements suggest that regardless of their primary focus, all teachers value certain aspects of leadership and team dynamics in their workplace.

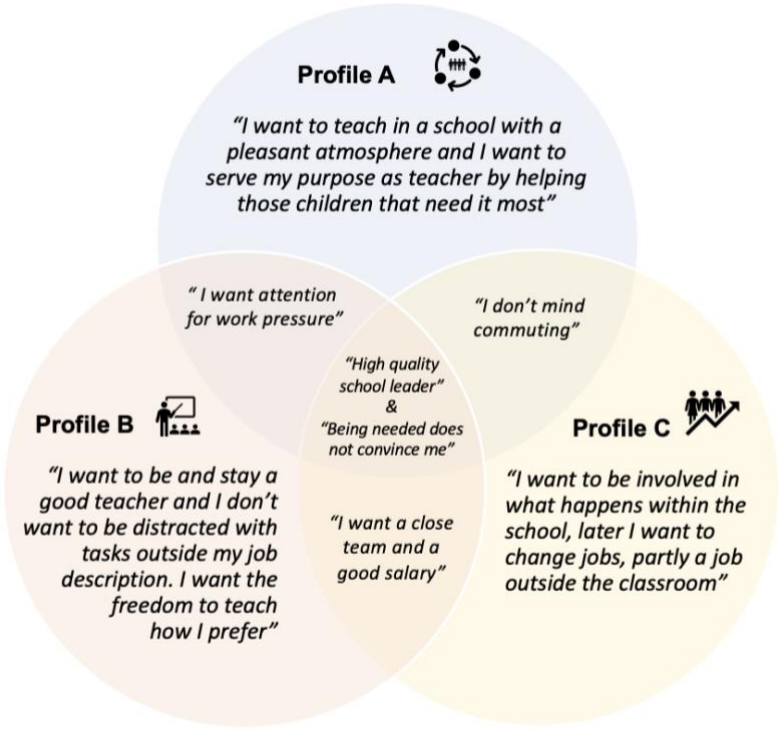


Figure 17. Similarities and differences across the three teacher profiles

These three profiles, the Service-Focused, Classroom Focused, and Career Focused Teachers, confirm and highlight the diversity of professional values and aspirations within the teaching profession. Understanding these profiles can provide valuable insights for education stakeholders, aiding in policy development, recruitment strategies, and the creation of supportive, tailored work environments. This differentiation acknowledges the multifaceted nature of the teaching profession and the unique factors contributing to teacher satisfaction. Exploration of potential implication for existing and future policies will be discussed in Chapter 6.

5.3 Concluding remarks

This chapter, focusing on the execution of an empirical analysis of teacher perspectives applying the Q-methodology, provides the foundation for understanding the varying needs and motivations of primary school teachers. The identification of three distinct profiles — the Service-Focused Teacher, the Classroom Focused Teacher, and the Career Focused Teacher — reveals a spectrum of teachers' professional values, each highlighting unique priorities and perspectives.

We see that Service-Focused Teachers are attracted to roles that resonate with their service-oriented value system, placing importance on ethical leadership, supportive team dynamics, and making a significant social impact. In contrast, the Classroom Focused Teachers prioritize pedagogical autonomy, a collegial work environment, and trust-based leadership. Career Focused Teachers represent those driven by personal development, effective leadership, and policy engagement within the school environment.

Beyond these differences, we also find shared commonalities across profiles, such as the importance placed on trustworthy leadership and effective team management, suggesting that there are universally valued components within the teaching profession.

These findings invite the opportunity to explore policy interventions that can cater to these different needs and values. While a one-size-fits-all approach may be ineffective even for these three profiles,

understanding these different perspectives can help in crafting nuanced and inclusive policies that speak to the diverse priorities within the profession. This lays the groundwork for the following chapter, where we will delve deeper into the potential implications of these findings for policy development, exploring policy interventions that can effectively cater to the specific needs and values of each teacher profile.

Recognizing these unique teacher profiles can help to attract and retain high-quality teachers, thus, improving the overall quality of education. This is crucial as the satisfaction and retention of teachers are not just important to the education system but also to the general societal development of the Netherlands. The next chapter, therefore, will focus on exploring specific policies, using these profiles as the basis for discussions, with an aim to create tailored strategies that can meet the diverse needs and aspirations within the teaching profession.

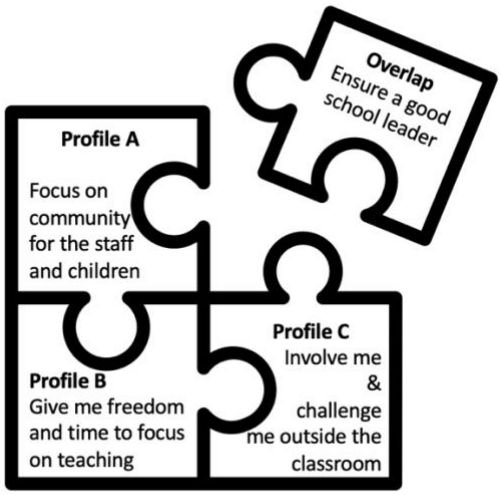


Figure 18. Visualisation of possible windows of opportunities for targeted policies based on teacher profiles

Part 3: Informing Policies Targeting Primary School Teachers

6. Exploring policy interventions

As the educational landscape evolves, so too do the complexities and demands of the teaching profession. Teachers are pivotal contributors to the quality of education and, consequently, to the life outcomes of the students they serve. It is thus imperative that we seek to understand and address the varied needs, preferences, and motivations of primary school teachers. The prior chapters have explored these nuances in detail, revealing three distinctive teacher profiles in the primary education sector: Service-Focused Teachers, Classroom-Focused Teachers, and Career-Focused Teachers. Each profile embodies a unique combination of values and priorities that has implications for job satisfaction, retention, and, ultimately, teaching quality. This chapter aims to leverage these insights to inform policies that cater to the distinct needs of these teacher profiles, fostering an environment where every teacher can thrive.

6.1 Overview

The policy context is a crucial factor shaping the conditions of primary school teachers. It includes educational standards, teacher training and professional development, classroom sizes, teacher compensation, and teacher rights and responsibilities among others. Policy decisions can significantly influence teachers' professional experiences and job satisfaction, impacting their ability to provide quality education.

The current policy context as shaped in Chapter 3 reveals several key challenges. There is a lack of trust in the sector, a lot of short-term thinking and short-term subsidies imposed. Responsibilities for actions are dispersed over many different actors, leaving little power and room for influence for each individual actor. This creates a need to cooperate with a lot of parties to achieve progress.

These challenges in the sector lead to teachers often being overworked and under-resourced. There is also a disparity in access to professional development opportunities, limiting some teachers' ability to improve their practice and progress in their careers. Furthermore, policies seem to overlook the diverse needs and preferences of different teacher profiles, offering one-size-fits-all solutions that may not adequately address the nuances uncovered in this study.

Whilst navigating these complexities, it is essential to keep in mind that policies should not only aim to resolve the current issues but also anticipate future challenges. This includes the impact of advancements on teaching methodologies, changing student demographics, and the evolving societal expectations of the teaching profession.

With these considerations in mind, this chapter sets out to propose a policy framework that is both responsive to the current challenges and forward-looking. The framework will be guided by the principles of equity, teacher empowerment, and job satisfaction. The policy suggestions following this framework will be rooted in the insights gained from the profiling of primary school teachers.

In the following sections, we will further discuss the policy framework, explore potential policy interventions, and examine how these proposals could play out in the multi-actor setting of the primary education sector.

6.2. The Policy Framework

In a pursuit to inform policies targeting primary school teachers, we are proposing a policy framework that directly addresses the challenges identified in this research. The framework is based on principles of public policy (Kingdon & Stano, 1984; Rawls, 2020) and educational management (Banks, 2008; Ryan & Deci, 2000) and educational innovation (Krijgsman et al., 2022). The framework contains a teacher-centric design, considers the specific needs and demands of the teacher profiles, and aims for a more effective, and targeted approach in addressing the teacher shortage. It underpins several key principles and employs strategic mechanisms to ensure expected outcomes.

Principles Underpinning the Framework

Three broad principles guide this policy framework: equity, inclusivity, and teacher empowerment. Equity ensures that all teachers, regardless of their focus or aspirations, have equal access to opportunities for growth and development (Banks, 2008). This principle also calls for fair remuneration and workload distribution, recognizing the value and effort teachers invest in their roles. Inclusivity aims to address the unique needs and preferences of different teacher profiles (Banks, 2008). It urges policy makers to go beyond one-size-fits-all solutions and instead, consider the diverse motivations and satisfaction drivers among teachers. Teacher empowerment, the third principle, represents the sense of autonomy and decision-making power among teachers (Banks, 2008). This principle recognizes teachers as professionals with valuable expertise and encourages policies that allow teachers to influence their work environment and teaching methods.

Mechanisms

The policy framework leverages three key mechanisms: funding, legislation, and institutional support (Kingdon & Stano, 1984; Rawls, 2020). Funding or financing is essential for implementing policies, such as those aimed at reducing work pressure, improving salaries, or enhancing professional development opportunities. As such, strategic allocation of resources is necessary to achieve the framework's objectives. Legislation can ensure that policies have the force of law behind them. This includes laws that safeguard teachers' rights, establish fair workload standards, and protect teachers from unfair practices. Institutional support refers to the commitment and action of educational institutions, such as school administrations and teachers' associations. This includes the promotion of a supportive work environment, the implementation of fair evaluation systems, and the facilitation of teachers' involvement in decision-making processes.

Expected Outcomes

The short-term expectations of the framework include increased job satisfaction among teachers, decreased teacher turnover rates, and improved teacher performance as a result of a more supportive and understanding work environment (Ryan & Deci, 2000). We also anticipate an increase in the number of teachers choosing the profession as the job becomes more attractive and satisfying. In the long term, the policy framework aims to transform the primary education sector into a more inclusive, equitable, and empowering field for teachers. This will ultimately improve the quality of education and with that, the learning outcomes of children.

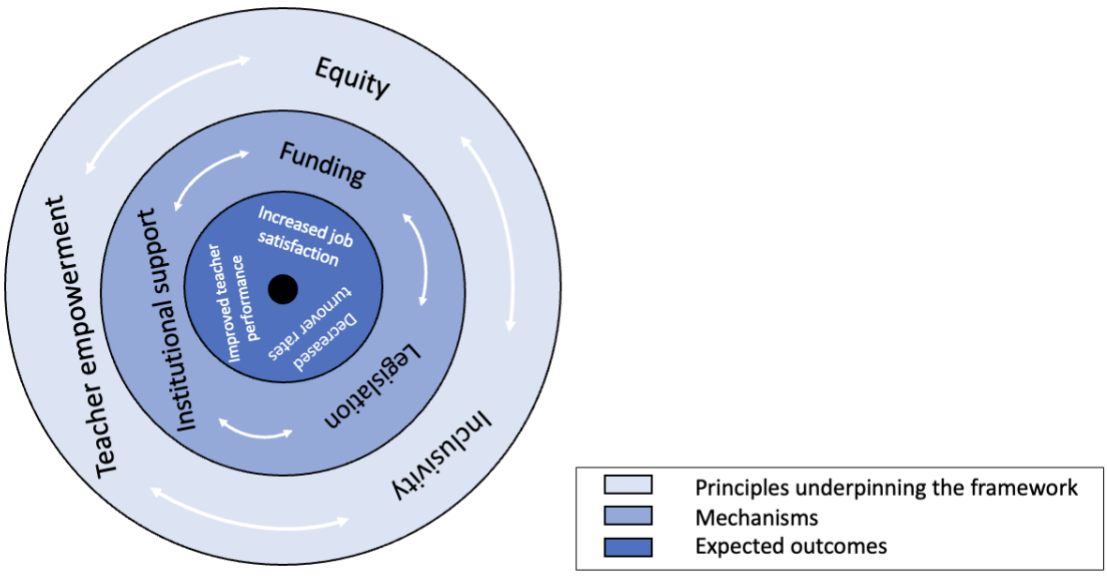


Figure 19. The policy framework targeting teachers.

6.3 Mapping the Profiles to areas of policy interventions

Informing policy interventions requires a thorough understanding of the complex interplay between various factors and actors in the primary education sector. It involves anticipating potential resistance, unintended consequences, and implementation challenges, and building in mitigation strategies to address these. The policies must also be flexible enough to accommodate the evolving needs of the teachers and the wider educational landscape.

The core goal here is to align the nuanced characteristics and needs of each teacher profile with specific policy interventions, tailoring policy actions to the unique requirements and aspirations of each group.

6.3.1. Service-Focused Teachers

Considering their service-oriented approach and emphasis on leadership and community, policies may revolve around developing robust support structures for working with underprivileged students and promoting ethical, transparent leadership within schools. Classroom-Focused Teachers Similarly, discuss the policy interventions that could appeal to Classroom-Focused Teachers. The policies for this group could focus on several aspects:

- **Service-Oriented Support:** Recognize and reward their commitment to service. Policies could establish support structures, such as mentorship programs and specialized training, for working with underprivileged students and communities. This can boost their capacity to serve and allow them to make more significant impacts.
- **Leadership Opportunities:** This group of teachers typically gravitate towards leadership roles, so policies could be developed to offer clear paths to such positions. Additionally, leadership training can be provided to equip them with the necessary skills.
- **Community Engagement:** Service-focused teachers value community interaction. Therefore, involving these teachers in programs of partnerships between schools and communities and can strengthen their sense of purpose.

6.3.2 Classroom-Focused Teachers

Classroom-Focused Teachers, who value pedagogical autonomy and stress mitigation, may benefit from policy interventions that encourage independent teaching methodologies and prioritize healthy, balanced work environments. The aim is to craft policies that respect and encourage their autonomy, while simultaneously offering support where required. The policies catering to this group could focus on:

- **Pedagogical Autonomy:** Policies that respect and encourage the independence of these teachers in their instructional approaches are critical. These could include flexible curriculum guidelines, support for innovative teaching methods, and spaces for creativity in lesson planning and delivery.
- **Work-Life Balance:** Policies could also seek to improve work-life balance, focusing on reasonable work hours, reduction of non-teaching duties, and stress management programs.
- **Peer Support and Collaboration:** Classroom-focused teachers often benefit from the exchange of best practices and peer support. Policies could facilitate the creation of professional learning communities within schools.

6.3.3. Career-Focused Teachers

Policy interventions for Career-Focused Teachers might revolve around creating clear pathways for career advancement and fostering an environment of policy engagement. Considering their focus on personal growth and leadership, policies should be developed to facilitate their career progression and enhance their involvement in decision-making processes. The policies for this group could focus on:

- **Career Advancement:** Clear pathways for career advancement, including leadership roles, should be defined. Policies could set transparent criteria for promotion and rewards for further education or additional certifications.
- **Professional Development:** Offering a variety of professional development opportunities, such as training, workshops, and conferences, is essential. These should be tailored to help these teachers enhance their skills, knowledge, and teaching effectiveness.
- **Policy Engagement:** Encourage their involvement in policy-making and decision-making processes at the school and system level. This inclusion can empower them and improve the relevance and efficacy of educational policies.

6.4 Informing targeted policies

Using the proposed lines of policy interventions for each teacher profile in section 6.3, we turn back to the actor analysis of the sector as described in Chapter 3. The questions posed in its concluding section 3.4, based on the challenges within the primary education sector, serve as a starting point to explore the opportunity for targeted policies. These targeted policies are suggested for the applicable teacher profile(s) in relation to the question at hand.

6.4.1. Policies targeting scattered responsibilities within the sector

Due to the intertwined and scattered influences and responsibilities within this actor network as described in chapter 3. The following question was posed: *How can we assign specific responsibilities related to the teaching profession to specific actors?*

One example of a scattered responsibility within the sector is that of the career development opportunities for a teacher. Currently this responsibility is scattered, oftentimes leaving the teacher dependent on what the teachers' school offers (or does not). Especially career-focussed teachers could benefit from a more institutionalised career-development path set up by the sector as a whole so that they are less dependent on the opportunities within an individual school. Given the need for national organisation, the Ministry of Education would be the actor to be taking charge of policies implementing clear career development opportunities.

Another challenge is that it is unclear who is responsibility for deciding how a teacher spends their time. Teachers obviously spend time teaching, but they also spend a lot of hours doing administration, communicating with parents, reviewing students work. Oftentimes society and/or politicians put pressure on 'the teacher' to spend time on a various assortment of topics and activities inside the classroom. In principle, the only one having a say in how a teacher spends their time is the school boards. The school board is responsible for setting the amount of time that is reserved for teaching and preparing for classes, further other tasks get divided for the whole academic year and this leads to an 'on paper reality' of the division in time spend by the teacher. Especially for the Classroom-focussed Teacher this leads to frustration given their wish for pedagogical autonomy and their stress on the work-life balance. Given the personal need for this type of teacher it would be suggested to have school leaders in charge of how teachers spend their time. School leaders should be facilitated by the vision of the school board to enable teachers to spend their time in a pleasant and efficient manner, suiting their own preferences and the school's needs.

6.4.2 Policies targeting the application of regional subsidies

The varied application and implementation of short-term subsidies raises concerns about regional differences and the effectiveness of these subsidies. *How can we identify reasons to plead for a more unified application of central subsidies or is a varied application of these subsidies more suitable to stimulate initiatives?*

As could be read in Chapter 3, subsidies given out to combat the largest shortages within the G5 are spend in very different ways. Collaborations across regions are formed across the country but vary widely in size and intensity of collaboration. Some areas also lack these collaborative initiatives completely. One school alone cannot be held responsible for the non-existence of a collaborative network in its region, which supports Asscher's point of creating a more central top-down geographical organisation of the application of regional subsidies (Asscher, 2022). This raises the question if a more centralised approach in dividing regions and subsidies would be more effective and what the potential threats are of this approach.
Thinking in terms of the Service-Focussed teacher, the act of service and 'being an addition to society' aspect of teaching is what motives this teacher. The personal relation with a specific school or student population is important to this teacher as well as the collaborative of the team striving for their students' specific needs. These are oftentimes the teachers willing to teach at schools in disadvantaged neighbourhoods and thus a teacher profile of interest for the larger cities containing these neighbourhoods. This type of teacher has the potential for taking the lead in initiatives that can be very beneficial for the school and surrounding society. Having the ability to facilitate these initiatives with the appropriate subsidies is essential to benefit from the potential of this teacher. Therefore, it is important that even if policies targeting the application of subsidies will be organised more centrally, that room for tailored use within schools and cities remains possible so that these initiatives can still be facilitated.

6.4.3 Policies targeting the quality control of education and autonomy of teachers

Black-and-white goals as set by national actors in the sector have led to a sense of control and lack of trust and room for personal autonomy within the sector. *How can we maintain room for the autonomy of the teacher as a professional whilst implementing clear goals and expectations by institutions in the primary education sector?*

Trust should be instilled in all layers of the system to give room for professional autonomy, to act with quality as a goal, rather than having to answer to the black-and-white quantitative goals and expectations. For the Classroom-Oriented teacher it is important to get the space and trust to act within the classroom as a professional. A Classroom-Oriented can put all their energy and effort into the classroom when the trust and facilities are there to be able to do so. Further, in a system with trust rather than control there is likely more opportunity for the Career-Focused teacher to engage in school policy. Receiving trust and being able to provide input to the school leader will give space to the Career-Focused teacher to grow into more responsibilities.

To provide the teacher with more trust and room for professional authority we start looking at the national actors who set the quantitative black-and-white goals. The ministry, together with the inspection can strive to create clear goals and expectations that have a more qualitative formulation. It is important that translation of these goals to the next layer in the sector is one with trust. This will then provide school boards with the opportunity to take space for clear educational goals and expectations for school leaders and schools. Because as could be seen from the results of the Q-methodology, it is the school leader who ultimately provides the teacher with the trust to be a satisfied teacher experiencing trust and room for professional authority.

6.4.4 Concluding remarks regarding targeted policies

The final question posed in chapter three was: *Can we impose targeted policies on different types of teachers to attract and retain them more effectively within the profession?* Judging from the paragraphs above, we can assume a significant likelihood for an effective result of targeted policies based on specific teacher profiles. The distinct profiles provide a directive narrative of the

preferences of each profile. Each of these profiles provide the sector with an opportunity to improve policies in their respective area of importance. For the Service-Focused teacher this may lie in the …. Whilst for the Classroom-Focused teacher this focus lies in the time division of a teacher. Lastly, the Career-Focused teacher is helped with targeted policies regarding career development. When tailoring for the specific needs of a certain teacher profile it is likely that the other teacher profiles also benefit from the tailored policies. Even though their importance on an aspect might be less significant, a Classroom-Focused teacher will benefit from clearer defined career development paths just as the Career-Focused teacher will benefit from school leaders taking ownership in deciding on the time spend by a teacher. An observation can be that the Q-methodology provided us with more qualitative bottom-up insides in the needs and preferences of teachers creating targeted but also more refined policies ultimately benefitting the wider teacher population.

7. Conclusion

The teacher shortage has become a buzzword in Dutch media over the past two to three years. Numerous reports state the quantified expected shortages, the need to professionalize schools, improve collaboration amongst players and stimulate teachers to work more FTE in exchange for a higher salary, or receive financial bonusses to work at schools with complex student populations. These policies are almost all targeted at 'the teacher', which in primary education accounts for over 125.000 individuals. Is it realistic to target these people in a similar manner? As Van Vroonhoven (2020) and Asscher (2022) write, the approach to reducing the teacher shortage must become more cohesive. Part of this cohesiveness could be to implement policies targeting specific groups of teachers, with similar job preferences regarding the profession. Hardly any of the existing research and reports analyse the problem from the perspective of teachers themselves. Even less distinguish between teachers according to their job preferences. Therefore, this thesis aims to explore the potential of this literature gap. The following research question was formulated in order to execute this research: *"How can teacher profiles based on job preferences inform targeted policies aimed at reducing the Dutch primary school teacher shortage?"* To answer the main research question, the research was divided into three parts: 1) Analysing the multi-actor setting and the characteristics of the teaching profession, 2) identifying shared perspectives, and 3) design a generic framework. Each part is provided with sub-questions that will together contribute to answering the main research question.

7.1 Part 1: The Multi-Actor Setting & Characteristics of the teaching profession

This part focused on gaining a better understanding of the playing field, the primary education sector in the Netherlands. Aiming to answer sub-question 1: *What are the relevant stakeholders and their respective roles and responsibilities regarding the Dutch teacher shortage?*

The Dutch teacher shortage presents a deeply rooted and complex issue, necessitating the concerted efforts of diverse actors operating across several levels. The multi-actor setting of the Dutch primary education sector comprises key players such as the Ministry of Education, Culture & Science, the education council, regional alliances, and more, each with distinct roles and responsibilities.
Over time, these actors have implemented various initiatives to address the teacher shortage, yet the issue persists, indicating the need for refined and more comprehensive strategies. Challenges arise due to the tangled and distributed responsibilities and influences, demanding a coordinated effort from all stakeholders.
Significant discrepancies are evident in the allocation of subsidies across different regions, leading to uneven implementation and effectiveness of the funds. Coupled with diverse strategies adopted by different cities within the G5, this underlines the need for a structured regional division of labour market regions.
Adding to the complexity, the administrative middle field, with entities like the PO-Raad, unions, Education Inspectorate, and national project organizations, exhibits control focus and rule proliferation. 'Social partners' within this landscape have established an intricate web of regulations which, while formed with good intentions, often constrict professional teachers, eroding their trust and limiting their capacity to operate from their expertise.
In conclusion, the multi-actor setting paints a complex picture of the Dutch primary education sector, replete with diverse actors, intersecting influences, and an intricate web of policies. This is also visualized in the figure below. Addressing the teacher shortage effectively would necessitate understanding the nuanced characteristics and needs of different types of teachers and devising more strategic, targeted policies for each profile.

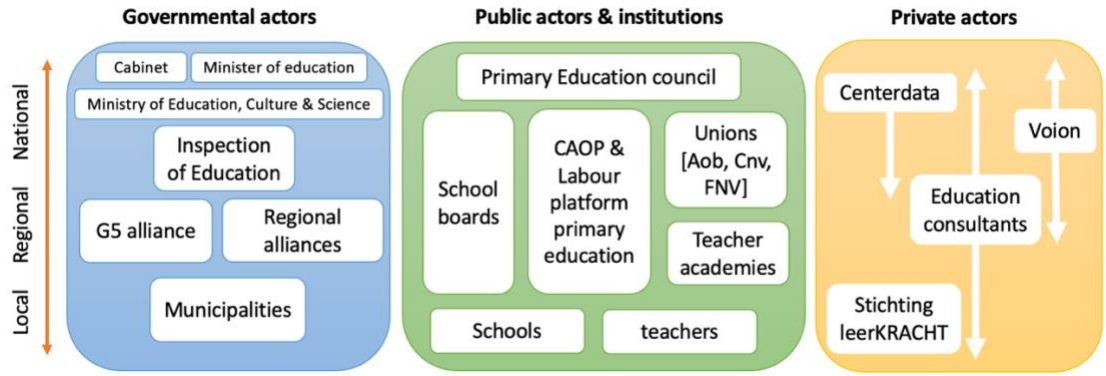


Figure 20. Actors within the primary education context

The second half of part 1 of this research, focussed on determining the characteristics of a profession. This was done whilst aiming to answer sub-question 2: *What are the job characteristics of the teaching profession that influence teachers' job choice?*

The teaching profession's multifaceted nature, including sociological, pedagogical, and economic dimensions, were analysed with a wide array of literature. Chapter 4 has discussed the multifaceted nature of teaching as a profession and an occupation, with a focus on the complex dynamics that teachers face. Predominant perspectives were drawn from the seminal work of Ingersoll and Perda (2008) and Hendrikx (2019), alongside various other sources, to explore relevant characteristics of the teaching job from a comprehensive standpoint. The relevant characteristics of a profession and those of an occupation in order to analyse job preferences of primary school teachers are show in the figure below.

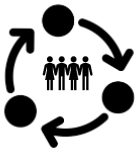


Figure 21. Characteristics of the teaching job

A shift in perspective is proposed to view teaching not just as a sum of its parts, but as an interconnected field where various aspects interact and vary among individuals. The goal is to transition from understanding teachers through isolated preferences or single aspects to a holistic, 3D understanding that recognizes various combinations of preferences and aspects.

7.2 Part 2: Empirical Analysis of Teacher Perspectives

The second part of this research aimed to explore the different teacher profiles based on preferences regarding job characteristics The corresponding question was sub-question 3: *Based on the job characteristics of the teaching profession, what different profiles of primary school teachers can be identified?* This was done using Q-methodology. Teachers were asked to rank 21 statements regarding job aspects from not important to very important. Three profiles of teachers were deduced after execution of the Q-analysis.



Profile A – The Service focussed Teacher

The Service-Focused Teacher profile is characterized by a service-oriented inclination, with significant emphasis placed on assisting underprivileged children, and a high value on leadership and community within their workplace. These teachers appreciate trustworthy school leaders, articulated educational and pedagogical vision, attention to work pressure, and community-oriented features. Material aspects of their position, such as facilities or the opportunity to transition into leadership roles, hold less value for this group. They are motivated by roles that allow them to make a significant social impact, particularly in challenging settings, and are drawn to institutions that showcase ethical leadership and supportive team dynamics.



Profile B - The Classroom focussed Teacher

The Classroom Focused Teacher profile values maintaining the integrity of their classroom environment and pedagogical autonomy. This group shows significant importance for trustworthy school leaders and the freedom to determine their teaching methodologies. They also exhibit a keen awareness of work-related stressors and an interest in mitigating them. This profile appreciates the value of a good salary and small classes but shows little interest in advancing to other positions within the educational institution. To attract and retain these teachers, job offers should guarantee autonomy, trustworthy leadership, and supportive team environments.



Profile C - The Career focussed Teacher

The Career Focused Teacher profile prioritizes personal growth and leadership within the educational environment, showing significant interest in policy engagement and career progression. These teachers value school leaders who effectively manage teams, clear educational and pedagogical vision, autonomy in their teaching methods, and the presence of growth within their current role. They show less concern for geographical proximity to the school or administrative tasks. Schools that provide clear pathways for career advancement, policy engagement, and effective leadership can attract and retain these teachers.

The three profiles display distinct preferences, with Service-Focused Teachers and Classroom Focused Teachers sharing a strong emphasis on trust in school leadership. Yet, they diverge in other priorities like assisting underprivileged children or teaching method autonomy. Differences between Service-Focused Teachers and Career-Focused Teachers are pronounced, particularly around career progression and policy involvement. Classroom Focused Teachers and Career Focused Teachers share some common ground but show differing interests in career progression. All profiles show minimal importance to geographical proximity to the school but appreciate trustworthy school leaders and effective team management to varying degrees, see also the above two figures.

7.3 Part 3: Inform Policies Targeting Primary School Teachers

The third part of this research aimed to inform targeted policies based on the distinct teacher profiles, thereby addressing sub-question 4: *What suggestions for policy evaluations can be made based on the found teacher profiles?*

This research categorized primary school teachers into three distinctive profiles: Service-Focused, Classroom-Focused, and Career-Focused Teachers. These profiles have unique combinations of values, priorities, and needs that impact their job satisfaction and therefore potentially their retention within the profession. A nuanced policy approach that adheres to these diverse needs gives us the possibility to inform policies targeting specific groups of primary school teachers.

First, responding to the intertwined responsibilities outlined in Chapter 3, a challenge pertains to the fragmented approach towards teachers' career development. To mitigate dependency on individual school opportunities, a sector-wide career development path is proposed. This would benefit and enhance career development opportunities for Career-Focused Teachers. Responsibilities for policy implementation lie with the Ministry of Education and other national actors to structure such career development paths.

Second, to ensure effective utilization of regional subsidies, the need for a more central approach in the division of such regions is considered. Such collaborative networks to be structured uniformly, still leave room to acknowledge the differences across regions. While a more centralized approach is suggested, space for tailored initiatives within schools and cities should be retained. This approach aids Service-Focused Teachers in driving initiatives that suit the sense of duty and service oriented approach of this group of teacher, potentially benefitting schools, in disadvantaged neighborhoods, that need it most.

Third, balancing institutional and often quantitative goals with individual teacher autonomy necessitates instilling trust throughout the education system. A shift towards qualitative goals, supported by the ministry and inspection, can be advocated. This empoweres school leaders to make decisions about time allocation, while fostering trust, addresses the needs of Classroom-Focused teachers who have strong preferences in their own teaching methods and styles within the classroom.

7.4 Conclusion: Answering the Main Research Question

The main research question: *"How can teacher profiles based on job preferences inform targeted policies aimed at reducing the Dutch primary school teacher shortage?"* has been explored through three phases of the study. First, the multi-actor analysis of the education sector revealing the major challenges within the sector. Next, the characteristics of the teaching profession influencing job choices. Finally, the three different profiles of primary school teachers.

The multi-actor analysis of the sector revealed the complexities in effective policy making in the recent history, given inability to create transformative policies over the past decades that would eradicate the teacher shortage. It also revealed the complex playing field existing of many actors and shared responsibilities for tasks across the sector. The multi-facetted nature of the teacher professions uncovered by its many characteristics revealed that being a teacher is a job of many traits. Profiling teachers provided a nuanced understanding of these traits and revealed the existing differences among teaching professionals.

The three teacher profiles identified - Service-Focused, Classroom-Focused, and Career-Focused, each have unique needs and motivations. The effectiveness of targeted policies, based on these distinct teacher profiles, holds promise. Tailoring policies to the unique needs of each profile has the potential to yield positive outcomes as described in the section 7.3. Policies designed with the three profiles in mind hold potential to be more successful in attracting and retaining teachers, ultimately contributing to addressing the teacher shortage. Another conclusion is that while the suggested targeted policies in this research are designed for specific profiles, cross-benefits among teacher groups are likely to occur. The insights from the Q-methodology therefore guide not only the development of targeted policies, but also that of refined policies. These refined policies are the

result of a qualitative bottom-up analysis using Q-methodology, ultimately enhancing the broader teaching community.
A final note, before developing policies based on the outcomes of this research, more elaborated validation and verification needs to be done on the individual profiles and their related targeted policy suggestions. The profiles found in this research can however serve as a good starting point when exploring the options to differentiate policies based on different types of teachers, such as the ones described in this research.
In conclusion, this research underscores the importance of a tailored approach to policy interventions in the realm of teacher shortages. By recognizing the intricacies of the sector, acknowledging the diverse facets of the teaching profession, and profiling teachers based on their preferences, this study offers a compass to navigate the challenge of teacher retention and attraction. The findings provide valuable insights for policymakers, educators, and other stakeholders to collectively shape the future of policies in the primary education sector in the Netherlands.

7.5 Discussion and reflection

The journey undertaken in this research has led to a comprehensive understanding of the Dutch primary education sector, teacher job characteristics, and three distinct profiles of primary school teachers. With this in mind, it is important to reflect on the implications of these findings and the potential impact they might have on addressing the pervasive issue of the teacher shortage.

The analysis of the multi-actor setting of the Dutch primary education sector has illuminated the intricate web of responsibilities, influences, and challenges faced by various stakeholders. The sector's history of fragmented policy implementation, coupled with the dispersion of tasks and responsibilities, has underscored the need for a more cohesive approach. As highlighted in Chapter 3, the interplay between different actors often leads to disjointed efforts and a lack of unified strategies. This complexity calls for a concerted effort to streamline policies and interventions. The balance between central responsibilities and local responsibilities, the efficacy of general versus tailored policies, are of constant debate in the education field. Another complexity is the political cycles of four years that impact decision making and directions followed. The need for long-term policy planning is high in a field so large and dispersed as the education sector with the 6000+ primary schools all impacted by national policy changes.
The exploration of teacher job characteristics has revealed that being a teacher encompasses a wide array of dimensions, each with its own significance. This holistic view of the teaching profession provides a foundation for understanding the motivations, priorities, and needs of teachers. The three identified teacher profiles – Service-Focused, Classroom-Focused, and Career-Focused – offer a nuanced lens through which to evaluate policy interventions but are in no regard the only three profiles existing within the education sector. During the process of this thesis, I came up with over fifteen potential profiles, and the formulation of the final three profiles is subject to interpretation and limited to the statements used as input for this Q-methodology study.
Limitations of this research also include the representativeness of respondents and potential biases in the questionnaire statements. Also, it's crucial to note that the suggested policy interventions based on teacher profiles are of an informative nature. Implementing these interventions requires thorough planning, considering potential resistance, unintended consequences, and implementation challenges. Before adhering to these tailored policies, it is important to validate and verify the information gathered and presented in this research. More elaborate research is needed to confirm the conclusions found within this thesis.
A final point of reflection is the limited inclusion of the viewpoint of school leaders. Throughout this study the significant importance of the position of the school leader became apparent and therefore any targeted policy should be in close consideration of effects on the (position of) the school leader. Given the existence of an almost equally large school leader shortage and the trivial position of the

school leader for the teaching job, a conclusion can be that a first step in solving the teacher shortage might be to ensure the quality and quantity of school leaders in the primary education sector. More regarding the potential for inclusion of school leader in this type of research projects can be found in the recommendations for future research section below.

7.6 Recommendations for further research

As this research delved into the complexities of addressing the teacher shortage and aimed to create a bottom-up strategy by profiling teachers in terms of job preferences, it simultaneously paved the way for future research projects that can build upon the insights and foundations established in this thesis. The following recommendations are potential areas for exploration, enhancing the understanding of stakeholders within the education landscape and offering more elaborate targeted approaches for future policy formulation.

Exploring School Leaders' Needs Using Q-Methodology

Expanding the perspective beyond teachers, a natural progression of this research involves delving into the preferences and needs of school leaders within the primary education system. Given their integral role in shaping the teaching environment, comprehending their viewpoints could offer insight in the challenges and opportunities in educational leadership. This recommendation aligns with this study's focus on stakeholders and the findings that exemplify the importance of school leaders across all found teacher profiles.

To undertake this study, a Q-methodology approach akin to the one employed for teachers could be adopted. Engaging school leaders from diverse educational institutions, tailored Q-sort statements would capture nuances relevant to leadership roles, encompassing decision-making autonomy, resource allocation, staff management, and collaborative efforts with teachers. Subsequent Q-analysis could unveil different profiles of school leaders, highlighting varying leadership preferences and requirements. This recommendation augments the current thesis by extending its scope to encompass educational leadership perspectives. By comparing teacher and school leader profiles, the research could uncover areas of convergence or divergence in their needs and priorities. The research results together can give an even more comprehensive overview of the needs and priorities of the two actors who have their feet on the ground in this field.

Exploring the Needs of Primary School Teachers in Disadvantaged Neighbourhoods

Given the pronounced shortage of teachers in disadvantaged neighbourhoods in the large cities of the Netherlands, a valuable research direction involves a dedicated study into the specific needs and preferences of primary school teachers working in these challenging environments. This research would shed light on the unique dynamics at play and inform policies targeted at improving teacher retention and quality in these critical areas.

This research initiative would involve recruiting a sample of primary school teachers from disadvantaged neighbourhoods in the major cities. Q-sort statements could be tailored to capture the intricacies of working conditions, classroom challenges, community engagement, and support mechanisms. Through Q-analysis, distinct teacher profiles based on needs and preferences specific to disadvantaged neighbourhoods would emerge.

Aligned with this study's focus on teacher profiles, this recommendation deepens the exploration by zooming in on a particularly critical subset – teachers in disadvantaged neighbourhoods. By understanding their distinct preferences, challenges, and aspirations, this research would offer targeted insights for policies that can alleviate the teacher shortage crisis in the most affected areas.

Stated Choice Experiments to Refine Suggestions for Policy Implementation

To further refine the policy implications derived from teacher profiles, a valuable area of research potentially lies in employing stated choice experiments. By quantifying the trade-offs and

preferences of teachers within each profile, these experiments can provide a more granular understanding of which policies are most likely to be effective and well-received.
This research approach involves designing choice scenarios where teachers within different profiles make decisions based on various policy options. These scenarios could encompass aspects like workload, professional development opportunities, leadership roles, and compensation packages. By analysing the choices made, researchers can determine the relative importance of different policy components within each teacher profile. Building upon this thesis's emphasis on tailored policies, this recommendation aims to provide empirical validation for policy directions. By quantifying the preferences of different teacher profiles, researchers can identify the policy elements that resonate most strongly. This approach offers a tangible and data-driven framework for refining policies and ensuring they align with the nuanced needs of primary school teachers.

As this study has advanced the understanding of different type of primary school teachers and their implications for policy formulation, the proposed recommendations are designed to built upon this. Encompassing school leaders, delving into the unique needs of teachers in disadvantaged neighbourhoods and suggesting strategies to refine the targeted policies in the education field are a next step to gain a deeper understanding of the needs within the root of the primary education system. By enriching the pool of insights for tailored policy making with the inclusion of a bottom-up perspective future policies can be created with more in depth knowledge of the actors who work inside the schools.

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Appendix

Appendix A – Q-methodology questionnaire

The questionnaire was posted online with help of open-source software posted on GitHub by Shawn Banasick based on the good reviews of previous thesis students (Castanos, 2020).
Here is a link to the GitHub page with a thorough explanation how to setup the Q-methodology questionnaire (Banasick, 2022): https://github.com/shawnbanasick/eq-web-sort. This is link to the final version of the questionnaire: https://scriptie-baanaspecten-leraren.netlify.app/. Beware this link is no longer active since the survey was taken offline after the period of data collection. Below are print screens of each step of the questionnaire.

Step 0. Introduction page of the questionnaire
This page shows the entry and welcome screen when people went to the website https://scriptie-baanaspecten-leraren.netlify.app/ . Most important information was stated whilst trying to keep the message brief.

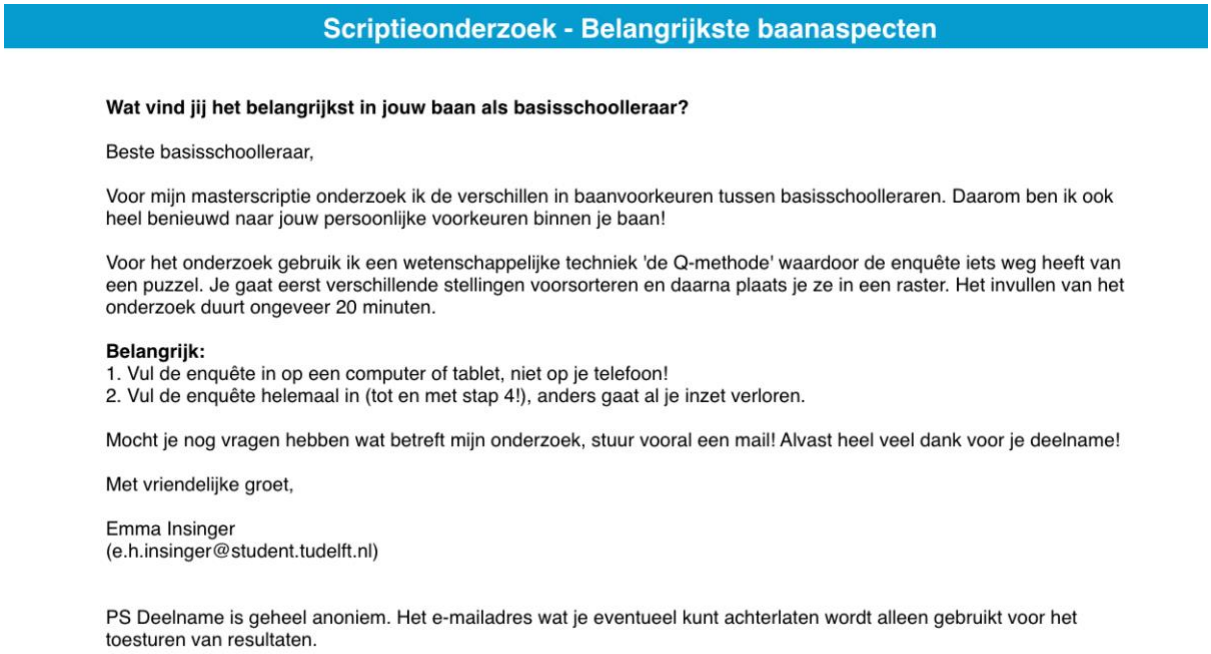


Figure 22 Introduction page of the questionnaire

Step 1. Pre- sorting the statements in three piles



Figure 23 Pre-sorting step of the questionnaire, dividing the statements into three piles

The table below includes the original statements as used in this research and the translated English version used for the analysis and documentation of the interpretation of results.

#	Ik vind dit belangrijk in mijn volgende baan:	Statements - I think this is important in my job...
1	Wonen in de buurt van school	Living near school
2	Een vast contract	A permanent contract
3	Part-time werken	Working part time
4	Aandacht voor werkdruk	Attention to work pressure
5	Een goed salaris	A good salary
6	Eigen lesmethoden kiezen	Choose your own teaching methods
7	Zelf bepalen hoe ik lesgeef	Determine how I teach
8	Weinig administratieve taken	Few administrative tasks
9	Meedenken met schoolbeleid	Thinking along with school policy
10	Verzorgde faciliteiten (schoolgebouw, IT)	Well-kept facilities (school building, IT)
11	Kunnen doorgroeien naar andere functies (schoolleider, IB'er)	Being able to move on to other positions (school leader, IB'er)
12	Kunnen doorgroeien binnen mijn functie (specialiseren)	Being able to grow within my position (specialise)
13	Schoolleider met duidelijke visie (onderwijskundig, pedagogisch)	School leader with a clear vision (educational, pedagogical)
14	Schoolleider die het team effectief aanstuurt	School leader who manages the team effectively
15	Schoolleider die betrouwbaar is	School leader who is trustworthy
16	Een hecht team	A close-knit team
17	Inspirerende collega's	Inspiring colleagues
18	Kansarme kinderen helpen	Help underprivileged children
19	Hard nodig zijn (lerarentekort)	Being much needed (teacher shortage)
20	Leerlingen met speciale behoeften helpen (speciaal (basis)onderwijs)	Helping students with special needs (special (primary) education)
21	Kleine klassen	Small classes

Figure 24 Statements in the Q-set – Orginal Dutch version Dutch and English translation

Step 2. Forced sorting of the statements in the Q-grid

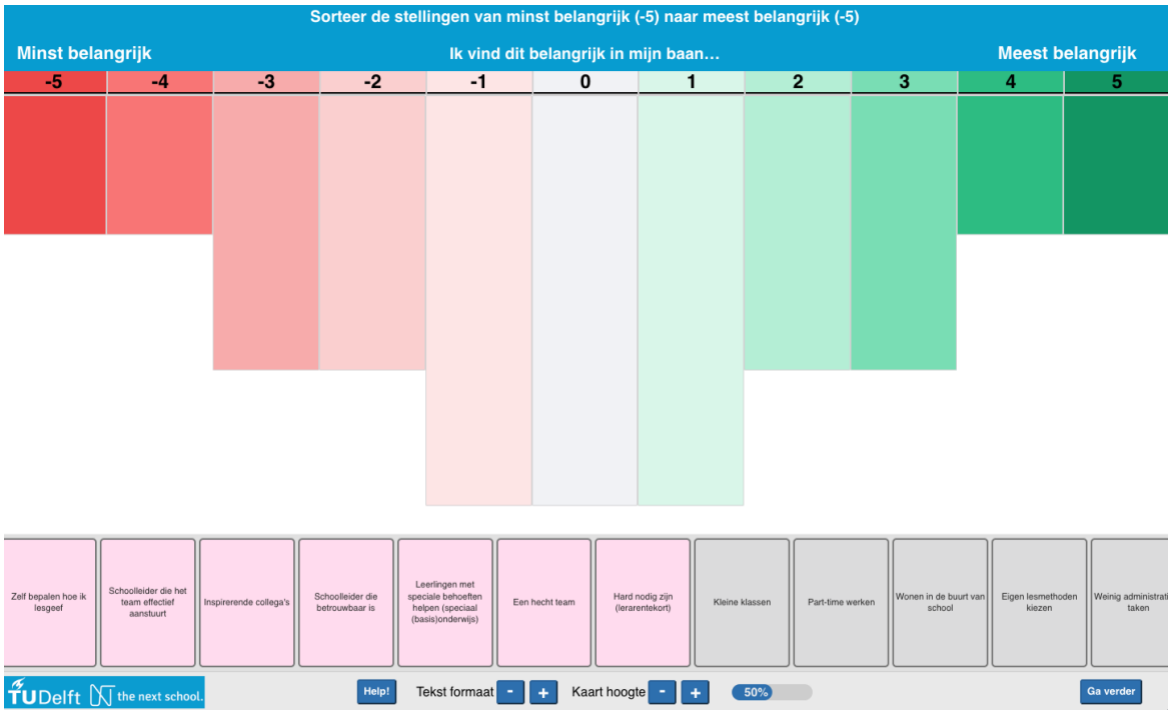


Figure 25. Step 2, Forced sorting of the Q-grid.

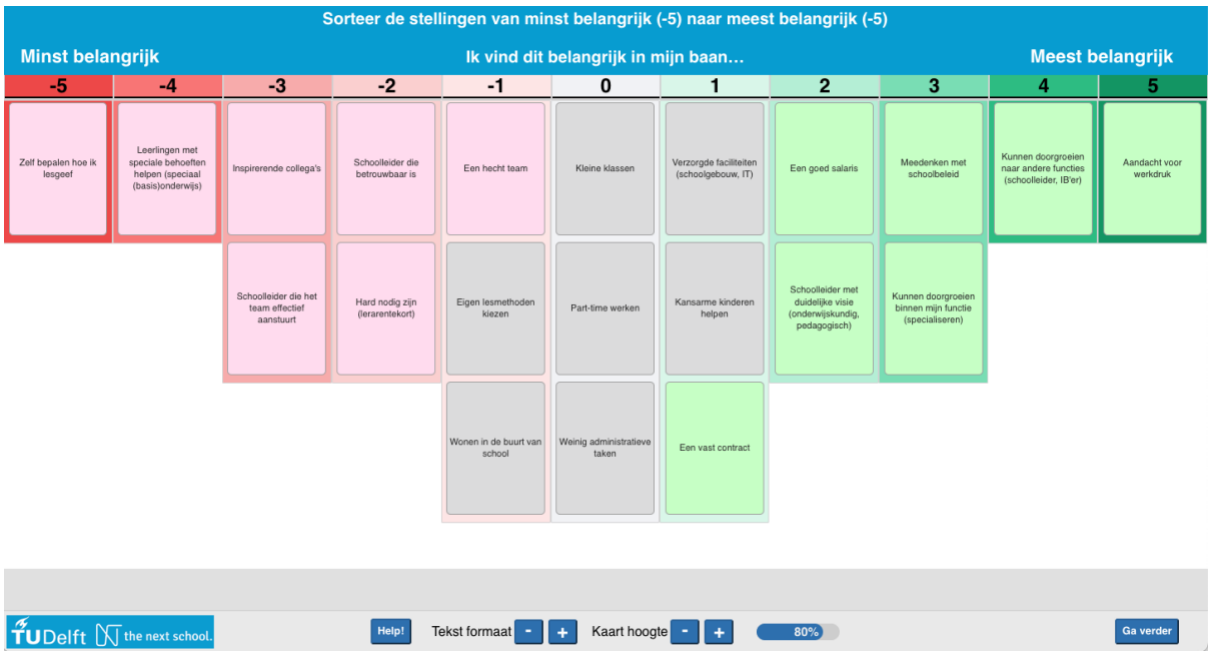


Figure 26. Example of a Q-sort filled out in the online questionnaire at the end of step 2.

Step 3. Commenting on the most outer placed statements

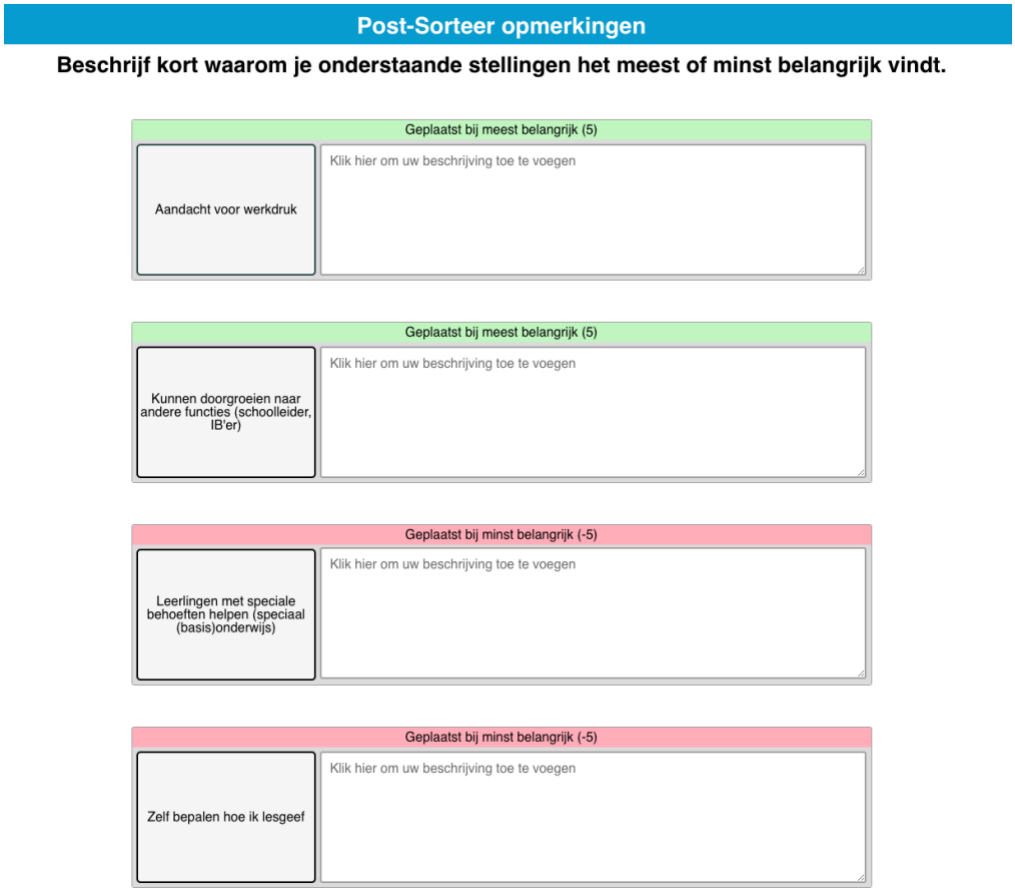


Figure 27. Step 3, obtaining post sorting comments.

Step 4. Gathering background information in the post-sort survey

Below the questions asked as background information in the post sorting questionnaire:

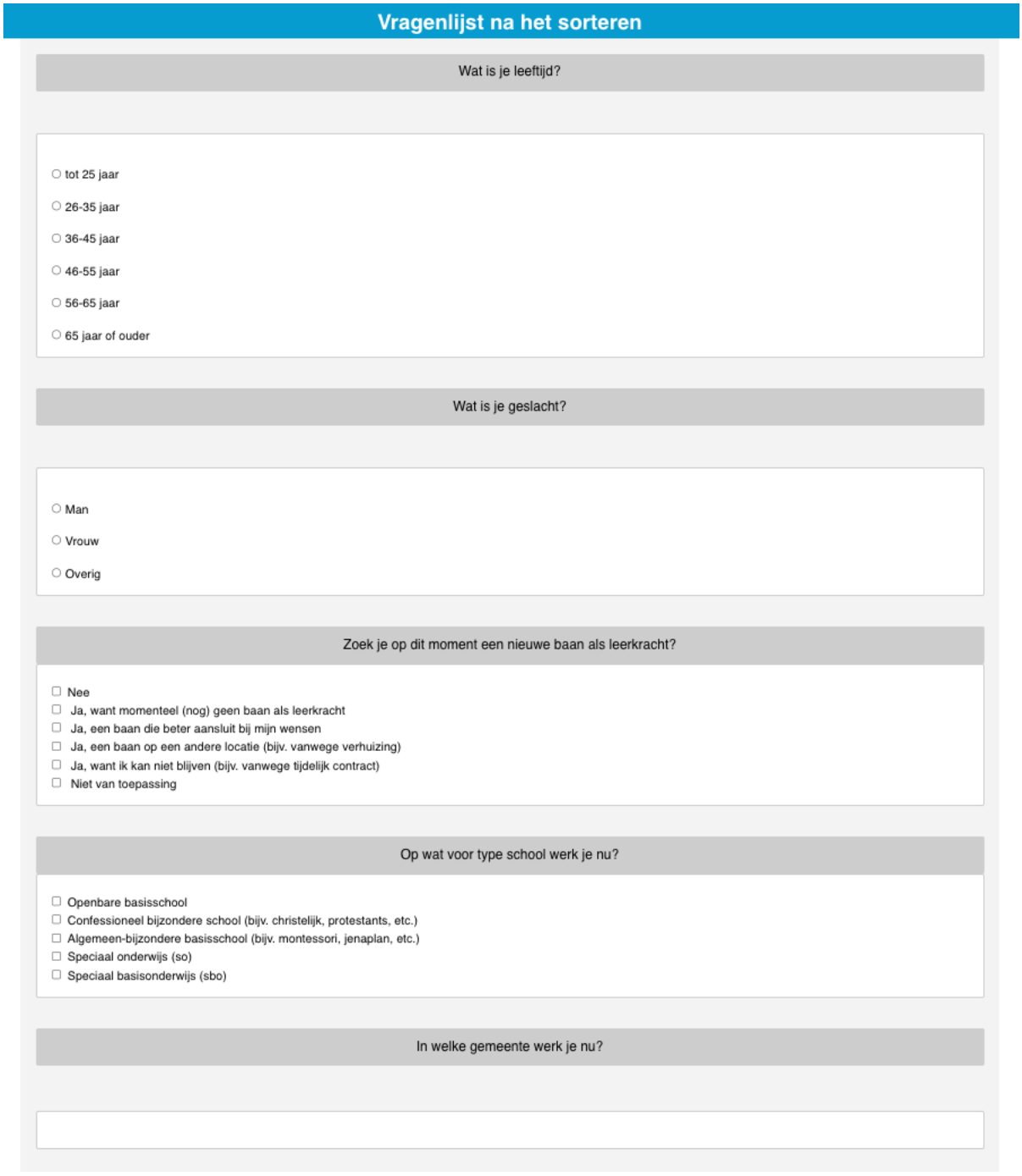


Figure 28. Post sorting questionnaire part 1.

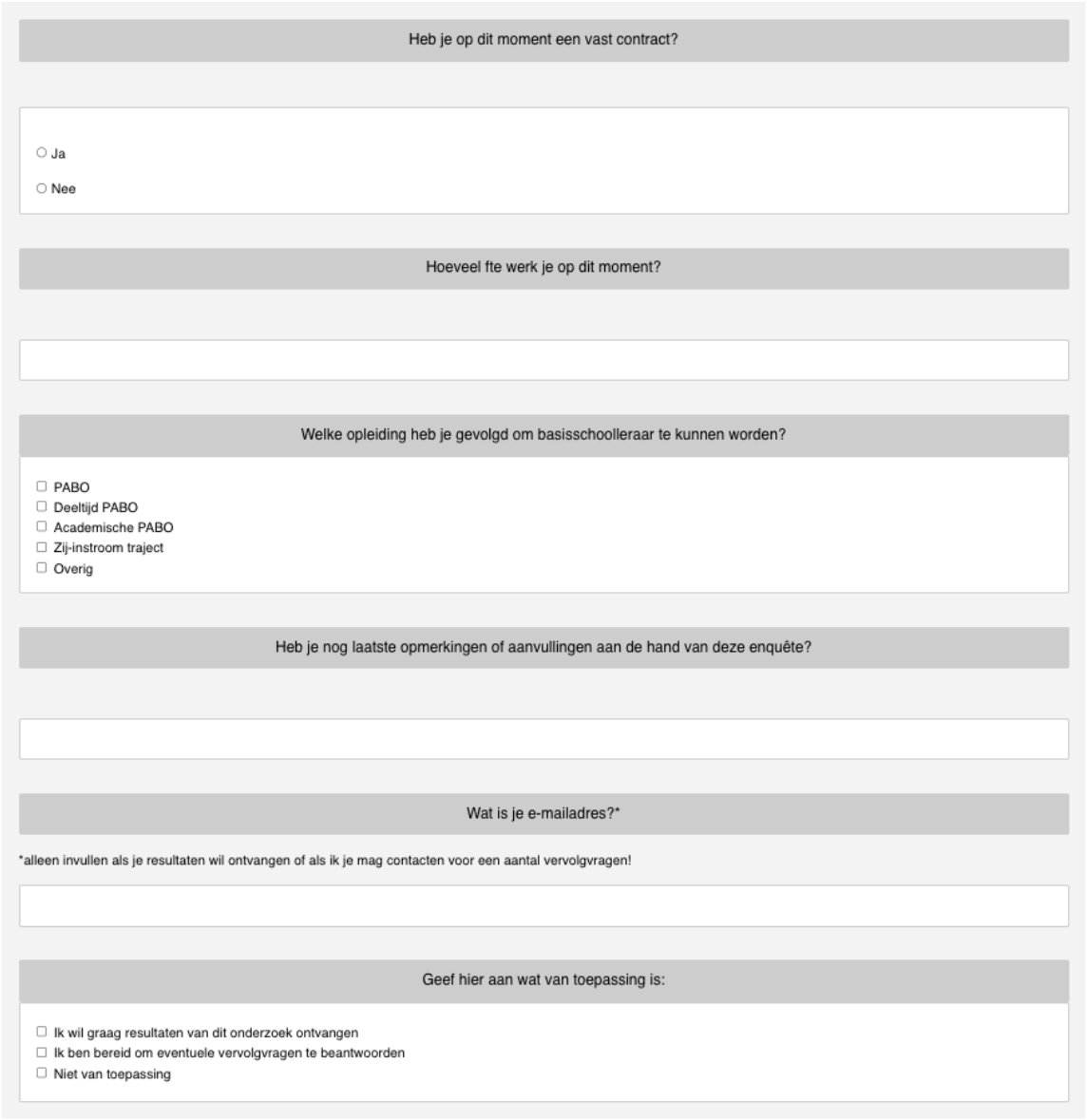


Figure 29. Post sorting questionnaire part 2.

Appendix B – Workshop held at researchED

On march 11th I presented the concept of my research approach and questionnaire on researchED Netherlands. researchED aims to bring research in the education field closer to the work floor of teachers. More information about researchED can be found here: https://researched.eu/over-researched-nederland/

Link to the introduction of the workshop

On this webpage a short introduction and description of the workshop given at researchED 2023 was posted:
https://researched.eu/sessie/waarom-kiest-een-basisschoolleraar-voor-een-bepaalde-school/

Screenshot of the webpage above



Appendix C - Promotion of the Q-methodology survey

Overview of the different methodologies used to gather participants for the questionnaire.

Promotion through Dutch education website: Didactief online



Figure 30 Didactief Online Faccebook post (left) and tweet (right) on their Twitter account (April 25th 2023)

Promotion through Dutch education vacancy website: Meesterbaan.nl

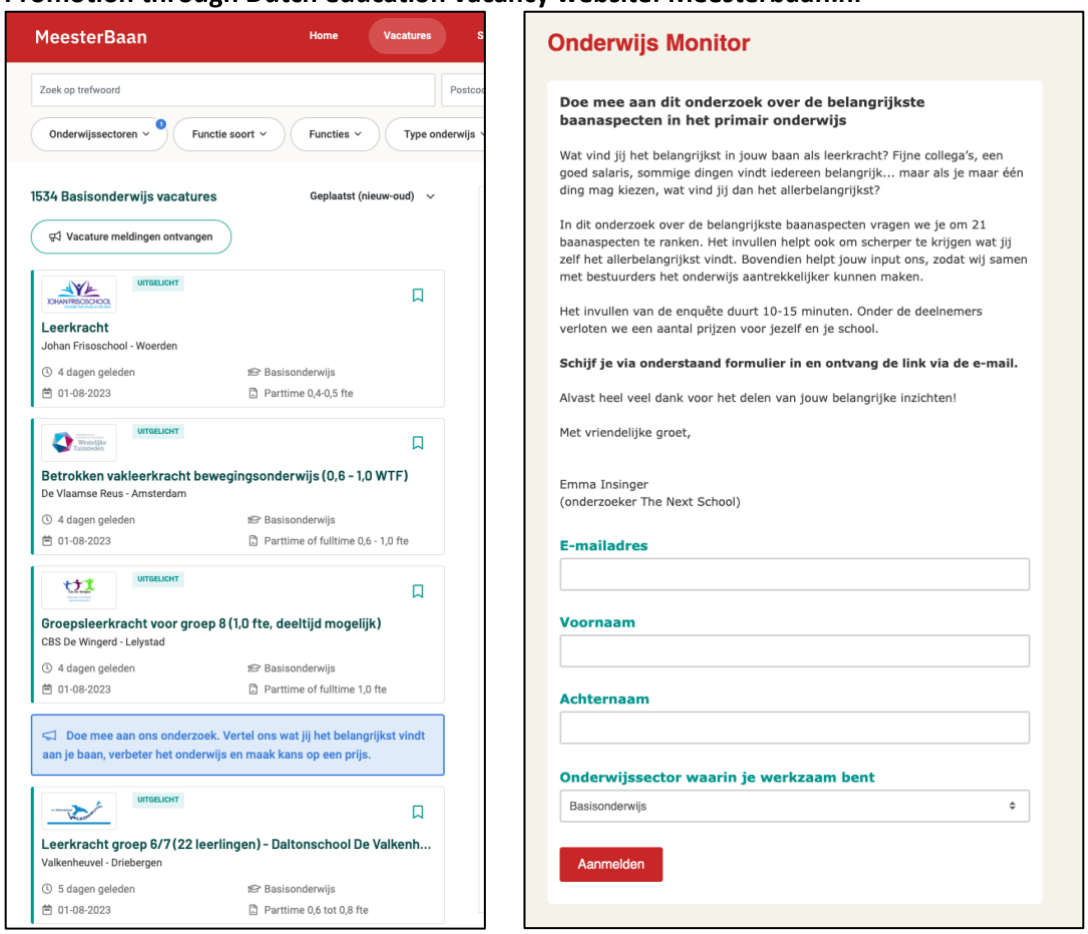


Figure 31 Promotion through Meesterbaan.nl (Vacancy website in the education sector)

Promotion through connections of employees at The Next School

Basisschoolleraar! Wat vind jij nu écht belangrijk?
Hoi! Ik wil graag horen wat jij het allerbelangrijkst vindt aan jouw baan als basisschoolleraar. Door mee te doen help jij mijn onderzoek en het onderwijs vooruit! Vul deze speciale enquête met stellingen in op een PC of tablet via https://scriptie-baanaspecten-leraren.netlify.app (~15 minuten). Mocht je nog vragen hebben, laat het mij vooral weten. Alvast heel veel dank!
Groetjes, Emma Insinger (06-[redacted])

Figure 32 Promotion through connections of employees at The Next School

Promotion through my own connections on Instagram and WhatsApp



Hoi! Voor mijn scriptie zoek ik basisschoolleraren die mij willen vertellen wat ze het belangrijkste vinden in hun baan als leerkracht. De enquête duurt ~20 minuten en kan worden ingevuld op een PC of tablet via https://scriptie-baanaspecten-leraren.netlify.app. Mocht je nog vragen hebben, laat het mij vooral weten. Alvast heel veel dank!
Groetjes, Emma Insinger (06-[redacted])
13:21

Figure 33 Promotion through connections on Instagram and WhatsApp

Appendix D – Interview guidelines semi-structured interviews

Interview guide for the exploratory interviews with primary school teachers to validate the concourse and define the Q-set for the Q-study. (This guide is in Dutch)

Begin - Korte introductie van elkaar + uitleg doelen gesprek
[persoonlijke intro's]
[intro onderzoek + aanleiding interview: we doen onderzoek naar verschillende type leraren en wat zij belangrijk vinden bij het kiezen van een school. Daarbij willen wij natuurlijk zoveel mogelijk input vanuit de leraar zelf. Om te zorgen dat het theoretisch onderzoek wat we doen groed aansluit bij wat leraren in de praktijk vinden en ervaren willen we ook veel leraren spreken. Deze interviews zijn heel belangrijk en bepalen mede wat we precies zullen onderzoeken, dus alvast heel veel dank voor deze belangrijke bijdrage! We gaan je vragen stellen over jouw motivaties maar ook wat je bij mensen in je omgeving ziet. Er is geen goed of fout, we willen graag een zo goed mogelijk beeld hebben van hoe het er 'in het echt' aan toegaat dus noem vooral juist de gekke details die in je opkomen!]

Midden deel I – Vragen over de interviewee

- Waarom wilde je oorspronkelijk leraar worden?
- Wat waren je grootste motivaties?
- Zijn er nog dingen waar je over twijfelde bij je keus voor het leraarschap?
- Hoe heb je je huidige school gekozen?

Verwachtingen vs. realiteit

- wat vind je heel leuk aan je huidige school?
- Wat zijn je grootste redenen om hier te blijven?
- Wat vind je minder leuk/Wat mis je op je huidige school?
- Hoe cruciaal zijn deze dingen voor je, zou je erdoor veranderen van school op termijn?

Afhankelijk van vorige antwoorden formulering aanpassen:

- Wat zou voor jou maken dat je van school zou wisselen?
- Als je nu van school zou wisselen wat vind je dan belangrijke elementen van je nieuwe school
- Waarom?

helpen door de factoren afgaan (locatie, salaris, leerlingpopulatie, type onderwijs, denominatie, type school, schoolleiding, autonomie)

- Welke aspecten zijn negotiable en welke absoluut niet?

helpen door onze factoren afgaan (locatie, salaris, leerlingpopulatie, type onderwijs, denominatie, type school, schoolleiding, autonomie)
Zo specifiek mogelijk krijgen! Enerzijds heel goed de non-negotiables doorvragen, anderzijds bij de negotiables scherp krijgen wat hij/zij nodig heeft om toch voor zo'n school te kiezen!

Midden deel II – Vragen over leraren in de omgeving van de interviewee

- Wat voor type leraren lopen er op jou school rond (als we het hebben over motivatie om leraar te zijn en op jouw school te werken).
- Waarom denk je dat ze dat belangrijk vinden?
- Wat hebben zij nodig om te blijven?
- Wat zou ze overhalen om te vertrekken?

Midden deel III – Vragen over de persona's die wij tot nu toe zien
Laten zien van persona's leraren die bedacht zijn.

- Herken je deze persona's?

- Welke elementen specifiek? Waarom?
- Zijn er persona's die je totaal niet herkend?
- Waarom niet?
- Ontbreken er volgens jou nog persona's die jij wel ziet in je omgeving?
- Wat zijn de eigenschappen van deze persona?

Slot

- Zijn er nog dingen die je kwijt wil die nog helemaal niet aan bod gekomen zijn tot nu toe?
- Zijn er nog mensen in je omgeving die wij zouden moeten spreken over dit onderwerp?

Dankjewel voor je tijd en informatie, super waardevol, als je het leuk vindt houden we je op de hoogte van het verloop van het onderzoek!

Appendix E – Current measures to tackle teacher shortage and their rated effects

In a letter to the parliament in July 2022, an appendix was added with an overview of current policies and their rated effect according to civil servants (OCW, 2022). For this thesis the effect is rated in these four categories (translated from the colour coded judgement in the appendix of the parliament letter).

++	Direct positive effect on addressing shortages
+	Indirect and/or expected positive effect on addressing shortages
-	Effect is moderate and/or potentially promising, but more is needed to achieve a positive effect.
--	Not proven effective

Table 7 Current measures teacher shortage including evaluation of effects

Name (in Dutch)	Description of measure	Description of effect	Effect
Second career teachers **(Zij-instroom in beroep)**	Grant scheme for the training and guidance of professionals transitioning to education (€20,000 per career switcher for 2 years).	Successful measure. Has resulted in a relatively large and sustained increase in teachers.	++
SOOL	Grant scheme for the training of assistants/supporters into teachers (€5,000 per year for a maximum of 4 years).	Scheme has been running since 2019 and has consistently been oversubscribed. Evaluation of the scheme is currently underway.	++
Guiding job seekers **(begeleiding uitkeringsgerechtigden in het PO naar een baan)**	Carried out by the Participation Fund.	Has been highly successful in the past period. Between 2019 and December 2021, 3,242 resumptions of work have been achieved. The majority in education, but also in childcare, healthcare, and other sectors. Project is continued	++
Addressing workload **(aanpak werkdruk)**	Funds are allocated at the school level to determine how workload can be addressed in collaboration with the team. Money is mostly used to release pressure on teachers by hiring extra personnel	Evaluation of the use of workload resources shows that the measure is effective. Besides reducing workload, it has a positive effect on ownership. Can contribute to the long-term attractiveness of the profession. Drawback: Schools (in certain areas) without shortages sometimes hire additional teachers, which increases the	+

		pressure on schools with shortages.	
Investment in salaries PO **(Investeringen salaris po)**	The salary in primary education has been gradually increased to the level of secondary education (this cabinet).	Similar to workload relief, this measure contributes to the structural enhancement of the attractiveness and appreciation of the profession. A study by CPB in 2014 indicated that international literature suggests that higher teacher salaries increase the likelihood of people choosing and remaining in the teaching profession, with a greater impact when the salary difference compared to alternative professions is larger.	+
Regional Approach to Staff Shortages **(Regionale aanpak personeelstekorten (RAP))**	Grant for school boards and educational institutions that collectively address regional (geographically defined) shortages (total of approximately €20 million per year, of which €4 million for the G4 cities).	The scheme started in 2019, and within a relatively short time, a total of 70 regions (primary and secondary education) have been formed. Participation is voluntary. The G5 cities receive funding through the Decentralization Grant. The RAL scheme has been positively evaluated. The evaluation of the current RAP scheme is ongoing. A disadvantage is that it stimulates more collaborations between education and training institutions (including Collaborative Teacher Education Programs). This leads to (undesired) fragmentation.	+
Entry of School Leaders in Primary Education **(Zij-instroom schoolleiders po)**	Starting from the autumn of 2022, the subsidy scheme to encourage the entry of school leaders in primary education (po) will be initiated. The expectation is that the subsidy scheme can contribute to reducing the shortage of school leaders in primary education.	Expected to contribute to reducing the shortage of school leaders in primary education (po).	+
Effective Strategic Personnel Policy	This term refers to initiatives aimed at addressing	Implemented at both the board and regional levels. There are significant differences between	+

(Goed strategisch personeelsbeleid)	absenteeism, promoting increased working hours, providing support for novice teachers, ensuring sustainable employability, encouraging longer working periods, and implementing strategic personnel policies in primary education (po), secondary education (vo), and vocational education (mbo).	boards and regions actively working on these measures. This is considered a promising measure with potential gains, as the education sector previously had a sufficient supply of personnel, resulting in a lower urgency to care for staff. Research indicates that intensified support for novice teachers contributes to reducing dropout rates.	
Experiment on Admission Requirements for Teacher Academy **(Experiment toelatingseisen pabo)**	The requirement to pass the knowledge tests (history, geography, and natural sciences) prior to admission to the primary teacher training program (pabo) will be replaced by the requirement to pass these tests during the first year of the program. This is an experimental measure with a duration of 3 years. The aim of the experiment is to assess whether providing more time to pass the tests contributes to increasing accessibility to the pabo.	An evaluation conducted by the CPB showed a significant decrease in the number of students enrolling in the pabo due to the introduction of these tests. However, this decrease has been partially offset by an increase in the progression rate to the second year, and the numbers have now returned to the level prior to the implementation of the admission requirements. The assumption is that the pabo enrollment could further increase, considering the potential applicants who are deterred by the admission requirements or fail to pass one or more tests at the gate. This will be investigated during the experiment. The effectiveness of this measure depends on the level of awareness among prospective students regarding the new rules. If there is insufficient awareness, the deterrent effect may persist, especially since pabo programs are still allowed to assess knowledge before admission.	+
Labor Market Allowance **(Arbeidsmarkttoelage)**	All staff members in the 15% of schools with the highest disadvantage scores receive an additional allowance on top of their salary. 2-year	An ex-post policy evaluation will be conducted by the CPB, with the first report expected by the end of 2023. Mixed perception among administrators and school leaders regarding the estimated effects on	+

	measure, but intention to make it structural	staff retention and recruitment (survey conducted in early 2022 and roundtable discussions). An area of concern is the limited intention to mention the labor market allowance in the recruitment of new personnel (only a quarter).	
Flexibilization of Teacher Education **(Flexibilisering lerarenopleidingen)**	In 2020, the governance agreement on the flexibilization of teacher education was concluded, which includes agreements on flexibilization and strengthening collaboration between teacher education institutions.	A midterm evaluation will be conducted in late 2022, and a final evaluation in late 2023.	+
Education Helpdesk **(Onderwijsloket)**	The Education Helpdesk was established in 2020 with funding from the Ministry of Education, Culture and Science (OCW) by VH and UNL as the gateway for information, referral, and smooth transfer to the regions for potential teachers/career changers.	Interested individuals can find possible routes and seek advice on training programs, requirements, etc. The Education Helpdesk focuses on career changers. The intention is to continue the Education Helpdesk as outlined in the work agenda. Research is being conducted on the role the Education Helpdesk and regional helpdesks can play in improving accessibility to education for career changers, in relation to the establishment of national coordination. The Education Helpdesk is well-received, with an average of 40,000 website visits per month. Over 200 potential career changers receive advice each month. An evaluation of the Education Helpdesk will be conducted in late 2022 or early 2023.	+
Subsidy Scheme for Second Teacher Education	The subsidy scheme for second teacher education was established in 2020. In 2021, the reimbursement for	The scheme has not been fully utilized in the past two years. There are three explanations for this. 1. The target group for the subsidy scheme is small. Individuals with a first teacher	-

(Subsidieregeling tweede lerarenopleiding)	this subsidy was increased to bring it closer to the actual costs. The scheme runs until October 1, 2025, with an annual budget of €2.5 million.	education and an employer have more advantageous alternatives, such as the teacher grant and the subsidy scheme for career changers. 2. Data from DUO shows that the number of students submitting a follow-up application for the second year is smaller than the number of initial applicants, as some students complete their studies within one year. 3. The awareness of the scheme can be increased, and extra attention is being given to this (e.g., through the DUO website and the Education Helpdesk). No signals have been received by DUO or the Education Helpdesk from interested individuals encountering conditions or obstacles in the scheme.	
Image Campaign "Baan van het leven" (Job of a Lifetime) (Imagocampagne Baan van het leven)	This campaign, mainly conducted through social media, was launched in 2020, one month before the outbreak of the COVID-19 pandemic.	It is difficult to measure the effect of the campaign, and an evaluation is currently underway. Initial indications suggest that the campaign can be more effective by targeting specific groups and linking it to focused recruitment efforts.	-
Covenant "Aan de slag voor de klas" (Get to Work in the Classroom Covenant) (Convenant Aan de slag voor de klas)	A covenant was signed by councils, insurers, and the banking sector to guide people towards a career in education.	In potential, it remains promising, but the matching process to regions and schools was challenging, and the perceived lack of flexibility in education programs resulted in outcomes falling short of expectations. Additionally, there was a lack of good control information. The covenant has ended, and considering the presence of more regional helpdesks and efforts to enhance flexibility in education programs, it could be considered to revive such agreements.	-
Tapping into the Silent Reserve (Aanspreken stille reserve)	The field of education has a relatively large group of individuals with teaching qualifications who are not working in	The potential impact is theoretically high, but in practice, it is expected to be low as people have found employment elsewhere and sometimes left the education sector for specific reasons. Significant differences are	-

	education. Encouraging them to return to the classroom can contribute to addressing teacher shortages.	also observed between governing bodies and regions. Amsterdam conducted a relatively successful flyer campaign in 2019 to identify and reach out to these individuals. Many schools try to tap into the network of parents in order to find hidden reserves for the school. Schools indicate that this is a source (with low barriers). No research has been conducted on the effectiveness of this approach. In 2019 and 2020, an exploration was conducted to determine if we could contact everyone with a teaching qualification. However, due to GDPR regulations, this is not possible.	
Halving of Tuition Fees in the Second Year for Students in Teacher Education Programs (Halvering collegegeld in het tweede jaar voor studenten op de lerarenopleidingen)	The previous government halved tuition fees for students in their first year and also for students in teacher education programs in their second year.	In November 2021, the law on reduced tuition fees was evaluated. The evaluation revealed that this measure did not demonstrably contribute to enrollment in higher education or teacher education programs. As a result of the Van der Molen - Van der Laan motion, the resources from halving tuition fees for the academic year 2024-2025 will be used to expand the supplementary grant and increase the basic grant.	--
Subsidy for Career Returners (Primary Education) **(Subsidie herintreders (po))**	School boards that hired career returners could apply for a subsidy of €2,500 for guidance and refresher courses.	Initially, the program seemed reasonably successful. However, the number of applications declined. The evaluation showed that career returners are also hired and supported without the need for a subsidy.	--

Appendix F – Recommendations by external parties regarding the teacher shortage

Multiple parties have written advisory reports on ways to tackle the teacher shortage within the Netherlands. Below an overview of advice that has been widely discussed within the educational field. From this overview of recommendations, we can get a grasp of the scope of ideas that have been proposed over the past five years.

Council of Education (2018) – Letter teacher shortages
The report "Onderwijsraad (2018), Brief Lerarentekorten" (Education Council (2018), Letter Teacher Shortages), the main strategies to tackle teacher shortages in primary education in the Netherlands from this report can be summarized as following:

- **Develop a clear and cohesive strategy.** The report emphasizes the need for a clear and more cohesive strategy to address the teacher shortage. It highlights that the measures taken so far have been fragmented, and therefore, calls for an integrated and coherent approach.
- **Establish comprehensive coordination and guidance.** The report suggests that the Ministry of Education should play a central role in coordinating and providing clear guidance for the strategy to address teacher shortages. This includes taking the lead in setting priorities, monitoring progress, and ensuring effective implementation of the measures.
- **Strengthen initial teacher education**. The report recommends enhancing initial teacher education programs to attract and train more teachers. This can involve revising the curriculum of teaching academies, improving the quality of training, and promoting innovative teaching methods to better prepare future educators.
- **Improve working conditions and career prospects.** To attract and retain teachers, the report emphasizes the importance of improving working conditions and providing better career prospects. This can include competitive salaries, opportunities for professional development, reduced workload, and enhanced support systems.
- **Enhance recruitment strategies**. The report suggests implementing effective recruitment strategies to attract individuals to the teaching profession. This can involve targeted marketing campaigns, outreach programs to universities, and initiatives to promote teaching as an attractive and rewarding career choice.
- **Foster collaboration and knowledge sharing.** The report highlights the importance of fostering collaboration among educational institutions, schools, and teachers. This can be achieved through networks, platforms, and initiatives that encourage the sharing of best practices, lesson plans, and innovative teaching methods.
- **Invest in research and data collection.** The report recommends investing in research and data collection to better understand the causes and implications of teacher shortages. This can help inform evidence-based policies and targeted interventions.

In short, the report suggests that the Netherlands can address teacher shortages more effectivel, focusing on making the approach cohesive and structured to ensure a sustainable supply of qualified teachers in primary education.

Merel van Vroonhoven (2020) – Strong together for every child
Based on Merel van Vroonhoven's report titled "Samen sterk voor elk kind (2020)" (Together strong for every child), the main arguments to combat the primary school teacher shortage in the Netherlands can be summarized as follows:

- **Coordinated regional approach**. Van Vroonhoven highlights that the current approach to addressing the teacher shortage is fragmented. She advocates for a regional approach under the leadership of a national task force. This approach aims to streamline efforts, promote collaboration, and ensure consistency across different regions.

- **Evidence-based decision making.** The report emphasizes the need for a more "fact-based" approach to combat the teacher shortage. This entails conducting thorough research and data analysis to understand the root causes, assess the effectiveness of interventions, and make informed decisions based on empirical evidence.
- **Targeted focus on the target group.** Van Vroonhoven suggests placing a stronger emphasis on the target group (potential teachers) within teacher training programs. This involves tailoring education and training to meet the specific needs and aspirations of individuals interested in becoming teachers, thereby increasing the attractiveness and effectiveness of these programs.
- **Increased involvement of the teaching profession.** The report recommends actively involving the teaching profession in the development of teacher training programs and professional development initiatives. By incorporating the expertise and insights of current teachers, the education system can better align with the realities and demands of the classroom, fostering a stronger connection between theory and practice.
- **Improved alignment between education and practice.** Van Vroonhoven argues for better alignment between teacher training programs and the practical realities of the classroom. This can be achieved through stronger partnerships between educational institutions and schools, ensuring that aspiring teachers receive practical experience, mentorship, and exposure to real teaching contexts during their training.

By implementing these arguments, as suggested by Van Vroonhoven's report, the aim is to address the primary school teacher shortage in a more coordinated, evidence-based, and targeted manner. This approach focuses on developing teachers who are well-prepared, connected to the profession, and equipped to meet the needs of diverse classrooms.

McKinsey & Company (2020) – A reinforced foundation for everyone

The report 'Een verstevigd fundament voor iedereen' (2020) by McKinsey & Company was published just after the lockdown had hit education and possibly did not receive as much attention as it would have in a not lockdown situation. It included an in-depth analysis of the current state of education and the effectiveness of resources used. It focusses on a wide angle of aspects of the teaching profession and is written as a roadmap to strengthen the teaching workforce in the Netherlands.

- **Strengthening the teacher pipeline.** The report emphasizes the need to enhance the teacher pipeline by attracting high-quality candidates to the teaching profession. This involves implementing targeted recruitment strategies, improving the image and attractiveness of the profession, and offering competitive compensation and career progression opportunities.
- **Investing in initial teacher education.** The report suggests investing in the quality of initial teacher education programs to better prepare future teachers. This can be achieved by aligning the curriculum with the needs of the classroom, providing more practical training opportunities, and integrating evidence-based teaching methods and pedagogical approaches.
- **Supporting continuous professional development.** The report highlights the importance of ongoing professional development for teachers throughout their careers. This includes providing relevant and high-quality training opportunities, fostering a culture of collaboration and knowledge sharing among teachers, and utilizing technology to support continuous learning and improvement.
- **Promoting effective leadership and school management**. The report emphasizes the role of effective leadership and school management in attracting and retaining teachers. It recommends providing school leaders with the necessary training and support to create positive and supportive working environments, implement effective instructional practices, and facilitate professional growth opportunities for teachers.

- **Fostering collaboration and knowledge sharing.** The report suggests promoting collaboration among schools, teachers, and educational institutions. This can be achieved through establishing professional learning communities, sharing best practices and successful teaching strategies, and facilitating networks and partnerships to exchange ideas and resources.
- **Enhancing working conditions and well-being.** The report underscores the importance of improving working conditions and well-being for teachers. This includes addressing issues such as workload, administrative burdens, and classroom management challenges, as well as promoting work-life balance and providing adequate support systems for teachers' well-being.

In short, the aim is to strengthen the primary school teacher workforce in the Netherlands, attract and retain talented individuals, and create an environment that supports effective teaching and positive student outcomes.

Lodewijk Asscher (2022) – Children first
Two years later, in 2022, Lodewijk Asscher is asked to advise the ministers on addressing teacher shortages. In this 'pioneer advice on tackling education staff shortages to intensify the approach to shortages', he calls for clear and non-discretionary national coordination, while taking into account diverse regional situations. Existing regional initiatives should therefore be consolidated into a regional organization that should be assigned the task and corresponding authority to ensure an adequate number of education personnel.

- **Monitoring shortages and effectiveness research.** It is crucial to monitor the effects of policies closely and pursue effectiveness research on the imposed policies. There is a need to construct an appropriate system for this purpose.
- **Custom work in the region and national conditions and measures.** The maximum impact should result from a combination of custom work in the region and national conditions and measures. The art is to organize in such a way that learning from what works and what does not is possible along the way, and quick adjustments can be made accordingly.
- **Improve aspects that apply for the whole country.** Topics that apply nationally and recur frequently include:
    - Structurally strengthening the 'teacher' brand through campaigns
    - Increasing career opportunities within education
    - Enhancing the quality of human resource policies in schools and school boards
    - Improving support for teaching staff and workload management
    - Better aligning teacher training with practice and involving the professional group in this
    - Make working more hours financially more attractive
- **More focus and cohesion.** Looking at the entirety of measures, more focus and cohesion are necessary. The recommendation is to cluster the approach to the teacher shortage along these intervention lines and focus on them:
    - Increasing the number of working hours of the existing teacher corps
    - Increasing and maintaining the inflow of career switchers into teaching
    - Increasing the inflow of future teachers and preventing the outflow of teachers from education

  These three intervention packages are not exhaustive. It remains necessary to consider new measures that can contribute to tackling the shortages. However, by increasing the impact from these three packages, a greater contribution can be made to eliminating the shortages. When introducing new measures, it should always be substantiated how they fit into the broader strategy.

Schleicher (2018) - International Approaches to Addressing Teacher Shortages

Asscher (2022) also uses international research in the formulation of recommendation, and although he recognizes that no policy can be copy pasted from one system to another, it is useful to take inspiration from the most effective strategies employed in countries dealing with the same issue. As Asscher describes, using Schleicher (2018) as a main reference, teacher shortages are a prevalent issue not only in the Netherlands but also in numerous European Union (EU) member states. The aging teacher population in Europe, coupled with the perceived lack of attractiveness of the teaching profession, has contributed to this problem in multiple countries across the continent. Similarly, teacher shortages also extend beyond the EU, with countries worldwide experiencing similar challenges (Schleicher, 2018).

However, some countries, including Finland, Estonia, and Singapore, have successfully avoided teacher shortages. This prompts the question of how other countries address these shortages and what lessons can be learned from their approaches. Strategies employed to tackle teacher shortages can be categorized into recruitment, retention, and organizational changes.

Recruitment efforts focus on attracting potential educators through initiatives such as study grants, entry bonuses, and enhanced requirements for teacher education programs. Retention strategies aim to keep qualified teachers by offering professional development opportunities, financial incentives, and support systems. Organizational changes involve restructuring aspects of the education system, such as reducing teaching hours and increasing the utilization of teaching assistants. Schleicher (2018) names a couple of overarching themes that seem to be successful when trying to tackle the teacher shortage:

- Teacher policy is embedded in a vision of societal challenges and the role of education therein: what do students need?
- A shared understanding of the teaching profession and a collectively felt responsibility.
- A well-thought-out recruitment strategy at the system level.
- A coherent strategy focused on leadership development.
- The school is viewed as a modern labor and knowledge organization, which entails teamwork and job differentiation.
- The "Location of expertise" lies within the school and within professional communities.
- There is a strong emphasis on scientific knowledge: teaching is a knowledge-intensive profession.
- Differentiated career paths exist where teaching goes beyond classroom instruction ("a good teacher reaches multiple classrooms").
- The best teachers are placed in the schools where they are most needed.

Appendix G. Output data of Q-methodology survey

This appendix includes an overview of all the raw and cleaned results obtained from the Q-methodology survey. These results include de Q-sorts of all participants, the post-sorting comments placed after the statements participants felt most strong about, and their post sorting survey responses providing background information on each of the respondent.

Q-sorts

Below are the Q sorts of the 30 respondents. Each row represents the Q sort of 1 respondent. Each column represents a statement. The respondents have been given a participant ID named Teacher 1 to Teacher 30. This serves the purpose of easier interpretation and reflection on the results when describing the profiles.

Statement #																					
Participant ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Teacher 1	-3	2	-4	1	0	3	-2	-3	4	0	-5	-1	2	0	3	1	-1	5	-1	1	-2
Teacher 2	3	0	-5	-4	4	-3	5	-2	3	-1	2	1	1	0	0	2	-1	1	-2	-3	-1
Teacher 3	-3	-1	-3	1	0	-4	-2	-2	1	-1	3	-1	1	2	4	3	0	5	-5	2	0
Teacher 4	-1	1	3	-1	1	-4	3	-2	-5	-3	5	1	-2	-1	2	2	0	0	-3	0	4
Teacher 5	-4	2	0	-2	1	1	1	-2	5	-3	2	0	4	3	3	-1	0	-1	-5	-3	-1
Teacher 6	-3	1	-1	2	0	-2	-2	1	-1	1	0	0	2	3	5	4	3	-3	-5	-4	-1
Teacher 7	-4	1	-2	2	2	-3	-1	-1	-1	0	0	1	0	3	4	5	3	-2	-5	-3	1
Teacher 8	-3	-4	-5	5	2	-1	0	2	-3	-2	4	-1	1	3	1	0	-1	0	-2	3	1
Teacher 9	-2	-1	2	4	0	0	5	1	-3	-1	-5	-1	3	-3	3	1	2	1	-2	-4	0
Teacher 10	-3	1	-5	4	-1	0	0	-4	-3	1	-1	0	2	-2	5	2	3	3	-1	-2	1
Teacher 11	-1	2	-3	4	1	0	0	-1	-4	-2	-3	-1	-2	0	3	1	3	1	-5	2	5
Teacher 12	-1	0	4	1	1	0	3	-1	-3	1	-5	-3	-1	2	2	3	5	-4	-2	-2	0
Teacher 13	-5	-4	-2	-2	-3	3	4	0	3	-1	1	5	1	1	0	2	0	2	-3	-1	-1
Teacher 14	0	-5	1	3	2	0	0	-2	-2	1	-1	-1	5	4	3	1	-1	-3	-4	-3	2
Teacher 15	5	2	-2	-1	0	-3	4	0	-1	1	-5	3	-3	1	2	0	-2	-1	1	-4	3
Teacher 16	-4	1	0	0	0	-3	3	-5	2	-3	3	-1	1	4	2	1	5	-1	-2	-1	-2
Teacher 17	-4	-5	-3	1	-3	0	5	3	2	-1	-2	-2	2	0	3	0	1	4	-1	1	-1
Teacher 18	-4	0	-5	-3	5	0	3	-2	4	2	-2	2	0	1	1	1	3	-1	-1	-1	-3
Teacher 19	-5	-4	-3	0	0	-1	0	-1	2	-3	-2	2	1	3	1	4	3	5	-2	1	-1
Teacher 20	-4	-2	-3	1	1	1	3	-5	2	-2	0	2	3	5	4	0	0	-1	-1	-1	-3
Teacher 21	-3	0	-4	3	0	-1	-3	2	1	1	-1	-2	5	4	2	1	3	-2	-5	-1	0
Teacher 22	-2	3	-1	1	2	0	5	1	-3	-1	-5	-2	0	-1	4	3	1	-4	2	-3	0
Teacher 23	-5	-1	-1	2	-3	-2	1	0	-3	-2	-1	0	1	2	0	3	3	4	-4	5	1
Teacher 24	-2	-5	-4	3	3	-1	-1	4	2	0	-3	0	5	1	1	0	-1	1	2	-3	-2
Teacher 25	-5	-1	4	0	1	-1	-1	-2	3	1	5	3	2	1	0	2	0	-2	-4	-3	-3
Teacher 26	-5	2	-1	3	4	-1	-4	1	-3	-1	-3	-2	1	2	5	1	3	0	-2	0	0
Teacher 27	3	-2	3	0	0	1	5	1	-2	2	-3	-1	-1	2	4	0	-1	-3	-5	-4	1
Teacher 28	3	1	1	4	5	-1	2	2	-4	-2	-5	-3	-1	-1	0	0	-3	1	0	-2	3
Teacher 29	0	-1	1	5	4	-4	2	3	-1	-3	-5	-2	1	3	1	0	-1	-3	-2	0	2
Teacher 30	0	-2	0	2	4	-3	-1	-2	1	-1	3	0	1	3	2	5	1	-4	-3	-5	-1

Figure 34 Q-sorts of respondents

Post sorting comments

Post sort comments of respondents are presented in the three figures below. Each respondent gave reasing for placing their two outer most statements on each side of the spectrum (very important and not important). 28 out of the 30 respondents filled out these post sorting comments. Note: These are the original Dutch versions of the output data and have not been translated to English. We can see varying lengths of the responses but generally they were between one and three sentences for each statement. The number in bracket before the answer represents the statement that the comment is about. The corresponding statements can be found in Figure 24.

Teacher ID	Very important (rank 4)	Very important (rank 5)	Not important (rank -4)	Not important (rank -5)
Teacher 1	(s9) Ik vind het heel belangrijk dat de professionele kennis van leerkrachten mee wordt genomen in het ontwikkelen van beleid. Uiteindelijk denk ik dat je met het leerkrachtenteam tot het meest passende onderwijs op jouw school kan komen. Ik benadruk hierbij dat het met het team is. Compleet je eigen lessen ontwikkelen is iets goed als het binnen een bepaalde visie past. Anders wordt het los zand en kun je als school geen goede doorgaande lijn waarborgen. Met goed overleg kun je dit wel.	(s18) Dit is de reden dat ik ervoor heb gekozen om in Rotterdam-West les te geven. Ik vind heel sterk dat iedereen de kans moet krijgen om zich optimaal te kunnen ontwikkelen naar diens wil. Hier heeft helaas niet iedereen een gelijke kans voor. Ik wil er graag mijn steentje aan bijdragen dat de kansen voor iedereen groter worden.	(s3) Dit is iets wat mij nu goed uitkomt omdat ik ernaast nog een master doe. Het is echter niet iets waar ik heel veel waarde aan hecht. Het is denk ik zelfs één van de redenen waarom er zo'n groot tekort is.	(s11) Ik wil graag meedenken en doorgroeien in beleidstaken en leerkrachten helpen om hun onderwijs zo optimaal mogelijk in te richten. Hier hoef ik binnen de school echter geen andere functie voor. Ik zie mezelf eerder het lesgeven en daarnaast een adviserende rol aannemen voor de scholengroep. Daarnaast vind ik het nog erg waardevol (en leuk) om ook gewoon nog voor de klas te staan.
Teacher 2	(s5) Ik denk dat iedereen het erover eens is dat het onderwijs van groot belang is voor een goed lopende maatschappij. Dan mag dat ook op een goede manier met een goed salaris worden gewaardeerd.	(s7) Ik denk dat het belangrijk is dat een leerkracht de vrijheid heeft om zijn of haar eigen lesgeefstijl te ontwikkelen binnen natuurlijk kaders die worden gesteld door de school.	(s4) Ik denk dat in het onderwijs ook een beetje de sfeer heerst dat het heel druk is. Ik denk dat het wel meevalt met de werkdruk.	(s3) Ik vind dat er veel te veel part - time wordt gewerkt binnen het onderwijs. Ik ben volgend jaar de enige leerkracht die vijf dagen werkt. Ik vind dat absurd.
Teacher 3	(s15) Alhoewel de groepsleerkrachten de dragende krachten zijn binnen een school is het erg belangrijk dat de schoolleider duidelijkheid en betrouwbaarheid uitstraalt. De werkdruk op school is hoog waardoor het voor leerkrachten prettig is als er een schoolleider is die de leerkrachten kan ondersteunen en met ze mee kan denken. De schoolleider moet onvoorwaardelijke klaar staan voor zijn werknemers.	(s18) In de wereld en in verlenging in Nederland is er sprake van een grote kansenongelijkheid. Vanwege het verstikkende kapitalisme is het bijzonder lastig voor kinderen met een lage SES om deze status te ontgroeien. Ik ben van mening dat deze kinderen extra veel aandacht en ondersteuning verdienen om deze kloof te overbruggen. Ik werk graag waar ik het meeste invloed heb op mijn leerlingen dit kan ik naar mij idee het beste doen op een school met een hoge mate van armoede.	(s6) Lesmethodes verschillen redelijk sterk toch vind ik het minder belangrijk om mijn eigen methoden te kiezen. Dit komt vooral doordat je als leerkracht toch vaak je eigen draai geeft aan de lessen in de methode. Bovendien worden lesmethoden over het algemeen zorgvuldig gekozen door directie en zijn er bij deze keuze veel andere (financiële) factoren die meespelen waar je als groepsleerkracht weinig zicht op hebt.	(s19) Het maakt mij weinig uit of ik hard nodig ben of niet. Ik sta voor de klas voor de kinderen niet om gewild te zijn.
Teacher 4	(s21) Mijn huidige klas is te groot naar mijn zin. Ik vind het belangrijk dat er meer aandacht en tijd per kind is en in de huidige onderwijssituatie kan dat niet. Daarom vind ik het van belang dat klassen kleiner worden zodat er meer aandacht kan zijn voor individuele leerlingen.	(s11) Ik ben opgeleid als academische leerkracht en haal niet genoeg voldoening uit alleen lesgeven. Daarom is het voor mij belangrijk dat ik op langere termijn kan doorgroeien naar een andere functie.	(s6) De lesmethoden worden gekozen door een werkgroep. Ik ga ervan uit dat de werkgroep een weloverwogen keuze heeft gemaakt op de best passende lesmethode voor onze school te kiezen. Ik ga daar gewoonweg mee akkoord en voer de lessen uit.	(s9) Meedenken met het schoolbeleid vind ik minder belangrijk in mijn werk als leerkracht. Hetgeen ik wil doen is voor de klas staan en de leerlingen onderwijzen en mooie gesprekken met hen voeren. Niet meedenken over het schoolbeleid.
Teacher 5	(s13) Om een school goed te laten functioneren is een leider nodig die vanuit een visie handelt en weet waar de school voor staat. Ik vind het belangrijk dat de schoolleider een team kan aansturen om samen goed onderwijs te maken.	(s9) Ik wil mijn ideeën of twijfels over het gegeven onderwijs en toekomstig onderwijs kunnen uiten en verwerken in het schoolbeleid.	(s1) Voor mij maakt afstand niet uit voor mijn werkzaamheden op school.	(s19) Het lerarentekort is er nu eenmaal en ik voel me niet meer of minder geroepen om in het onderwijs te werken nu dat er is en toeneemt.
Teacher 6	(s16) Collega's die er voor je zijn is belangrijk om plezier te hebben in je werk en als sparringspartner.	(s15) Een schoolleider waar je niet op kan rekenen is funest voor het werkgeluk.	(s20) Dit is niet de doelgroep waar ik affiniteit mee heb. Er zitten al veel leerlingen met speciale zorg in het regulier onderwijs.	(s19) Inmiddels ben je als leerkracht op alle scholen hard nodig. De kar in je eentje trekken (gaten dichtlopen) is geen plezierije dus ik werk liever op een school met minder tekorten.
Teacher 7	(s15) Zonder betrouwbare schoolleider versplintert het team ook snel. Een team kan dan niet goed samenwerken en moet zelf alles gaan regelen. Dat werkt inefficiënt en ineffectief.	(s16) Voor mij maakt het team het grootste verschil. Ik heb verschillende scholen meegemaakt waar het team totaal niet hecht was daar ging ik met minder plezier naar mijn werk. Bij mijn huidige werk voel ik me op mijn plek in het team en voel ik me veilig. Hier heb ik het de hele dag naar mijn zin.	(s1) Ik woon op het moment anderhalf uur reizen met het ov van mijn werk. Dat is best ver maar zeker als parttimer prima te doen. Het is het ook zeker waard door de school waar ik werk.	(s19) Hard nodig zijn vind ik niet zo belangrijk. Het is fijn dat je overal aan het werk kan komen en gewild bent maar ik vind het niet bevorderlijk voor de kwaliteit van leerkrachten. Het creëert een soort luiheid en ik heb vaker de uitspraak gehoord 'ik word toch wel ergens aangenomen'. Wat mij betreft moeten leerkrachten (net zoals kinderen) leren en streven om beter te worden. Het lerarentekort helpt daar in mijn ogen niet altijd bij.
Teacher 8	(s11) Na jaren lesgeven is het fijn als je iets anders in het onderwijs kan doen. Een nieuwe uitdaging hou je op de been. Het zou goed zijn die functies beter te belonen.	(s4) Er moet van hogerhand te veel genoteerd worden. Dit zie ik als te weinig vertrouwen in de leerkracht. Na een dag lesgeven moet je nakijken voorbereiden vergaderen etc etc. Er moeten handelingplannen gemaakt worden voor zorgleerlingen. Die plannen kosten erg veel tijd en zijn gemaakt door mensen die achter de computer zitten en niet voor de klas staan. Geef die tijd aan kinderen ipv aan het voldoen aan het systeem. Natuurlijk heb je een plan voor een kind maar al dat vastleggen word je gek van.	(s2) Op dit moment is er zat werk en een vast contract is minder essentieel.	(s3) Goed voor het onderwijs als er fulltimers zijn. Fijn voor de kinderen. Maar indien je zelf een gezin krijgt is parttime werken wel belangrijk.

Figure 35 Post sorting comments of respondents (part 1)

Teacher ID	Very important (rank 4)	Very important (rank 5)	Not important (rank -4)	Not important (rank -5)
Teacher 9	(s4) Zoals hierboven al beschreven: het kan echt zwaar werk zijn. Ik ben een startend leerkracht en merk dat ik me soms al bijna overspoeld voel door al het werk. Ik vind het heel belangrijk dat schoolleiders oog hebben voor de werkdruk en met je meedenken hoe deze werkdruk nog aanvaardbaar is voor jou als leerkracht. Anders ben je na een poosje weer een leerkracht kwijt.	(s7) Ik kan de beste leerkracht zijn als ik achter mijn manier van lesgeven sta. Alleen dan kan ik het met overtuiging brengen maar vooral: alleen dan kan ik er elke dag voldoende energie voor opbrengen. Het is soms een zware baan maar kan zo ontzettend leuk worden als je de vrijheid hebt om je eigen koers te varen (uiteraard met je kennis en ervaring op zak).	(s20) Mijn interesse en ambitie ligt niet in het speciaal onderwijs ik denk dat ik daar ook niet geschikt voor ben.	(s11) Ik doe een master Orthopedagogiek aan de Universiteit Leiden en als ik een andere baan wil kan ik met die opleiding alle mogelijke interessante richtingen op. Als ik dan toch op een basisschool werk word ik liever een hele goede leerkracht dan een IB'er of schoolleider. Ik hoef zelf als leerkracht niet door te groeien.
Teacher 10	(s4) Ik heb zelf last gehad van een burn-out en weet hoe hoog de werkdruk is en hoe bepaalde mensen zich erin kunnen verliezen. Daarnaast zijn leerkrachten hard nodig en is het goed om te weten hoe het gaat met je werknemers om het optimale uit de organisatie te halen.	(s15) Ik vind het belangrijk dat een schoolleider betrouwbaar is aangezien een organisatie in het onderwijs goed moet kunnen samen werken. Het is een organisatie met een groot verschillend aanbod van mensen met veel verschillende ideeën en verschillende benodigdheden.	(s8) Administratief werk hoort bij het lesgeven het is belangrijk dat het goed op orde is aangezien klassen worden doorgegeven aan andere leerkrachten die niet altijd precies weten wat er in een klas omgaat. Dit geldt ook voor de IB'ers en bijvoorbeeld bouwcoördinatoren. Ander administratief werk zoals afwezig melden en te laat komen melden verschilt per belang maar het helpt wel om het onderwijs voor alle kinderen goed aan te pakken.	(s3) Ik vind full-time werken een fijne manier van werken in het onderwijs. Zelf ben je goed op de hoogte wat er de gehele week gebeurt in de klas en kan je dus ook makkelijker dingen oppakken die je niet hebt kunnen doen.
Teacher 11	(s4) Er is een hoge werkdruk. Deze komt door bovenstaande. Maar ook door de vele administratie. Er komt veel op het bordje van de leerkracht. De dagen zijn lang en intensief. Vele vergaderingen.	(s21) Liever kleinere klassen dan een beter salaris. Dit komt namelijk de kinderen ook ten goede. En vele gedragsproblemen komen minder voor in kleinere klassen. De hoge werkdruk komt vaak door veel kinderen in de klas.	(s9) Ieder zijn vak. Ik vertrouw een schoolleider hierin. Laat mij maar lesgeven.	(s19) Dit mag geen reden zijn om dit werk te doen. Dit is meer een gevolg van jarenlang slecht beleid van de overheid.
Teacher 12	(s3) Medisch gezien kan ik niet full-time werken.	(s17) Daardoor kom je tot nieuwe ideeen en inzichten.	(s18) Ik wil elk kind verder helpen. Ongeacht de leefomstandigheid.	(s11) Die ambities heb ik niet.
Teacher 13	(s7) Ik ben ervan overtuigd dat ik zelf het beste weet wat mijn leerlingen nodig hebben. Als dit van hogerop opgelegd wordt raak ik gedemotiveerd. Natuurlijk is er altijd ruimte voor overleg en zullen bepaalde dingen gewoon moeten maar er moet ook zeker genoeg ruimte zijn voor eigen ideeën/inbreng.	(s12) Ik wil blijven leren. Dit motiveert mij en daar krijg ik energie van.	(s2) Gezien het lerarentekort kan je altijd wel ergens terecht. Die zekerheid is er al dus dan is een vast contract niet per se noodzakelijk. Als het lerarentekort er niet was zou dit wel anders zijn.	(s1) Ik vind het juist fijn om niet te dicht bij school te wonen zodat je niet zo snel in je vrije tijd leerlingen tegenkomt.
Teacher 14	(s14) Je bent veel alleen in de klas. je hebt goede leiding nodig voor inspiratie plezier veiligheid etc op je werk in het basisonderwijs.	(s13) Zonder duidelijke lijn en afspraken die bewaakt worden is er geen goed doorgaande lijn in de school.	(s19) Ik wil gewoon graag mijn werk lesgeven doen. Dat is volgens mij altijd nodig. Ik werk niet harder of beter omdat er een leraren tekort is.	(s2) Ik ben leerkracht op de basisschool. Dat is alles wat ik nodig heb in een contract.
Teacher 15	(s7) Ik heb behoefte aan autonomie. Ik wil graag zelf bepalen hoe ik de doelen met de leerlingen ga halen ipv standaard de methode te moeten volgen.	(s1) Ik heb ervaren hoe het is om ver te wonen van mijn werk dit kostte mij veel energie. Daarom is het extra belangrijk voor mij om nu juist te kiezen voor minder woon-werk reistijd.	(s20) Geen specifieke reden.	(s11) Ik hou van lesgeven en heb geen ambitie voor zaken als schoolleider etc. Wel in het specialiseren binnen mijn vakgebied.
Teacher 16	(s14) Als een schoolleider een team effectief aanstuurt heeft iedereen daar baat bij. Dit gaat door in alle lagen. En past ook weer bij bovenstaande stelling. Inspirerende ideeën komen het best tot hun recht als ze effectief aangestuurd worden.	(s17) Door inspirerende collega's krijg ik meer werkplezier krijgen de kinderen waardevollere lessen omdat je samen meer bedenkt dan alleen.	(s1) Ik vind het niet belangrijk om heel dicht bij de school te wonen maar ik zou geen uur rijden voor een basisschool.	(s8) Ik vind dat dit bij je werk hoort ik denk ook dat je door administratie patronen kunt zien en verbreken (bijvoorbeeld bij een leerling die vaak te laat is)
Teacher 17	no response	no response	no response	no response
Teacher 18	(s9) Ik ben graag inhoudelijk bezig	(s5) Dat is het uiteindelijke doel van werken	(s1) Wat verder weg wonen brengt anonimiteit met zich mee in je privéleven	(s3) Dat levert te weinig op ik werk graag
Teacher 19	(s16) Heeft te maken met het werkplezier en hoe je voor de klas staat. in mijn huidige baan voel ik me steeds op mijn vingers gekeken en doet iedereen heel naar.	(s18) Er is veel ongelijkheid binnen basisscholen en veel leerkrachten erkennen dit wel maar doen er verder niet veel mee. Het is belangrijk om methodes te bedenken die leerkrachten kunnen gebruiken het tegen te gaan.	(s2) Je komt altijd wel aan de bak op een plek die bij je past.	(s1) Soms kan een leuke school wat verder weg zijn
Teacher 20	(s15) De schoolleider is diegene bij wie je aan moet kunnen kloppen als er iets niet lekker loopt of als je ideeen hebt. Op het moment dat hij/zij niet betrouwbaar is of niet zorgt voor een veilig gevoel dan kunnen kleine dingen oplopen tot grotere problemen. Tevens is hij/zij ook belangrijk voor ouders die tegen dingen aanlopen.	(s14) Een schoolleider die effectief kan aansturen zorgt voor een goede gang van zaken binnen de school. Tevens zorgt dit voor effectief en efficient werken.	(s1) Ik vind de sfeer en de visie van een school erg belangrijke onderwerpen als ik op zoek ga naar een (nieuwe) school om te werken. De afstand is daarbij veel minder van belang. Ik vind reizen naar mijn werk geen enkel probleem.	(s8) Administratie hoort bij het werk en geeft vaak ook meer inzicht. Ik vind het soms heerlijk om dit even te doen na schooltijd om even mijn gedachtes meer structuur te geven door alles te noteren. Daarnaast ben ik ook altijd wel redelijk snel klaar met alle administratie.

Figure 36 Figure 23 Post sorting comments of respondents (part 2)

Teacher ID	Very important (rank 4)	Very important (rank 5)	Not important (rank -4)	Not important (rank -5)
Teacher 21	(s14) Effectief en daadkrachtig. Heldere communicatie goed bereikbaar zijn en korte lijntjes. Mensen individueel aan durven en kunnen spreken. Vergaderingen leerteams etc goed kunnen leiden door bijvoorbeeld inzetten van scrum.	(s13) Schoolleiders met gebrek aan visie krijgen het onderwijs niet op een hoger plan. Hier heeft een schoolleider uiteraard een goed team bij nodig.	(s3) Tja eigenlijk ook gewoon belangrijk. Als er alleen fulltime banen in het onderwijs zouden zijn zou ik afhaken. In het basisonderwijs werk ik elke week gemiddeld 6 uur meer dan ik voor betaald wordt en dan nog heb ik het gevoel dat ik prioriteiten moet stellen en werk blijft liggen. Fulltime gaat interessant worden als het onderwijs eerst eens flink op de schop gaat. Fatsoenlijke pauzes en vooral tijd om goede lessen voor te bereiden. Het is intensief tijdens schooltijd maar ook na schooltijd.	no response
Teacher 22	(s15) Het is fijn dat je schoolleider doet wat die zegt en zegt wat die doet. Een schoolleider moet achter zijn team staan en betrouwbaar zijn. Ook naar ouders toe. Maar je wil dat je als leerkracht je ondersteunt voelen.	(s7) Ik maak mijn klas door mijn input ontvang ik feedback van de klas. Zoals ik sta voor mijn klas zoals mijn klas laat zien wat ik goed doe en waar ik beter kan doen. Daarnaast kan ik niet anders lesgeven dan mij en mijn leerkrachten stijl past. Ookal is deze constant in ontwikkeling ik zal deze nooit helemaal aanpassen voor een school.	(s18) Het is niet mijn doelgroeplk	(s11) Ik zie mijzelf niet in deze rollen.
Teacher 23	(s18) Idem ik vind het mooi om bij te kunnen dragen aan kansengelijkheid en werken met deze doelgroep spreekt mij in het algemeen meer aan.	(s20) Hier voel ik de meeste passie bij ik krijg energie van kinderen met speciale behoeften verder kunnen helpen.	(s19) Het is fijn om nodig te zijn maar dit is nooit de drijfveer geweest voor mij om leerkracht te worden. Dit wil ik al van kinds af aan en dat dit tekort er nu 'toevallig' is is niet de reden voor mij om leerkracht te zijn.	(s1) Ik wil juist niet wonen in de buurt van school ik woon liever iets meer op afstand. Het stuk fietsen helpt me afstand te nemen van de werkdag en ik kom liever niet dagelijks kinderen tegen in de supermarkt etc.
Teacher 24	(s8) Ik ben allergisch voor administratieve taken. Dat is een persoonlijk dingetje. Bijna nooit kijkt iemand emaar. Zelf kijk ik er nóóit naar. Omdat ik het een vervelende nutteloze taak vind kost het me heel veel energie.	(s13) Werkplezier staat of valt bij goede leiding van de school.	(s3) Ik werk graag fulltime. Dat is de fijnste manier om een klas te draaien.	(s2) Een vast contract is op dit moment niet nodig. Je kunt overal werken. Misschien denk ik hier over een paar jaar anders over.
Teacher 25	no response	no response	no response	no response
Teacher 26	(s5) De hoeveelheid werk die ik verrichte naast de betaalde uren zorgde ervoor dat ik er op een bepaald moment mijn salaris in daadwerkelijke uren ben gaan uitrekenen en uitkwam op het minimum loon… Toen dacht ik: ik ben wel gek als ik dit blijf doen voor zo weinig geld! Wel moet ik erbij zeggen dat ik het een dag in de week deed naast de pre-master die ik volgde en dat het een hele moeilijke klas was. Ik weet ook dat de twee docenten na mij ook zijn gestopt. Maar als docenten gewoon zo laag betaald blijven worden voor de hoeveelheid werk die ze erin moeten stoppen dan werk ik liever in de horeca als bijbaan. Dan krijg je gewoon precies zoveel salaris als de uren die je werkt.	(s15) Ik heb ervaren hoe het is om onder een schoolleider te werken die onbetrouwbaar was en dan is het	(s7) Hoewel ik zeer voorstander ben voor dat je zelf mag bepalen hoe je les geeft vind ik dat als Vrijeschool docent het meest vanzelfsprekende ook en vind ik juist methodes ook wel fijn om uit te werken. Je hoeft ze dan tenminste niet zelf te maken in je vrije en onbetaalde tijd.	no response
Teacher 27	(s15) Het tegenovergestelde meegemaakt en dar op afgebrand	(s7) Dan werk ik beter	(s20) Is nuttig maar niet mijn ding	(s19) Daar haal ik mijn lol niet uit
Teacher 28	(s4) De werkdruk is veel en veel te hoog door de administratieve taken en de extra taken die een leerkracht heeft.	(s5) Om in de buurt van je werk te kunnen wonen moet je een hypotheek kunnen krijgen. Dat kan niet met het huidige (LB12) salaris.	(s9) Ik heb het al druk genoeg met mijn eigen klas om ook nog eens mee te denken met schoolbeleid.	(s11) Ik ben meer 'hands on' sta graag met mijn voeten in de klei. Lesgeven is het leukste dat er is.
Teacher 29	(s5) Tja wel duidelijk meen ik. Moet ook mijn rekeningen betalen	(s4) Moet wel leuk blijven vooral onzintaken weg	(s6) Had dit bij belangrijker moet kiezen	(s11) geen interesse zo op het einde van mijn loopbaan. Plus IB er of schoolleider is niets voor mij
Teacher 30	(s5) Ik vind het belangrijk dat leerkrachten goed worden betaald. Het is ontzettend hard werken en zeker geen gemakkelijke baan. Hiervoor hoort een goede compensatie tegenover te staan. In mijn ervaring is het veel harder werken dan een gemiddelde kantoorbaan terwijl die banen in veel gevallen beter betaald zijn en betere carrière perspectieven bieden in termen van een hoger salaris.	(s16) Hier krijg ik ontzettend veel energie van en is een heel belangrijk onderdeel van mijn werkplezier.	(s18) Dit aspect vind ik minder belangrijk omdat in mijn optiek het lesgeven aan kinderen in de basis al erg zinvol werk is. Daarnaast spelen er vaak meerdere problematieken een rol bij het lesgeven aan kansarme kinderen en als startend leerkracht zou dat voor mij te veel worden. Ik wil eerst het vak van leerkracht goed onder de knie krijgen.	(s20) Hier ligt mijn interesse niet.

Figure 37 Figure 23 Post sorting comments of respondents (part 3)

Survey results

Next the output of the survey is documented below. Results were cleaned and translated to English. Unfortunately, an error occurred with the first question asking participants age, that question was only answered by 15/30 participants. Apart from this 27 out of 30 respondents answered all questions. One participant (teacher 12) didn't answer the last four questions and one participant (teacher 20) didn't answer the last three questions. Further, one respondent (teacher 26) answered 2,0 FTE on the question regarding working hours which is a non-valid response given the range is from 0 to 1. This response was therefore removed.

Teacher ID	What is your age?	What is your sex?	Are you searching a new job as teacher at the moment?	At what type of school do you work currently?	In which municipality do you work?	Do you have a permanent contract?	How many FTE do you work?	Which degree did you pursue to become a teacher?
Teacher 1	<= 25	Man	No	Openbare basisschool	Rotterdam	Yes	0,6	Academische PABO
Teacher 2	no response	Woman	No	Openbare basisschool	Amsterdam	Yes	0,8	Deeltijd PABO
Teacher 3	26 - 35	Man	No	Confessioneel bijzondere school (bijv. christelijk, protestants, etc)	Den Haag	No	0,8	Academische PABO
Teacher 4	no response	Woman	No	Confessioneel bijzondere school (bijv. christelijk, protestants, etc)	Den Haag	Yes	0,4	Academische PABO
Teacher 5	no response	Woman	No	Openbare basisschool	Leiden & Den Haag	No	0,775	Academische PABO
Teacher 6	36 - 45	Woman	No	Confessioneel bijzondere school (bijv. christelijk, protestants, etc)	Nootdorp	Yes	1,0	PABO
Teacher 7	<= 25	Woman	No	Openbare basisschool	Wassenaar	No	0,6	PABO
Teacher 8	no response	Woman	No	Speciaal basisonderwijs (sbo)	Den Haag	Yes	0,4	PABO
Teacher 9	<= 25	Woman	No	Confessioneel bijzondere school (bijv. christelijk, protestants, etc)	Leiden	Yes	0,4	Academische PABO
Teacher 10	no response	Woman	No	Openbare basisschool	Delft	No	0,5750	Deeltijd PABO
Teacher 11	no response	Woman	Yes, a job that suits my preferences better	Openbare basisschool	utrecht	Yes	0,8	Deeltijd PABO
Teacher 12	no response	Woman	No	Openbare basisschool	no response	no response	no response	no response
Teacher 13	<= 25	Woman	No	Openbare basisschool	Amsterdam	Yes	0,8	Academische PABO
Teacher 14	26 - 35	Woman	No	Openbare basisschool	den haag	Yes	0,6	PABO
Teacher 15	26 - 35	Woman	No	Openbare basisschool	Den Haag	No	0,6	Deeltijd PABO
Teacher 16	no response	Woman	No	Openbare basisschool	Losser	Yes	1,0	PABO
Teacher 17	no response	Man	No	Openbare basisschool	Amsterdam	Yes	1,0	PABO
Teacher 18	56 - 65	Woman	No	Confessioneel bijzondere school (bijv. christelijk, protestants, etc)	Voorburg	Yes	1,0	PABO
Teacher 19	26 - 35	Woman	Yes, a job that suits my preferences better	Openbare basisschool	Utrecht	Yes	1,0	Academische PABO
Teacher 20	no response	Woman	No	Confessioneel bijzondere school (bijv. christelijk, protestants, etc)	Amsterdam	no response	no response	no response
Teacher 21	36 - 45	Woman	No	Algemeen-bijzondere basisschool (bijv. montessori, jenaplan, etc)	Zutphen	Yes	0,629	PABO
Teacher 22	36 - 45	Woman	Yes, a job that suits my preferences better	Openbare basisschool	Koog aan de Zaan	No	0,8	Deeltijd PABO
Teacher 23	no response	Woman	No	Confessioneel bijzondere school (bijv. christelijk, protestants, etc)|Speciaal basisonderwijs (sbo)	Utrecht	Yes	0,6	Academische PABO
Teacher 24	no response	Woman	No	Openbare basisschool	Den Haag	Yes	1,0	PABO
Teacher 25	26 - 35	Woman	No	Openbare basisschool	Breda	No	1,0	Academische PABO
Teacher 26	26 - 35	Woman	No	Algemeen-bijzondere basisschool (bijv. montessori, jenaplan, etc)	Leiden	No	unclear respo	PABO
Teacher 27	56 - 65	Woman	No	Confessioneel bijzondere school (bijv. christelijk, protestants, etc)	Utrecht	No	0,575	Other
Teacher 28	no response	Woman	Yes, a job that suits my preferences better	Openbare basisschool	Amsterdam	Yes	0,6	PABO
Teacher 29	no response	Man	No	Speciaal onderwijs (so)	Den Bosch	Yes	1,0	Other
Teacher 30	no response	Woman	No	Openbare basisschool	Den Haag	No	0,8	Zij-instroom

Figure 38 Output of the survey results of the 30 respondents

Appendix H. Documentation of the Q-analysis

The Q-analysis was executed with the help of KADE analysing software (Banasick, 2019). This application helped produced the following output data. First based in the input of the Q-sorts as presented in Figure 34, a correlation matrix is made. What follows is a factor analysis.

Correlation matrix

First the correlation matrix of the respondents is shown below.

Participant	T_1	T_2	T_3	T_4	T_5	T_6	T_7	T_8	T_9	T_10	T_11	T_12	T_13	T_14	T_15	T_16	T_17	T_18	T_19	T_20	T_21	T_22	T_23	T_24	T_25	T_26	T_27	T_28	T_29	T_30
Teacher 1	100	4	41	-48	33	11	14	-4	13	50	22	-12	24	-3	-12	9	37	39	51	41	31	6	24	31	-8	36	-23	-7	-10	-16
Teacher 2	4	100	24	17	35	4	18	-1	-6	4	-13	-16	26	4	37	30	9	56	18	32	-3	9	-20	13	11	-26	12	0	-3	39
Teacher 3	41	24	100	31	38	45	56	51	-3	49	38	-16	26	22	-28	46	36	16	65	38	47	-24	62	12	30	41	-16	-21	3	34
Teacher 4	-48	17	31	100	7	16	36	20	14	13	36	17	-1	11	10	34	-16	-21	-3	-4	-21	11	29	-50	22	7	20	15	11	29
Teacher 5	33	35	38	7	100	46	43	4	8	11	-3	4	44	32	-21	64	18	44	31	66	46	3	4	11	61	22	14	-32	4	42
Teacher 6	11	4	45	16	46	100	91	25	35	47	36	49	13	56	-1	46	10	26	31	39	78	36	27	24	47	66	35	-8	31	70
Teacher 7	14	18	56	36	43	91	100	34	29	54	53	47	18	49	7	56	6	39	46	44	66	37	39	14	44	68	25	0	35	74
Teacher 8	-4	-1	51	20	4	25	34	100	1	27	39	-16	14	38	-31	16	36	-1	35	32	46	-7	48	38	4	37	-11	9	36	26
Teacher 9	13	-6	-3	14	8	35	29	1	100	49	37	59	13	40	19	11	46	4	17	16	20	64	26	31	-2	35	51	49	46	11
Teacher 10	50	4	49	13	11	47	54	27	49	100	59	17	14	25	4	29	31	22	39	38	40	34	41	19	-4	52	-2	4	-3	16
Teacher 11	22	-13	38	36	-3	36	53	39	37	59	100	36	-11	22	16	13	12	-1	25	4	36	32	56	-14	-31	61	19	41	41	5
Teacher 12	-12	-16	-16	17	4	49	47	-16	59	17	36	100	-14	42	19	33	3	15	4	12	24	66	17	-10	5	42	62	30	46	34
Teacher 13	24	26	26	-1	44	13	18	14	13	14	-11	-14	100	8	-14	29	58	42	64	54	11	-12	35	19	43	-20	5	-50	-26	5
Teacher 14	-3	4	22	11	32	56	49	38	40	25	22	42	8	100	3	21	12	2	15	46	55	17	9	39	31	34	57	22	51	61
Teacher 15	-12	37	-28	10	-21	-1	7	-31	19	4	16	19	-14	3	100	-20	-13	8	-22	-6	-23	44	-31	-4	-41	-16	50	46	28	1
Teacher 16	9	30	46	34	64	46	56	16	11	29	13	33	29	21	-20	100	19	44	45	67	34	14	35	-10	51	26	0	-36	6	51
Teacher 17	37	9	36	-16	18	10	6	36	46	31	12	3	58	12	-13	19	100	24	61	37	29	14	51	49	-9	10	11	-8	15	-16
Teacher 18	39	56	16	-21	44	26	39	-1	4	22	-1	15	42	2	8	44	24	100	45	58	27	28	-1	30	26	21	-1	-26	-3	28
Teacher 19	51	18	65	-3	31	31	46	35	17	39	25	4	64	15	-22	45	61	45	100	54	39	-6	69	39	21	34	-20	-24	7	21
Teacher 20	41	32	38	-4	66	39	44	32	16	38	4	12	54	46	-6	67	37	58	54	100	39	19	20	33	40	25	11	-28	11	42
Teacher 21	31	-3	47	-21	46	78	66	46	20	40	36	24	11	55	-23	34	29	27	39	39	100	11	37	48	25	64	9	-11	37	44
Teacher 22	6	9	-24	11	3	36	37	-7	64	34	32	66	-12	17	44	14	14	28	-6	19	11	100	-3	15	-21	41	42	48	46	19
Teacher 23	24	-20	62	29	4	27	39	48	26	41	56	17	35	9	-31	35	51	-1	69	20	37	-3	100	-2	3	39	-14	-10	17	-7
Teacher 24	31	13	12	-50	11	24	14	38	31	19	-14	-10	19	39	-4	-10	49	30	39	33	48	15	-2	100	2	30	-4	17	39	24
Teacher 25	-8	11	30	22	61	47	44	4	-2	-4	-31	5	43	31	-41	51	-9	26	21	40	25	-21	3	2	100	6	3	-49	-14	60
Teacher 26	36	-26	41	7	22	66	68	37	35	52	61	42	-20	34	-16	26	10	21	34	25	64	41	39	30	6	100	2	26	46	31
Teacher 27	-23	12	-16	20	14	35	25	-11	51	-2	19	62	5	57	50	0	11	-1	-20	11	9	42	-14	-4	3	2	100	38	41	28
Teacher 28	-7	0	-21	15	-32	-8	0	9	49	4	41	30	-50	22	46	-36	-8	-26	-24	-28	-11	48	-10	17	-49	26	38	100	69	1
Teacher 29	-10	-3	3	11	4	31	35	36	46	-3	41	46	-26	51	28	6	15	-3	7	11	37	46	17	39	-14	46	41	69	100	33
Teacher 30	-16	39	34	29	42	70	74	26	11	16	5	34	5	61	1	51	-16	28	21	42	44	19	-7	24	60	31	28	1	33	100

Figure 39. Correlation matrix

Factor extraction - Unrotated Factor Matrix

The correlation matrix is used for the actual analysis part of the Q-analysis, the factor extraction. To determine the number of factors to extract, several aspects of the results are considered. As a first step the initial factors are extracted. There are two methodologies to do so, by a Centroid Factor Analysis or by a Principal Component Analysis. Watts & Stenner (2012) prefer the centroid factor analysis since it is not about finding the mathematically optimal solution but the most insightful one.

Therefore, 7 factors are extracted using centroid factor analysis extracting 'magical number' of seven factors as described by Brown (1980). This number is based on the fact that a seven-factor solution is in general suitable for every Q- research. These seven factors are shown below. Below is the unrotated factor matrix of the factor analysis, including the factor loading of each participant on each of the different factors. The factor extraction will group participants with similar Q-sorts, and thus viewpoints, by loading them onto the same factor.

Table 8. Unrotated factor matrix, loading seven factors

Nm ↑	Participant	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
1	Teacher 1	0.3063	0.4564	0.3633	0.1736	0.2947	0.1203	-0.2656
2	Teacher 2	0.276	0.2173	-0.4515	0.3514	-0.3172	-0.1499	-0.5345
3	Teacher 3	0.5778	0.4391	0.1326	-0.4487	-0.2802	-0.013	-0.1918
4	Teacher 4	0.2272	-0.3186	-0.2623	-0.4246	-0.5914	0.2036	-0.0497
5	Teacher 5	0.5131	0.345	-0.4177	-0.0368	0.164	-0.0814	0.0041
6	Teacher 6	0.7737	-0.1356	-0.1602	-0.3277	0.2869	0.0045	0.0184
7	Teacher 7	0.8566	-0.1197	-0.1684	-0.3391	0.061	0.1332	-0.1339
8	Teacher 8	0.4214	0.1661	0.3281	-0.3266	-0.2463	-0.3652	0.0429
9	Teacher 9	0.5545	-0.3464	0.2192	0.32	0.0417	0.1381	0.2219
10	Teacher 10	0.582	0.0494	0.2888	-0.1065	0.1169	0.3425	-0.22
11	Teacher 11	0.5161	-0.3107	0.4335	-0.2454	-0.2266	0.2763	-0.1538
12	Teacher 12	0.4762	-0.6046	-0.1184	0.0974	0.2185	0.3232	0.3139
13	Teacher 13	0.3402	0.6136	-0.224	0.2426	-0.2023	0.1551	0.3115
14	Teacher 14	0.6175	-0.2214	-0.1156	-0.0571	0.0666	-0.4717	0.2334
15	Teacher 15	0.0475	-0.4912	-0.1253	0.484	-0.211	0.0584	-0.3158
16	Teacher 16	0.5731	0.2567	-0.3766	-0.1927	0.0233	0.1663	0.0099
17	Teacher 17	0.4626	0.4347	0.392	0.402	-0.2001	0.0317	0.3759
18	Teacher 18	0.4587	0.3717	-0.2644	0.3553	0.2109	0.1459	-0.2756
19	Teacher 19	0.6057	0.5514	0.1721	0.0325	-0.1245	0.1599	0.0407
20	Teacher 20	0.6595	0.415	-0.2448	0.1189	0.1167	-0.03	0.0183
21	Teacher 21	0.6686	0.1199	0.1375	-0.2886	0.3099	-0.2039	0.1216
22	Teacher 22	0.4572	-0.5161	0.0418	0.3827	0.2144	0.2873	-0.0714
23	Teacher 23	0.4807	0.249	0.4392	-0.3008	-0.362	0.3419	0.3166
24	Teacher 24	0.394	0.2266	0.341	0.3535	0.3028	-0.5411	0.0227
25	Teacher 25	0.3014	0.2752	-0.6156	-0.3288	0.1931	-0.0793	0.2233
26	Teacher 26	0.648	-0.185	0.3973	-0.3307	0.3748	0.0669	-0.123
27	Teacher 27	0.3613	-0.5804	-0.3055	0.2979	-0.1291	-0.0572	0.2748
28	Teacher 28	0.1375	-0.7252	0.4181	0.2731	-0.1566	-0.2708	-0.2185
29	Teacher 29	0.4951	-0.5015	0.2413	0.1102	-0.0589	-0.3709	0.1017
30	Teacher 30	0.6055	-0.1309	-0.4955	-0.2406	0.1098	-0.3208	-0.098

Eigenvalues

Eigenvalues are a common criterion used in factor analysis. An eigenvalue represents the amount of variance accounted for by a factor. A common rule of thumb is using the Kaiser-Guttman criterion and retain factors with an eigenvalue greater than 1 (Watts & Stenner, 2012), as these factors account for more variance than a single variable (or Q-sort, in this case). We can see that the eigenvalue of factor one is significantly higher than that of the others. Taking the benchmark of one, we would keep all 7 factors. However, we don't want teacher profiles represented by only one Q-sort and therefore less factors will be chosen.

Table 9. Eigenvalues and explained variance.

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Eigenvalues	7.836	4.4855	3.0645	2.5816	1.7072	1.7415	1.4349
% explained variance	26	15	10	9	6	6	5
cumulative % explained variance	26	41	51	60	66	72	77

Stable factors
In order to see which factors load significantly onto the different factors a calculation was performed. A factor is considered stable if two or more defining Q-sorts load significantly on the factor, called a defining sort.
A significant factor loading at the 0.05 level can be calculated using the following equation: 1.96*(1÷ √number of items in the Q-set). In this case 1.96*(1÷ √21) = 0.428.
Now looking at Table 8, the factors can be tested to this threshold.

- Factor 1 has 20 > 0.428 = enough
- Factor 2 has 5 > 0.428 = enough
- Factor 3 has 2 > 0.428 = enough
- Factor 4 has 1 > 0.428 = not enough
- Factor 5,6 and 7 have 0 > 0.428 = not enough

The Scree Test
The Scree Test involves plotting the eigenvalues and identifying where the 'elbow' or break in the plot occurs. Factors above this break (where the eigenvalues are larger) are typically retained (Cattell, 1966). Based on the Scree test we would retain three or five factors, depending on how steep the break in the slope is judged.

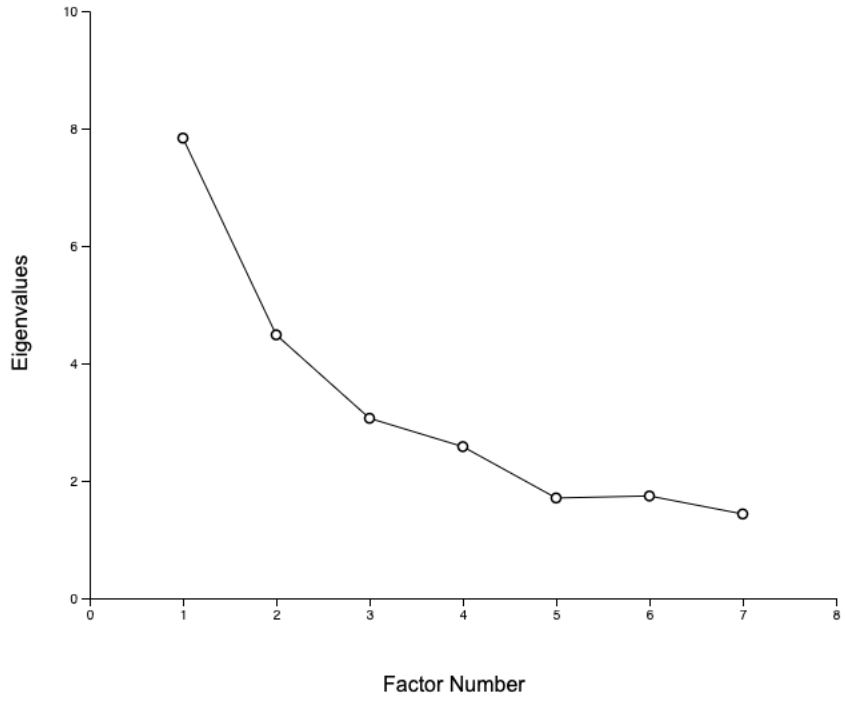


Figure 40. Scree plot of factors

Humphrey's rule
According to Brown (1980), 'a factor is significant if the cross-product of its two highest loadings exceed twice the standard error', ignoring the sign of the factor. This leads to the following calculations:

The Standard error	1÷ √number of items in the Q-set = 1÷ √21 = 0.218
The threshold	2* 0.218 = 0.436

- Factor 1: 0.8566*0.7737 = 0.663 > 0.436 = enough

- Factor 2: 0.7252*0.6136 = 0.445 > 0.436 = enough
- Factor 3: 0.6156*0.4955 = 0.305 < 0.436 = not enough
- Factor 4: 0.4840*0.4487 = 0.217 < 0.436 = not enough
- Factor 5: 0.5914*0.3748 = 0.222 < 0.436 = not enough
- Factor 6: 0.5411*0.4717 = 0.255 < 0.436 = not enough
- Factor 7: 0.5345*0.3759 = 0.201 < 0.436 = not enough

Factor 1 and 2 should certainly be analysed, and according to this criterium Factors 3 until 7 do not pass the test. However, if we uphold the less strict criterium of surpassing the standard error (and not doubled) then factors 3, 5 and 6 could also be eligible for analysis.

Percentage of Variance Explained
For the factor analysis the goal is to account for an as high percentage of explained variance as possible. With a high explained variance we can understand the most relationships within the set of Q-sorts as possible (Watts & Stenner, 2012). Most Q-methodology researchers suggest retaining factors that together account for a at least 35-40% of the total variance (Kline, 2014).

Conclusion
Based on the analyses above it is chosen to continue with the first three factors, factor 1,2 and 3 for the next part of the analysis.

Factor rotation – Varimax rotation
After the chosen number of factors, the factor rotation can be applied to maximize the difference between each of the factors. This does not alter the results, but changes the observation position in order to optimize the loading of each Q-sort (Watts & Stenner, 2012). Loads can range between 1 and -1, 1 meaning perfect agreement with the Factor and -1 being perfect disagreement (Donner, 2001).
After the varimax rotation is applied, from the 30 participants, 27 teachers only load significant on a single factor. Teacher 26 loaded most significant on Factor 1 (0.584) but also significant on Factor 2 (0.519). Teacher 30 loaded predominantly on Factor 3 (0.619), but also on Factor 2 (0.495). Teacher 4 loaded just below significant on Factor 2 (0.404) but was included in the analysis due to the slight difference with the calculated threshold of 0.428 as calculated during the stable factor loading.
Below an overview of the factor loadings after applying Varimax rotation.

Table 10 Factor loading after Varimax rotation with auto-flag at P < 0.05

Num...	Participant	FG	Factor 1	F.	Factor 2	F.	Factor 3	F.
17	Teacher 17	F1-1	0.7285	☑	-0.085	☐	0.1368	☐
19	Teacher 19	F1-2	0.7175	☑	-0.08	☐	0.4236	☐
23	Teacher 23	F1-3	0.6929	☑	0.0711	☐	0.03	☐
3	Teacher 3	F1-4	0.6265	☑	-0.0058	☐	0.3895	☐
1	Teacher 1	F1-5	0.6231	☑	-0.1955	☐	0.0874	☐
26	Teacher 26	F1-6	0.5836	☑	0.5192	☐	-0.043	☐
10	Teacher 10	F1-7	0.5694	☑	0.2985	☐	0.1059	☐
24	Teacher 24	F1-8	0.5646	☑	0.0413	☐	0.0484	☐
21	Teacher 21	F1-9	0.5505	☑	0.3026	☐	0.293	☐
8	Teacher 8	F1-10	0.5472	☑	0.1066	☐	0.0456	☐
12	Teacher 12	F2-1	-0.0443	☐	0.7744	☑	0.0672	☐
27	Teacher 27	F2-2	-0.2297	☐	0.6952	☑	0.1574	☐
29	Teacher 29	F2-3	0.2521	☐	0.686	☑	-0.1441	☐
22	Teacher 22	F2-4	0.089	☐	0.6846	☑	-0.0223	☐
28	Teacher 28	F2-5	0.0583	☐	0.6383	☑	-0.5557	☐
7	Teacher 7	F2-6	0.3586	☐	0.622	☑	0.5108	☐
9	Teacher 9	F2-7	0.3389	☐	0.5998	☑	-0.0297	☐
6	Teacher 6	F2-8	0.3069	☐	0.5841	☑	0.4553	☐
14	Teacher 14	F2-9	0.2054	☐	0.5555	☑	0.3049	☐
11	Teacher 11	F2-10	0.4744	☐	0.5374	☑	-0.1922	☐
15	Teacher 15	F2-11	-0.2624	☐	0.4253	☑	-0.0976	☐
4	Teacher 4	F2-12	-0.172	☐	0.4038	☑	0.1711	☐
25	Teacher 25	F3-1	-0.1132	☐	-0.0052	☐	0.7299	☑
5	Teacher 5	F3-2	0.1781	☐	0.0575	☐	0.7223	☑
20	Teacher 20	F3-3	0.4129	☐	0.0818	☐	0.6999	☑
16	Teacher 16	F3-4	0.2049	☐	0.1619	☐	0.6841	☑
30	Teacher 30	F3-5	-0.0186	☐	0.4954	☐	0.6193	☑
13	Teacher 13	F3-6	0.316	☐	-0.2703	☐	0.6079	☑
18	Teacher 18	F3-7	0.2591	☐	-0.0044	☐	0.5927	☑
2	Teacher 2	F3-8	-0.043	☐	0.0172	☐	0.5702	☑

Factor characteristics

From the characteristics of the Factors, it can be observed that the number of defining variables is quite even amongst the Factors. Factor 2 has the highest number, also taking into account that one of both Factors 1 and 3 also had a significant load on factor 2. The reliability coefficient determents weather a factor is reliable, with a threshold at 0.80 (Brown, 1980), and therefore all factors pass this test. The Z-score determines how precise the statements can be analysed in terms of factor scores, with a lower Z-score being more precise (Brown, 1980).

Table 11 - Factor characteristics Varimax factor rotation

Factor Characteristics

	Factor 1	Factor 2	Factor 3
No. of Defining Variables	10	12	8
Avg. Rel. Coef.	0.8	0.8	0.8
Composite Reliability	0.976	0.98	0.97
S.E. of Factor Z-scores	0.155	0.141	0.173

Correlations

To see if the different factors are representing different factors (and thus viewpoints), we observe the correlation between each factor. From this table we can see the correlations between factors. Factors 1 and 3 do have a score of 0.41 but this is just not significant to establish a significant correlation given the threshold of 0.436. If a significant load occurs Brown (1980) suggests observing the factors as alternative manifestations of the same factor. For Factors 1 and 3 it might be good to take this into account when evaluating the perspectives, though the load is not significant. Factors 2 and 3 have the least in common, followed by Factors 1 and 2.

Table 12. Correlations between Factor Scores of Varimax rotation.

Correlations between Factor Scores

	Factor 1	Factor 2	Factor 3
Factor 1	1	0.2608	0.4104
Factor 2	0.2608	1	0.1844
Factor 3	0.4104	0.1844	1

Factor scores with corresponding ranks

The table below presents the statements with their corresponding Z-scores for each factor. Next to this, the statement rank for each factor is given ranging from agree to disagree. Based on these scores the consensus and disagreement statements can be determined. These will be displayed next.

Table 13. Z-score of each statement for the different factors

Statement #	Statement	Factor 1 Z-score	Factor 1 Rank	Factor 2 Z-score	Factor 2 Rank	Factor 3 Z-score	Factor 3 Rank
1	Living near school	-2.08	21	-0.2	14	-1.68	21
2	A permanent contract	-0.98	18	0.04	12	-0.33	12
3	Working part time	-1.74	20	0.49	9	-0.48	14
4	Attention to work pressure	1.1	3	1.19	3	-0.43	13
5	A good salary	-0.1	12	0.91	5	0.75	8
6	Choose your own teaching methods	-0.45	15	-0.6	15	-0.29	11
7	Determine how I teach	-0.09	11	1.33	2	0.98	4
8	Few administrative tasks	0.11	10	0.19	10	-1.38	19
9	Thinking along with school policy	0.11	9	-1.38	20	1.53	1
10	Well-kept facilities (school building, IT)	-0.55	16	-0.2	13	-0.58	16
11	Being able to move on to other positions (school leader, IB'er)	-0.68	17	-1.82	21	1.02	3
12	Being able to grow within my position (specialise)	-0.33	14	-0.68	16	0.76	7
13	School leader with a clear vision (educational, pedagogical)	1.07	4	0.07	11	0.96	5
14	School leader who manages the team effectively	0.82	6	0.65	7	1.27	2
15	School leader who is trustworthy	1.32	2	1.54	1	0.86	6
16	A close-knit team	0.91	5	0.99	4	0.69	9
17	Inspiring colleagues	0.78	7	0.6	8	0.52	10
18	Help underprivileged children	1.62	1	-1.17	17	-0.52	15
19	Being much needed (teacher shortage)	-1.18	19	-1.36	19	-1.45	20
20	Helping students with special needs (special (primary) education)	0.53	8	-1.3	18	-1.18	18
21	Small classes	-0.2	13	0.74	6	-1.02	17

Consensus statements

Below is an overview of the statements that are considered the consensus statement. These do not distinguish significantly between any pair of three factors. Therefore, they can be seen as the significant consensus statements. This does not say anything about how much the teachers agreed with this statement. We can see that most consensus statements score somewhere in the middle, concluding that no teacher profile feels very strongly about these statements. The exemption is statement 19, being much needed. Teachers collectively agree this is not an important reason when choosing a job.

Table 14. Consensus statements that have no distinguishment between any pair of factors

Consensus Statements -- Those That Do Not Distinguish Between ANY Pair of Factors All Listed Statements are Non-Significant at p<0.01, and Those Flagged with an * are also Non-Significant at p<0.05)								
Statement Number	Statement	Statement Number2	Factor 1 Q-SV	Factor 1 Z-score	Factor 2 Q-SV	Factor 2 Z-score	Factor 3 Q-SV	Factor 3 Z-score
6	Choose your own teaching methods	6	-1	-0.446	-1	-0.603	0	-0.287
10	Well-kept facilities (school building, IT)	10	-2	-0.551	-1	-0.2	-2	-0.584
16	A close-knit team	16	2	0.912	3	0.992	1	0.689
17	Inspiring colleagues	17	1	0.782	1	0.597	0	0.516
19	Being much needed (teacher shortage)	19	-3	-1.179	-3	-1.364	-4	-1.453

Table 15. Ranking of all statements based on Z-scores ranking the consensus from high to low.

Statement #	Statement	Δ Factor 1 vs 2	Δ Factor 1 vs 3	Δ Factor 2 vs 3	Average Δ Z-score
17	Inspiring colleagues	0.18	0.26	0.08	0.17
19	Being much needed (teacher shortage)	0.18	0.27	0.09	0.18
16	A close-knit team	0.08	0.22	0.30	0.20
6	Choose your own teaching methods	0.15	0.16	0.31	0.21
10	Well-kept facilities (school building, IT)	0.35	0.03	0.38	0.25
14	School leader who manages the team effectively	0.17	0.45	0.62	0.41
15	School leader who is trustworthy	0.22	0.46	0.68	0.45
13	School leader with a clear vision (educational, pedagogical)	1.00	0.11	0.89	0.67
5	A good salary	1.01	0.85	0.16	0.67
2	A permanent contract	1.02	0.65	0.37	0.68
7	Determine how I teach	1.42	1.07	0.35	0.95
12	Being able to grow within my position (specialise)	0.35	1.09	1.44	0.96
8	Few administrative tasks	0.08	1.49	1.57	1.05
4	Attention to work pressure	0.09	1.53	1.62	1.08
21	Small classes	0.94	0.82	1.76	1.17
20	Helping students with special needs (special (primary) education)	1.83	1.71	0.12	1.22
1	Living near school	1.88	0.40	1.48	1.25
3	Working part time	2.23	1.26	0.97	1.49
18	Help underprivileged children	2.79	2.14	0.65	1.86
11	Being able to move on to other positions (school leader, IB'er)	1.14	1.70	2.84	1.89
9	Thinking along with school policy	1.49	1.42	2.91	1.94

Distinguishing statements per factor

Below is a list of distinguishing statements per factor. These statements are the most significant to determine the profile on. The number of distinguishing statements per factor differs between seven to nine. Further we can see that some statements exist in multiple factors, such as statement 11 (Being able to move on to other positions), this means that this statement is judges strong but differently amongst the profiles.

Table 16. Distinguishing statements of Factor 1

Factor 1

Threshold	Z-score	Q Sort Value	Number	Statement
P < 0.0001	-1.74	-4	3	Working part time
P < 0.005	-0.98	-3	2	A permanent contract
P < 0.0001	-0.68	-2	11	Being able to move on to other positions (school leader, IB'er)
P < 0.0005	-0.2	-1	21	Small classes
P < 0.0005	-0.1	0	5	A good salary
P < 0.0001	-0.09	0	7	Determine how I teach
P < 0.0001	0.11	1	9	Thinking along with school policy
P < 0.0001	0.53	1	20	Helping students with special needs (special (primary) education)
P < 0.0001	1.62	5	18	Help underprivileged children

Sorts weight of teachers loading to Factor 1 (from strongest to least strong):

Q-Sort	Weight
Teacher 17	10.0
Teacher 19	9.5
Teacher 23	8.6
Teacher 3	6.6
Teacher 1	6.6
Teacher 26	5.7
Teacher 10	5.4
Teacher 24	5.3
Teacher 21	5.1
Teacher 8	5.0

Figure 41. Q-sorts of teachers loading onto Factor 1

Table 17. Distinguishing statements of Factor 2

Factor 2

Threshold	Z-score	Q Sort Value	Number	Statement
P < 0.0001	-1.82	-5	11	Being able to move on to other positions (school leader, IB'er)
P < 0.0001	-1.38	-4	9	Thinking along with school policy
P < 0.005	-1.17	-2	18	Help underprivileged children
P < 0.0001	-0.2	-1	1	Living near school
P < 0.0001	0.07	0	13	School leader with a clear vision (educational, pedagogical)
P < 0.0001	0.49	1	3	Working part time
P < 0.0001	0.74	2	21	Small classes

Sorts weight of teachers loading to the profile of Factor 2 (from strongest to least strong):

Q-Sort	Weight
Teacher 12	12.46
Teacher 27	8.67
Teacher 29	8.35
Teacher 22	8.30
Teacher 28	6.94
Teacher 7	6.54
Teacher 9	6.03
Teacher 6	5.71
Teacher 14	5.18
Teacher 11	4.87
Teacher 15	3.34
Teacher 4	3.11

Figure 42. Q-sorts of teachers loading onto Factor 2

Table 18. Distinguishing statements of Factor 3

Factor 3

Threshold	Z-score	Q Sort Value	Number	Statement
P < 0.0001	-1.38	-3	8	Few administrative tasks
P < 0.0005	-1.02	-2	21	Small classes
P < 0.005	-0.52	-1	18	Help underprivileged children
P < 0.0001	-0.48	-1	3	Working part time
P < 0.0001	-0.43	-1	4	Attention to work pressure
P < 0.0001	0.76	1	12	Being able to grow within my position (specialise)
P < 0.05	0.86	2	15	School leader who is trustworthy
P < 0.0001	1.02	3	11	Being able to move on to other positions (school leader, IB'er)
P < 0.0001	1.53	5	9	Thinking along with school policy

Sorts weight of teachers loading to Factor 3 (from strongest to least strong):

Q-Sort	Weight
Teacher 25	10.1
Teacher 5	9.7
Teacher 20	8.8
Teacher 16	8.3
Teacher 30	6.5
Teacher 13	6.2
Teacher 18	5.9
Teacher 2	5.4

Figure 43. Q-sorts of teachers loading onto Factor 3.

Factor visualisations

Lastly the visualisations for each of the three factors is included below. These visualisations also state the distinguishing statements and the highest and lowest scoring statements within the profiles. Below is the visualisation of Factor 1, the service-focussed Teacher.

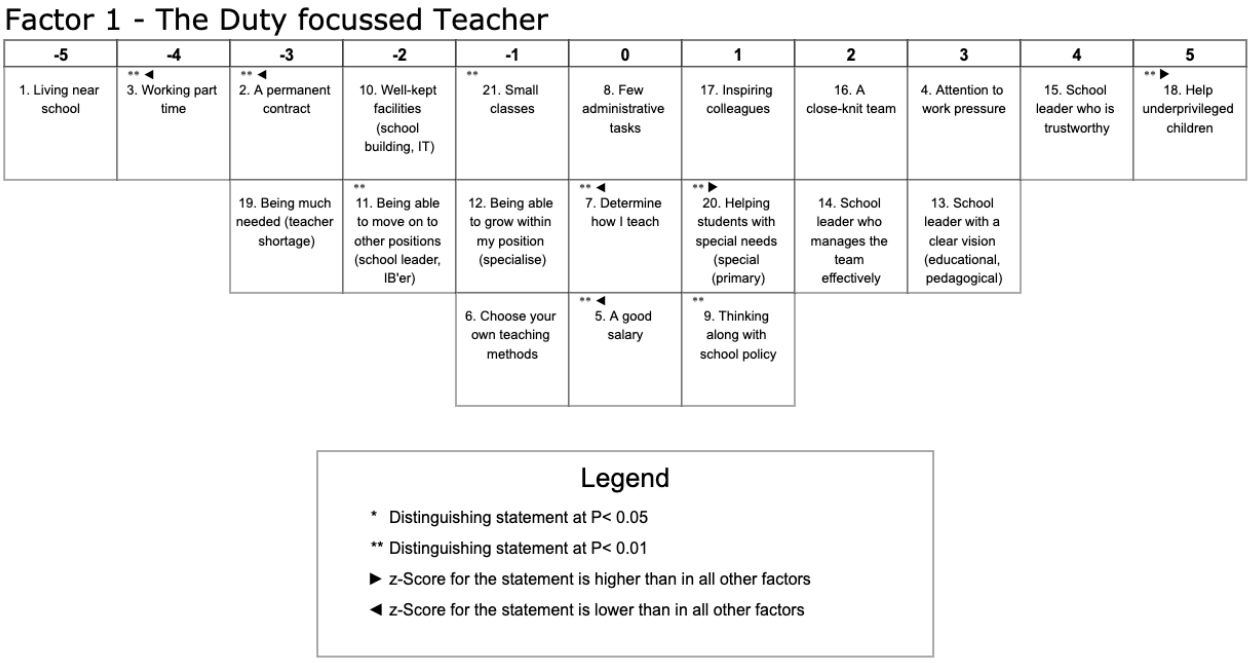


Figure 44. Factor 1 - The Service Focussed Teacher.

Below is the visualisation of Factor 2, the classroom-Focussed Teacher.

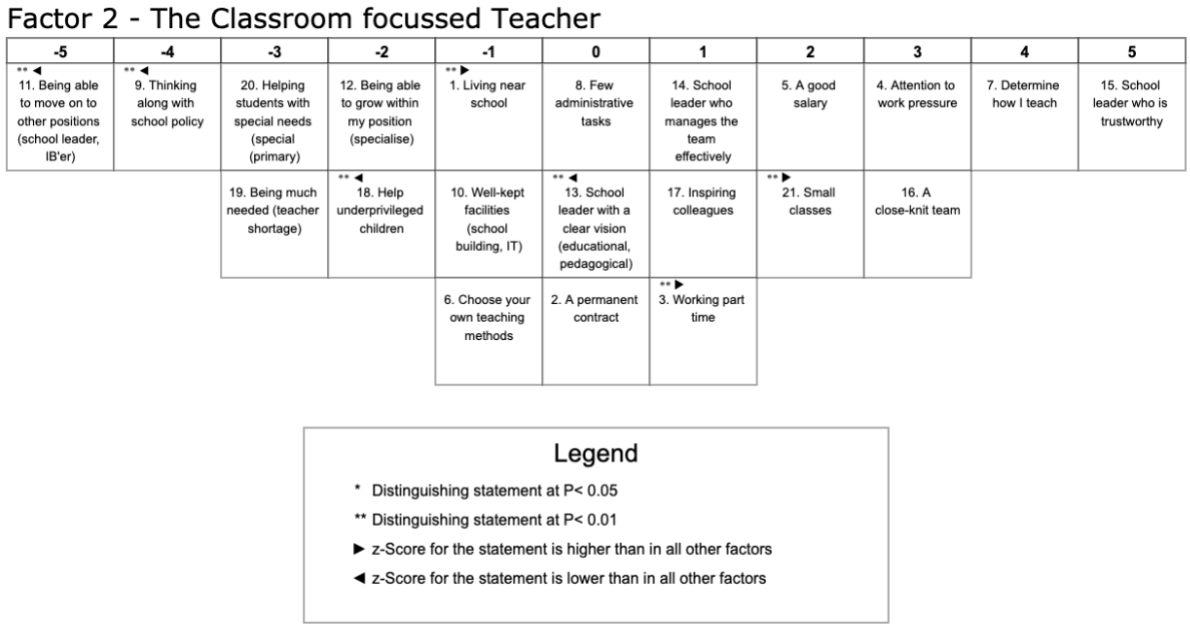


Figure 45. Factor 2 - The classroom focussed teacher.

Below is the visualisation of Factor 3, the career-Focussed Teacher.

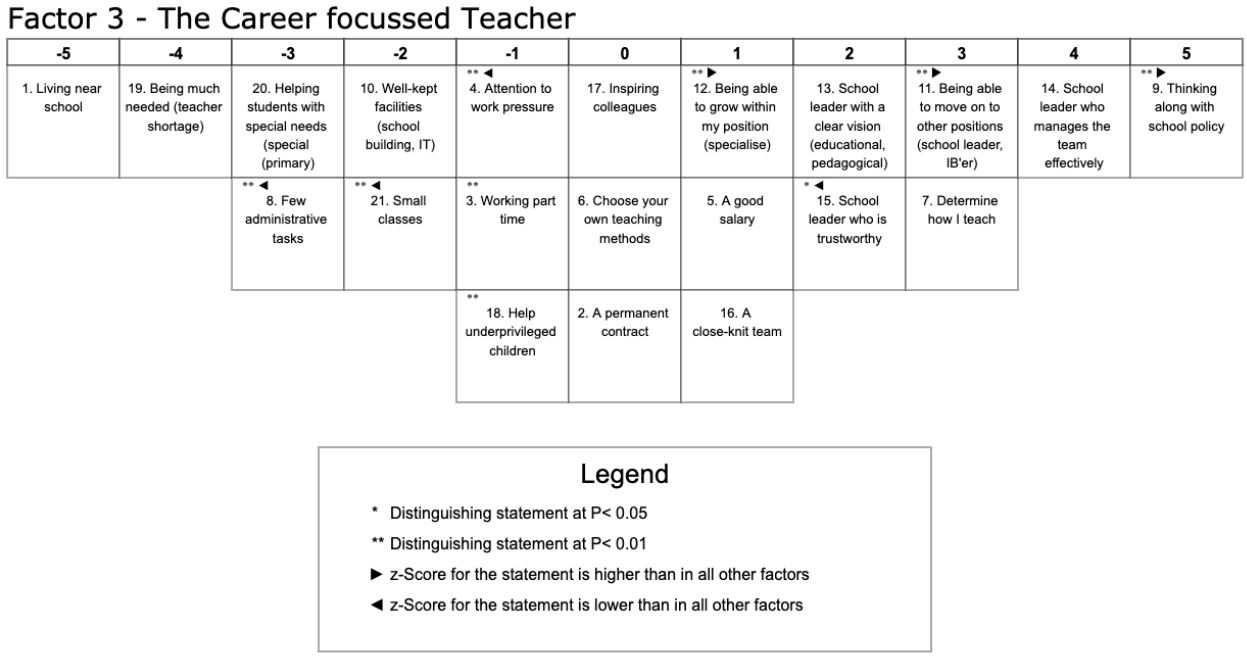


Figure 46. Factor 3 - The career focussed teacher.